Attachment 5. Sundance Helicopters General Operations Manual and Operations Specifications

DCA12MA020 Maintenance Factual Report

Cover Page

Date: January 20, 2011
Revision: 12

General Operations Manual

5596 Haven St., Las Vegas, NV 89119
(702) 736-0606

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Permanent Revision Record

REVISION: Original
DATE: June 9, 2005

Signature of the Manual Holder in the "Inserted By" column signifies that the revision has been reviewed and incorporated into this manual.

Revision Number	Issue Date	Date Inserted	Inserted By
1	9/29/06	1/6/07	KB
2	8/24/07	8/31/07	KB
3	10/14/07	5/8/08	KB
4	10/18/08	10/10/08	KB
5	2/20/09	3/16/09	KB
6	3/24/09	3/26/09	KB
7	6/1/09	6/22/09	KB
8	10/1/09	11/16/09	KB
9	7/22/10	7/22/10	KB
10	10/1/10	2/1/11	KB
11	11/15/10	11/15/10	KB
12	1/20/11	1/20/11	KB

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Record of Bulletins

— Circumstances requiring a special revision are accomplished on a time-critical basis, a bulletin may be issued to the GOM. Insert Bulletins in chronological order.

— Follow the guidance in 1.7 Posting Revisions To This Manual for the insertion and recording of manual and bulletin revisions.

— For missing pages, contact the Director of Operations.

Bul. Number	Date Posted	Subject (Remarks)	Date Removed

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Date: 1 October 2010
Revision: 10

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FAA ACCEPTED
DATE: 02/14/2011
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Table of Contents

1. Manual Administration

1.1. PURPOSE

Source: Federal Aviation Regulation 135.21(a) requires Sundance to prepare and keep current a 'manual' for the use and guidance of flight, ground operations, and management personnel in conducting operations. Per FAR 135.21(b) Sundance produces the 'manual' required by FAR in several different user manuals and incorporates manuals from outside sources into its manual system.

1.1.1 This chapter provides guidance for the...

a. Availability of this manual

b. Compliance with this manual

c. Revision of this manual

d. Understanding of the manual formatting

e. Application of standard symbols or methods.

• Note •

The General Operations Manual (GOM) 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 Part 135.21(a), (d)(1) and (2), and (g), 14 CFR Part 135.23(s)

1.2.1 The GOM is a primary user manual for Sundance Helicopters, Inc., Company 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.

1.2.2 The GOM provides policies and procedures for evaluation of all company departments and personnel on a routine basis.

1.2.3 The FAA's copy of this manual is assigned to the Director of Operations.

1.2.4 Portions of this manual are distributed and assigned to all operations personnel.

1.3. MANAGEMENT CONTROLS

1.3.1 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 the work product meets the required and identified standards of completion and/or regulatory compliance.

1.3.2 The points within the policies and procedures designated as "controls" by management are identified by the symbol ►. All employees (whether company or contract) are expected to exercise special care ensuring the work product meets company standards.

1.3.3 To further emphasize the need for the employee to exercise special care, words such as "confirm," "verify," "review," etc. are used in conjunction with this symbol.

1.4. AVAILABILITY OF THIS MANUAL

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

1.4.1 The GOM is available and accessible to all departments when performing their assigned duties.

1.4.2 To comply with this policy, company personnel have access to a company network connected computer. If no access to the company network is available, a copy of the manual on CD is provided.

1.4.3 For an individual not having the capability to access the manual electronically, a printed hard copy is provided.

1.5. COMPLIANCE WITH THIS MANUAL

Source: 14 CFR Part 135.21(e)

1.5.1 Each assigned user must comply with policies and procedures provided in this manual. New or updated standards, policies, and procedures are communicated by published Bulletins. 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.

1.5.2 ▶ If the user identifies any policy or procedure which might not be consistent with a CFR, the information must be immediately communicated to the Director of Operations.

• Note •

Follow the procedures outlined in the GOM to report policy or procedures having the potential to cause unsafe consequences.

1.6. MAINTENANCE AND OWNERSHIP OF MANUAL

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

1.6.1 The GOM is maintained in current status by the assigned user in accordance with the policies and procedures specified in this chapter.

1.6.2 This manual is considered the property of the company and must be relinquished to the company in the event of the user's retirement, termination, transfer, or contract termination.

1.6.3 One master copy of this manual will be held at the company's principal base of operations.

1.6.4 The content of this manual is managed and updated by the Director of Operations and is the express property of the company.

• Note •

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

1.6.5 List of Manual Holders.

a. It is the Manual Holder's responsibility to notify the Director of Operations and provide changes in manual ownership.

b. The master copy is located in the Operations Department. A list of manual holders is in the possession of the Director of Operations.

1.7. Posting Revisions To This Manual

Source: 14 CFR Part 119.43(c), 14 CFR Part 135.21(e), 14 CFR Part 135.23

1.7.1 Revision Insertion.

a. The most current revision of the GOM, including the Operations Specifications, is posted on the company network. Revision notification is made to authorized employees via announcement through a letter of transmittal, email, or other written means.

b. Paper revisions are provided to all persons on the distribution list that have printed versions of this manual.

c. ▶ Users of this manual are required to confirm to the Director of Operations receipt of manual updating materials and their review and insertion of those materials in this manual on or before the revision's effective date.

• Note •

A revision may be inserted and recorded as soon as it is received even if it is issued more than two weeks prior to the effective date.

1.7.2 Procedure

a. Review the Letter of Transmittal for the current revision.

b. Read and follow the instructions section of the Letter of Transmittal.

c. Familiarize oneself with the changes made in the current revision; pertinent information on each change is contained in the Summary section of each Letter of Transmittal.

d. Follow the procedures outlined in this manual for proper disposal of superseded pages.

e. Record, sign, and date the insertion of the change on the Permanent Revision Record of this manual (Page iii).

1.7.3 Insertion of List Of Effective Pages (LOEP).

a. An LOEP (beginning at Master List of Effective Pages) is issued for the original and all revisions to this manual.

b. The LOEP is required by the FAA as a controlling reference for the page currency of the manual.

c. Only the most current LOEP is retained in the manual.

d. ▶ Use the LOEP to verify all pages of the manual are current.

1.8. Identifying Revisions

Source: 14 CFR Part 135.23

1.8.1 Summary/Action Section of Letter of Transmittal

a. Each revision contains a summary section reflecting important information concerning the revision.

b. The "action" section contains pertinent instructions for inserting revision pages.

1.8.2 Change Bars.

a. Black vertical change (|) bars in the outside margin are used to highlight the location of revised or deleted information on a newly published page.

b. Change bars are not to be used opposite the new date on a revised page, to indicate format and page number changes, on index pages, or other pages normally generated automatically by word processors on contents pages.

c. With the next revision of a page previous change bars are deleted.

1.8.3 Recording Revision Insertion. To indicate review and insertion of a revision the user must record the revision's effective date and their initials after the appropriate revision number on the Record of Revisions page located in the front of the manual.

1.8.4 Page Disposal.

a. The manual holder is responsible for destroying out-of-date pages and the old revision summary pages/revisions.

b. ▶ Verify all out-of-date pages are irretrievably destroyed by shredding, cutting, tearing, or another form of destruction, ensuring the information cannot be successfully pieced together.

• Note •

Out-of-date and the old revision summary pages/revisions must not be discarded in a hotel, an airport, or other public area trash receptacles.

1.8.5 Proposing Revisions.

a. The success of the company manual system depends on employees and contractors 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.

b. An employee or contractor may propose changes to the company manuals.

c. Further questions about the management of the company manual system are directed to the Director of Operations.

1.9. Posting Of Bulletins To This Manual

Source: 14 CFR Part 135.21(e)

1.9.1 Circumstances requiring a special revision are accomplished on a time-critical basis; a bulletin may be issued to the GOM. To indicate review and insertion of such a bulletin, the assigned users must record the bulletin's effective date and their initials after the appropriate bulletin number on the Record of Bulletins page.

1.9.2 ▶ Each bulletin will carry an expiration date.

• Note •

Paper-based bulletins are printed on paper colors other than white and include detailed instructions for insertion at the appropriate place in the manual.

1.9.3 Electronic versions of bulletins will be clearly identified with the word, "Bulletin" as the heading.

1.9.4 ▶ When the information contained in a bulletin is incorporated into the normal text of the manual by way of a permanent revision the assigned user is instructed on a revision summary to remove the bulletin pages.

1.9.5 ▶ Verify all out-of-date bulletin pages are irretrievably destroyed by shredding, cutting, tearing, or another form of destruction, ensuring the information cannot be successfully pieced together.

• Note •

Out-dated bulletins must not be discarded in a hotel, an airport, or other public area trash receptacles.

1.10. Rules of Construction

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

CFR, CFRs, FAR, or FARs. These acronyms are abbreviations for Federal Aviation Regulations (FARs) which are included in Title 14 Code of United States Federal Regulations (CFRs).

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

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

Gender. The male or female gender may be used in a generic sense to designate both sexes. May. The word "may" is used in a permissive sense to state authority or permission to do an act. Compliance is not mandatory.

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.

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

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.**

1.11. Positioning Of Manual Content

Source: 14 CFR Part 119.43(b)(1) and (2)

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

1.11.1 Policy.

a. Text providing guidance regarding the goals or standards of the organization is considered "policy;"

b. 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.

c. Throughout this manual references to CFRs and Operations Specifications have been expressed as or embedded in company policy.

1.11.2 Information.

a. Text providing pertinent background or further clarifies the policy or a specific procedural step is considered "information"

b. Throughout this manual information is provided containing embedded discussion taken from FAA and other government advisory documents.

1.11.3 Instructions.

a. Text which provides a listing of the possible considerations when accomplishing a task is defined as "instructions"

b. "Instructions" differ from "procedures" in that the successful accomplishment of the tasks is not predicated on their accomplishment in a specific order

c. Throughout this manual there are "instructions" taken, in part or as group, from the CFRs and FAA advisory documents.

• Note •

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

1.11.4 Procedures.

a. Text which provides a specific order of accomplishment of series of tasks is considered a "procedure".

b. The procedure may have 2 or more detailed steps. The reader is able to ascertain "who, what, when, where, why, and how" from the procedure and its associated policy.

c. Throughout this manual there are "procedures" leading to a completed result necessary to meet the CFR requirements.

d. Procedures in this manual are usually, but not in all cases, enclosed in a numeric procedural table depending on the complexity.

1.12. Use of a Note, Caution, or Warning

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.

1.12.1 Note.

• Note •

A Note provides amplified information, instruction, or emphasis. It calls attention to methods which 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.

1.12.2 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 which 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.

1.12.3 Warning.

WARNING

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

1.12.4 "Intentionally Left Blank".

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

1.13. Manual Contents and Philosophy

1.13.1 Outline.

a. The GOM is one manual comprised of multiple chapters sharing philosophical, policy, procedural, control, process measurement, and interface attributes.

b. The Internal Evaluation Program is one chapter comprised of multiple sections sharing requirements that are task-specific to the auditors.

c. The Operations Department will conduct self-audits as described in Chapter 5 of this manual: Self Audit Program

d. The Director of Safety is responsible for Internal Evaluation Program as described in Section 8.7 of the Safety Management System Manual.

1.14. Manual Overall Quality and Content

Source: 14 CFR Part 135.23

1.14.1 Responsibility. The Director of Operations is responsible for the quality and content of the GOM.

1.14.2 Delegated Authority.

The Director of Operations is delegated the authority to authorize revisions to this manual.

1.14.3 Interfaces for Manual Consistency.

a. 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.

b. The Director of Operations 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.

Table 1.1 Manual Interfaces

Corporate Operations Manual	Flight Operations Training Manual
Fuel Quality Manual	General Maintenance Manual
Minimum Equipment List(s)	Safety Management System Manual

1.14.4 Process Measurement. The following process measurement actions are taken with respect to company policies and procedures.

a. Internal Evaluation Program (IEP). Monitors and analyzes the performance and effectiveness of company programs.

b. The Director of Safety ensures the company and its contractors conducting IEP audits conduct their evaluations in accordance with the GOM on a regularly scheduled basis.

c. IEP audits evaluate the performance and effectiveness of company programs in producing the desired results, including those functions performed by contracted companies.

d. 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 CFRs, and other external requirements.

e. The entire IEP Program is contained in Section 8.7 of the Safety Management System Manual.

1.14.5 Special Observations.

Any Director level officer or above may request a special observation, coordinated by the Director of Safety in accordance with the Safety Policies and Procedures Manual.

2. Operations Specifications

Table of Contents

Part A

A001. Issuance and Applicability

HQ Control: 05/09/03
HQ Revision: 02c

a. These operations specifications are issued to SUNDANCE HELICOPTERS INC, whose principal base of operation is located at:

Primary Business Address:
5596 Haven Street
Las Vegas, NV 89119

Mailing Address:

The holder of these operations specifications is the holder of Air Carrier Certificate Number KBMA477F and shall hereafter be referred to as the certificate holder. The certificate holder is authorized to conduct:

On Demand (135)	operations in	Common	carriage pursuant to Title 14 Code of Federal Regulations (CFR) Section	119.25(b) - On Demand HEL	and provided, at all times, the certificate holder has appropriate written economic authority issued by the Department of Transportation.

The certificate holder shall conduct these kinds of operations in accordance with the specific authorizations, limitations, and procedures in these operations specifications and all appropriate Parts of the CFR.

b. These operations specifications are effective as of the "Date Approval is effective" listed in each paragraph and shall remain in effect as long as the certificate holder continues to meet the requirements of Part 119 as specified for certification.

c. The certificate holder is authorized to conduct the operations described in subparagraph a under the following other business names:

Helicop Tours
Sundance Helicopters

d. The certificate holder is authorized to conduct flights under 14 CFR Part 91 for crewmember training, maintenance tests, ferrying, re-positioning, and the carriage of company officials using the applicable authorizations in these operations specifications, without obtaining a Letter of Authorization, provided the flights are not conducted for compensation or hire and no charge of any kind is made for the conduct of the flights.

1. Issued by the Federal Aviation Administration.
2. Support information reference:
3. These Operations Specifications are approved by direction of the Administrator.

[redacted]

Kay, Martin F. Principal Operations Inspector WP19

4. Date Approval is effective: 1/16/08 Amendment Number: 7
5. I hereby accept and receive the Operations Specifications in this paragraph.

[redacted]

Barton, Kurt Director of Operations Date: 1/16/08

A002. Definitions and Abbreviations

HQ Control: 01/04/07
HQ Revision: 110

Unless otherwise defined in these operations specifications, all words, phrases, definitions, and abbreviations have identical meanings to those used in Title 14 Code of Federal Regulations (CFR) and Title 49 United States Code as cited in Public Law 103-272, as amended. Additionally, the definitions listed below are applicable to operations conducted in accordance with these operations specifications.

Term or Terms	Definition
Agent(s)	The significance of the words "agent" and "agents" as used in these operations specifications is that the certificate holder is the principal and that the certificate holder is accountable and liable for the acts or omissions of each of its agent or agents.
Air Ambulance Aircraft	An aircraft used in air ambulance operations. The aircraft must be equipped with at least medical oxygen, suction, and a stretcher, isolette, or other approved patient restraint/containment device. The aircraft need not be used exclusively as an air ambulance aircraft and the equipment need not be permanently installed.
Air Ambulance Operations	(a) Air transportation of a person with a health condition that requires medical personnel as determined by a health care provider; or (b) Holding out to the public as willing to provide air transportation to a person with a health condition that requires medical personnel as determined by a health care provider including, but not limited to, advertisement, solicitation, association with a hospital or medical care provider and (c) Uses an air ambulance aircraft, either fixed wing or helicopter.
Airways Navigation Facilities	Airways navigation facilities are those ICAO Standard Navigation Aids (VOR, VOR/DME, and/or NDB) which are used to establish the en route airway structure within the sovereign airspace of ICAO member states. These facilities are also used to establish the degree of navigation accuracy required for air traffic control and Class I navigation within that airspace.
Authority	A power that a person is vested with.
Auto Flight Guidance System (AFGS)	Aircraft systems, such as an autopilot, auto throttles, displays, and controls, that are interconnected in such a manner so as to allow the crew to automatically control the aircraft's lateral and vertical flightpath and speed. A flight management system is sometimes associated with an AFGS.
Automatic Dependent Surveillance (ADS)	A function for use by air traffic services in which the ADS equipment in the aircraft automatically transmits data derived from on-board navigation systems via a datalink. As a minimum, the data include aircraft identification and three-dimensional position. ADS is sometimes referred to as ADS-A or ADS-Contract (e.g., a communications contract between the aircraft communications/surveillance system and an air traffic facility or service provider only).
Automatic Dependent Surveillance-Broadcast (ADS-B)	ADS-B is a function on an aircraft or surface vehicle operating within the surface movement area that periodically broadcasts via datalink its state vector (horizontal and vertical position, horizontal and vertical velocity) and other information. ADS-B is Automatic in that it requires no external stimulus to elicit a transmission.

Term or Terms	Definition
	ADS-B is Dependent because it relies on on-board navigation sources. ADS-B Surveillance information is provided, via data link, to any users (either aircraft or ground-based) within range of the Broadcast signal.
Available Landing Distance (ALD)	ALD is that portion of a runway available for landing and roll-out for aircraft cleared for land and hold short operations (LAHSO). This distance is measured from the landing threshold to the hold-short point.
Category I Instrument Approach	A Category I instrument approach is any authorized precision or nonprecision instrument approach which is conducted with a minimum height for IFR flight not less than 200 feet (60 meters) above the touchdown zone and a minimum visibility/RVV not less than 1/2 statute mile or RVR 1800 (for helicopters, 1/4 statute mile or RVR 1600).
Certificate Holder	In these operations specifications the term "certificate holder" shall mean the holder of the certificate described in Part A paragraph A001 and any of its officers, employees, or agents used in the conduct of operations under these operations specifications.
Class I Navigation	Class I navigation is any en route flight operation or portion of an operation that is conducted entirely within the designated Operational Service Volumes (or ICAO equivalents) of ICAO standard airway navigation facilities (VOR, VOR/DME, NDB). Class I navigation also includes en route flight operations over routes designated with an "MEA GAP" (or ICAO equivalent). En route flight operations conducted within these areas are defined as "Class I navigation" operations irrespective of the navigation means used. Class I navigation includes operations within these areas using pilotage or any other means of navigation which does not rely on the use of VOR, VOR/DME, or NDB.
Class II Navigation	Class II navigation is any en route flight operation which is not defined as Class I navigation. Class II navigation is any en route flight operation or portion of an en route operation (irrespective of the means of navigation) which takes place outside (beyond) the designated Operational Service Volume (or ICAO equivalents) of ICAO standard airway navigation facilities (VOR, VOR/DME, NDB). However, Class II navigation does not include en route flight operations over routes designated with an "MEA GAP" (or ICAO equivalent).
Cockpit Display of Traffic Information (CDTI)	A CDTI is a generic display that provides a flightcrew with surveillance information about other aircraft including their position. Traffic information for a CDTI may be obtained from one or multiple sources (including ADS-B, TCAS, and traffic information services) to provide improved awareness of proximate aircraft and as an aid to visual acquisition as part of the normal see and avoid operations both in the air and on the ground.
Decision Altitude (Height)	DA(H) is a specified minimum altitude in an instrument approach procedure by which a missed approach must be initiated if the required visual reference to continue the approach has not been established. The 'altitude' value is typically measured by a barometric altimeter; the 'height' value (H) is typically a radio altitude equivalent height above the touchdown zone (HAT) used only for advisory reference and does not necessarily reflect actual height above underlying terrain.

Term or Terms	Definition
	[This definition is consistent with both current U.S. operator usage and ICAO international agreements.]
Dual-Certificated-Noise Compliance	For purposes of noise compliance rules, dual-certificated airplanes are those that are certificated to operate in either a Stage 2 or Stage 3 configuration. The only airplanes dual certificated by the FAA were certain Boeing 747's, -300 series or earlier. For noise compliance purposes, these airplanes are considered Stage 2 unless the operator gets a supplemental type certificate to make the airplane Stage 3 only, or unless the operator voluntarily limits the operation to Stage 3 only.
Duty	A task or function a person must do.
Fault Detection and Exclusion (FDE)	FDE technology allows onboard GPS equipment to automatically detect a satellite failure that effects navigation and to exclude that satellite from the navigation solution.
Flight Management Systems (FMS)	An integrated system used by flightcrews for flight planning, navigation, performance management, aircraft guidance, and flight progress monitoring.
Free Flight	A safe and efficient flight operating capability under instrument flight rules in which the operators have the freedom to select a path and speed in real time. Air traffic restrictions are imposed only to ensure separation, to preclude exceeding airport capacity, to prevent unauthorized flight through special use airspace, and to ensure safety of flight. Restrictions are limited in extent and duration to correct the identified problem. Any activity that removes restrictions represents a move toward Free Flight.
Global Position System (GPS) Landing System (GLS)	GLS is a differential GPS-based landing system providing both vertical and lateral position fixing capability. The term GLS may also be applied to any GNSS-based differentially corrected landing system.
Helicopter Emergency Medical Service	Helicopter emergency medical service (HEMS) is (a) Air transportation by helicopter of a person with a health condition that requires medical personnel as determined by a health care provider; or (b) Holding out to the public as willing to provide air transportation by helicopter to a person with a health condition that requires medical personnel as determined by a health care provider including, but not limited to, advertisement, solicitation, association with a hospital or medical care provider. (c) Helicopter emergency medical evacuation service (HEMES)
ILS-PRM	The simultaneous close parallel ILS approaches are enabled through the implementation of special precision runway monitoring (PRM) equipment operated by Air Traffic Control at certain airfields for some runways. These approaches are included in 14 CFR Part 97 as "ILS PRM." This operation comprises two instrument landing systems (ILS), each aligned with its respective runway and parallel to each other. ILS/PRM permits simultaneous instrument approach operations to parallel runways spaced less than 4,300 feet apart, but no less than 3,000 feet.

Term or Terms	Definition
Imported Airplane-Noise Compliance	For purposes of the noise compliance rules, an imported airplane is a Stage 2 airplane of 75,000 pounds or more that was purchased by a U.S. person from a non-U.S. owner on or after November 5, 1990. [Under the non addition rule (see 14 CFR § 91.855), an imported airplane may not be operated to or from any airport in the contiguous United States. Such airplanes may be owned and registered by U.S. persons but are limited to operation outside the contiguous United States.]
JAA JAR-OPS-1	Joint Aviation Authorities (JAA) Joint Aviation Requirements (JAR) operational agreements (OPS). The European JAA adopted common operational guidance for all Member States in order to harmonize the rules within those States. The JAR-OPS-1, is part 1 of the operational agreement and comprises the operational requirements applicable to commercial air transportation fixed wing aircraft.
LDA/PRM (SOIA)	This operation comprises one ILS and one localizer type directional aid (LDA) with glide slope. The ILS is aligned with its runway, but the LDA serving the second runway is offset (no more than 3 degrees) from a parallel track. This offset permits simultaneous instrument approach operations to parallel runways spaced less than 3,000 feet apart, but no less than 750 feet. Because of the offset, this operation is also known as a simultaneous offset instrument approach (SOIA).
Lease	A lease is where an aircraft owner transfers possession and use of a specific aircraft to a lessee for a fixed period. In a lease, as opposed to other types of custody/use agreements, the lessee has the right to possess and use the aircraft even if the aircraft owner needs the aircraft returned, assuming the lessee has made timely payments and is properly maintaining the aircraft. In accordance with Section 119.53(b), the certificate holder may not wet lease from or enter into any wet leasing arrangement with any person not authorized by the FAA to engage in common carriage operations under 14 CFR Parts 121 or 135 (as appropriate), whereby that other person provides an aircraft and at least one crewmember to the certificate holder.
Life Vest, Non-Quick-Donning	A non-quick-donning life vest is one which must be removed from its container, placed over the wearer's head, and/or requires additional steps beyond inflation to make it ready to use for its intended purpose.
Life Vest, Quick-Donning	A quick-donning life vest is fastened around a person in a manner which requires the wearer only to pull on a single tab and lift the life vest over his/her head. At this point the life vest needs only to be inflated to be ready to use for its intended purpose.
Local Flying Area	An area designated by the operator in which air ambulance services will be conducted. Each local flying area should be defined in a manner acceptable to the operator, the local Flight Standards District Office, and the Principal Operations Inspector, taking into account the operating environment, the geographic terrain features, and the capabilities of the aircraft.
Major Contract Training	Any flight training, flight testing, or flight checking leading to and maintaining certification and qualification of air carrier flightcrew members in accordance with the requirements (maneuvers and procedures) explicitly stated in 14 CFR Parts 61,

Term or Terms	Definition
	121, or 135; or in SFAR 58 Advanced Qualification Program (AQP), as applicable.
Medical Crewmember	A person with medical training who is assigned to provide medical care and other crewmember duties related to the aviation operation during flight.
Minimum Descent Altitude (Height)	MDA(H) is the lowest altitude in an instrument approach procedure to which a descent is authorized on final approach or during circle-to-land maneuvering. The 'altitude' value is typically measured by a barometric altimeter; the 'height' value (H) is typically a radio altitude equivalent height above the touchdown zone (HAT) or height above airport (HAA) published elevation. The (H) is used only for advisory reference and does not necessarily reflect actual height above underlying terrain. [This definition is consistent with both current U.S. operator usage and ICAO international agreements.]
Operational Service Volume	The Operational Service Volume is that volume of airspace surrounding a NAVAID which is available for operational use and within which a signal of usable strength exists and where that signal is not operationally limited by co-channel interference. Operational Service Volume includes all of the following: (1) The officially designated Standard Service Volume excluding any portion of the Standard Service Volume which has been restricted. (2) The Expanded Service Volume. (3) Within the United States, any published instrument flight procedure (victor or jet airway, SID, STAR, SIAP, or instrument departure). (4) Outside the United States, any designated signal coverage or published instrument flight procedure equivalent to U.S. standards.
Outsourced Training	Any training, testing, or checking activity which an air carrier certificate holder provides by way of a contract arrangement with another party.
Parabolic Flight Operations	Parabolic flight operations are aerobatic maneuvers in which the aircraft is intentionally pitched in excess of 30 degrees above and 30 degrees below the horizon in a repeated fashion for the specific purpose of exposing the participants to reduced or zero gravity conditions.
Planned Redispatch or Re-Release En Route	The term "planned redispatch or re-release en route" means any flag operation (or any supplemental operation that includes a departure or arrival point outside the 48 contiguous United States and the District of Columbia) that is planned before takeoff to be redispatched or re-released in flight in accordance with 14 CFR Section 121.631(c) to a destination airport other than the destination airport specified in the original dispatch or release.
Polar Area (North)	The north polar area of operations is that area that lies north of latitude N 78° 00'.
Qualified Local Observer	A person who provides weather, landing area, and other information as required by the operator, and has been trained by the operator under a training program approved by the Principal Operations Inspector.
Raw Terrain	Raw terrain is devoid of any person, structure, vehicle or vessel.

Term or Terms	Definition
Receiver Autonomous Integrity Monitoring (RAIM)	RAIM is a function that considers the availability of satisfactory signal integrity broadcasted from the particular GPS satellites used during a given flight. Onboard GPS navigators accomplish this automatically as the aircraft proceeds along its route. When insufficient signal integrity is detected an alarm is provided to the flightcrew. Using the predictive RAIM software flightcrews and dispatchers know in advance whether or not suitable GPS navigation will be available throughout the flight. This predictive information may also be determined during flight planning by contacting an FAA Flight Service Station.
Reliable Fix	A "reliable fix" means station passage of a VOR, VORTAC, or NDB. A reliable fix also includes a VOR/DME fix, an NDB/DME fix, a VOR intersection, an NDB intersection, and a VOR/NDB intersection provided course guidance is available from one of the facilities and the fix lies within the designated operational service volumes of both facilities which define the fix.
Required Navigation Performance (RNP)	A statement of navigation performance necessary for operations within a defined airspace.
Required Navigation Performance (RNP) Time Limit	Applies to aircraft equipped with INS or IRU systems where those systems provide the means of navigation to navigate to the degree of accuracy required by ATC. The FAA-approved time in hours--after the system is placed in navigation mode or is updated en route--that the specific INS or IRU make/model can meet a specific RNP type on a 95% probability basis. It is used to establish the area of operations or routes on which the aircraft/navigation system is qualified to operate.
Required Navigation Performance (RNP) Type	A value typically expressed as a distance in nautical miles from the intended position within which an aircraft would be for at least 95 percent of the total flying time. For example, RNP-4 represents a lateral and longitudinal navigation accuracy of 4 nm on a 95 percent basis. Note: Applications of RNP to terminal area and other operations may also include a vertical component.
Responsibility	Something a person is accountable for.
Runway	In these operations specifications the term "runway" in the case of land airports, water airports and heliports, and helipads shall mean that portion of the surface intended for the takeoff and landing of land airplanes, seaplanes, or rotorcraft, as appropriate.
Simultaneous offset instrument approach (SOIA)	See definition for LDA/PRM.
Sustainable Transfer	A sustainable transfer is a transfer of operational control, without any impediment, by a contract, agreement, lease, or other written or verbal arrangement between the owner, lessor, or other entity, and any other entity, that restricts any person or entity from transferring operational control to the certificate holder. Examples of such impediments are lease, mortgage, insurance, management agreements, and other agreements which limit the use of the aircraft to a particular party or purpose other than the certificate holder and its authorized kinds of operation.
VFR Station-	VFR station-referenced Class I navigation is any operation conducted within the

Term or Terms	Definition
Referenced Class I Navigation	operational service volumes of ICAO standard navigation aids under visual flight rules (VFR) which uses nonvisual navigation aids (stations), such as VOR, VOR/DME, or NDB as the primary navigation reference. VFR station-referenced Class I navigation includes Class I navigation conducted on-airways and off-airway routings predicated on airways navigation facilities. These operations also include Class I navigation using an area navigation system which is certificated for IFR flights over the routes being flown.
Wide Area Augmentation System (WAAS)	WAAS has been developed to improve the accuracy, integrity, availability, and reliability of GPS signals. WAAS utilizes a fixed localized ground station to calculate GPS integrity and correction data, then broadcasts this information through the GPS satellites to GPS/WAAS users along with ranging signals. It is a safety critical system consisting of a ground network of reference and integrity monitor data processing sites which assess current GPS performance, as well as a space segment that broadcasts that assessment to GNSS users to support IFR navigation.

1. Issued by the Federal Aviation Administration.
2. These Operations Specifications are approved by direction of the Administrator.

[redacted]

Kay, Martin F. Principal Operations Inspector WP19

3. Date Approval is effective: 2/22/07 Amendment Number: 5
4. I hereby accept and receive the Operations Specifications in this paragraph.

[redacted]

Barton, Kurt Director of Operations Date: 2/22/07

A003. **Aircraft Authorization**

HQ Control: 09/11/02
HQ Revision: 02g

The certificate holder is authorized to conduct operations under the provisions of Title 14 CFR Part 135 using aircraft with the approved configuration and operations described in the following table:

M/M/S	Type Section 119	Operational Use Of Aircraft	Operation Configuration	Class/Category Operation	En Route	Condition of Flight
AS-350-B2	119.25(b) - On Demand HEL	On Demand (135)	PAX and Cargo	HEL	VFR	Day/Night
AS-350-BA	119.25(b) - On Demand HEL	On Demand (135)	PAX and Cargo	HEL	VFR	Day/Night
EC-130-B4	119.25(b) - On Demand HEL	On Demand (135)	PAX and Cargo	HEL	VFR	Day/Night

1. Issued by the Federal Aviation Administration.
2. Support information reference:
3. These Operations Specifications are approved by direction of the Administrator.

[redacted]

Bierman, Charlie W. Principal Maintenance Inspector WP19

4. Date Approval is effective: 11/29/07 Amendment Number: 10
5. I hereby accept and receive the Operations Specifications in this paragraph.

[redacted]

Barton, Kurt Director of Operations Date: 11/29/07

A004. Summary of Special Authorizations and Limitations HQ Control: 8/3/2001 HQ Revision: 000

a. The certificate holder, in accordance with the reference paragraphs, is authorized to:

	Reference Paragraphs
Use only actual passenger and baggage weights (no combinations of average and actual weights) for all its aircraft	A096
Conduct operations in the Grand Canyon National Park Special Flight Rules Area (GCNP-SFRA).	B049
Conduct commercial air tour operations over certain national park(s) and tribal lands within or abutting those national park(s).	B057
Use an approved minimum equipment list (MEL).	D095
Use aircraft with nine or less passenger seats with the additional maintenance requirements of 14 CFR Section 135.421 applicable for rotorcraft operations.	D102
Use aircraft with nine or less passenger seats with the additional maintenance requirements of 14 CFR Section 135.421 applicable for emergency equipment.	D104

b. The certificate holder is *not authorized* and *shall not*:

Conduct operations under certain exemptions and/or deviations.	A005
Use an approved carry-on baggage program.	A011
Conduct extended overwater turbojet operations without required emergency equipment.	A013
Conduct special en route IFR operations in Class G airspace.	A014
Use an autopilot in lieu of a second-in-command.	A015
Use an approved security program in helicopter operations.	A017
Conduct scheduled passenger helicopter operations.	A018
Use automotive gasoline as aircraft fuel.	A019
Conduct Part 135 airplane operations without instrument-rated pilots.	A020
Conduct helicopter emergency medical services/air ambulance operations in accordance with 14 CFR Part 135.	A021
Use an approved exit row seat program.	A022
Determine ground icing conditions for the purpose of flight [using an approved deicing/anti-icing procedure IAW CFR Section 135.227(b)(3)].	A023

Conduct airplane air ambulance operations under 14 CFR Part 135.	A024
Use an approved electronic recordkeeping system and/or an electronic flight bag.	A025
Conduct Land and Hold Short Operations (LAHSO) at designated airports and specified runway configurations as identified by Air Traffic Services in Notice 7110.118, Appendix 1.	A027
Conduct aircraft wet lease arrangements.	A028
Use an aircraft interchange agreement under 14 CFR Section 119.49.	A029
Make arrangements with training centers and other organizations for certificate holder training in accordance with 14 CFR Section 135.324.	A031
Adopt flight crewmember flight time limitations rules to establish flight attendant duty & flight time limitations & rest restrictions.	A032
Conduct certain CFR Part 135 operations in accordance with flight and rest time limitations under 14 CFR Sections 135.261 through 135.273.	A033
Conduct operations using an approved Advanced Qualification Program in accordance with SFAR 58.	A034
Conduct commuter and on-demand operations as a basic Part 135 operator IAW the deviation provisions of Section 135.21(a), and 135.341(a).	A037
Conduct on-demand operations as a basic 14 CFR Part 135 operator IAW the deviation provisons of Sections 135.21(a), 119.69(b), and 135.341(a)	A038
Conduct single pilot-in-command operations as a Part 135 operator IAW the deviation provisions of Section 135.21(a), 119.69(b), and 135.341(a).	A039
Conduct operations as a single pilot operator.	A040
Conduct a pretakeoff contamination check during ground icing conditions for Part 135 operators.	A041
Conduct Part 135 aircraft operations without a deicing/anti-icing procedure.	A042
Conduct Single Engine IFR (SEIFR) Passenger-Carrying Operations Under CFR Part 135.	A046
Conduct helicopter night vision goggle operations.	A050
Use ADS-B for certain operational applications.	A052
Accept, handle, and carry materials regulated as Hazardous Materials (HazMat).	A055
Conduct en route controller-pilot data link communications (CPDLC).	A056

Conduct "eligible on-demand operations" as defined in and in accordance with 14 CFR Section 135.4.	A057
Use any combination of actual, standard average (or segmented), or survey-derived average weights in its small cabin aircraft passenger and baggage weight program.	A097
Use any combination of actual, standard average (or segmented), or survey-derived average weights for its medium cabin aircraft.	A098
Use any combination of actual, standard average (or segmented), or survey-derived average weights for its large cabin aircraft.	A099
Allow persons eligible under 14 CFR Section 121.547(a)(3) access to the flightdeck using the CASS program and/or the FDAR program IAW the limitations and provisions of A348.	A348
Suspend its liability insurance due to seasonal operations.	A501
Conduct flight operations within the territory of Iraq in accordance with the permitted operations requirements of SFAR-77.	A520
Conduct operations using approved driftdown or fuel dumping procedures.	B029
Conduct IFR en route RNAV operations in the State of Alaska using TSO C145a/C146a GPS/WAAS RNAV systems as the only means of IFR navigation IAW SFAR 97.	B030
Conduct IFR en route operations.	B032
Conduct Class I navigation using an area navigation system.	B034
Conduct Class I navigation in the U.S. Class A airspace using an area or long-range navigation system.	B035
Conduct Class II navigation using long-range navigation systems.	B036
Conduct operations in Central East Pacific (CEP) airspace.	B037
Conduct operations in North Pacific (NOPAC) airspace.	B038
Conduct operations in North Atlantic minimum navigation performance specifications (NAT/MNPS) airspace.	B039
Conduct operations in areas of magnetic unreliability.	B040
Conduct extended overwater operations using a single long-range communication system (S-LRCS).	B045
Conduct operations in reduced vertical separation minimum (RVSM) airspace.	B046
Conduct Class II navigation with a flight navigator.	B047

Conduct air tour operations below an altitude of 1,500 feet AGL in the State of Hawaii.	B048
Conduct Class II navigation using single long-range navigation system (S-LRNS).	B054
Conduct operations in Canadian Minimum Navigation Performance Airspace (MNPS).	B059
Use a destination airport analysis program.	C049
Conduct terminal instrument operations using specific procedures and landing minima for airplanes.	C051
Conduct operations using basic instrument approach procedures for airplanes.	C052
Conduct straight-in Category I approach procedures other than ILS, MLS, or GLS with specific IFR landing minimums for airplanes at all airports.	C053
Conduct IFR approach procedures using special IFR landing minimums for airplanes.	C054
Derive alternate airport weather minimums from the standard table for airplanes.	C055
Use IFR Takeoff Minimums, 14 CFR Part 135 Airplane Operations - All Airports.	C057
Conduct foreign terminal instrument procedures with special restrictions for airplanes.	C058
Conduct airplane Category II instrument approach and landing operations.	C059
Conduct airplane Category III instrument approach and landing operations.	C060
Use flight control guidance systems for airplane automatic landing operations other than Categories II and III.	C061
Use manually flown flight control guidance systems certified for airplane landing operations.	C062
Conduct IFR area navigation (RNAV) Instrument Departure Procedures (DPs) and Standard Terminal Arrivals (STARs) published in accordance with 14 CFR Part 97.	C063
Conduct nonscheduled passenger and/or all-cargo, special terminal area IFR airplane operations in Class G airspace and at airports without an operating control tower.	C064
Use powerplant reversing systems for rearward taxi in specific airplane operations.	C065
Operate airplanes with special airport authorizations, provisions, and limitations.	C067
Conduct noise abatement departure profile operations with its subsonic turbojet-powered airplanes over 75,000 pounds gross takeoff weight.	C068
Conduct scheduled operations at authorized airports.	C070
Engage the autopilot after takeoff and initial climb at an altitude lower than specified for en route operations by Title 14 CFR Section 135.93 (a).	C071

Conduct engine-out departure procedures with approved 10-minute takeoff thrust time limits.	C072
Conduct IFR airplane approach procedures using vertical navigation (VNAV) utilizing a published MDA as a DA(H).	C073
Conduct airplane Category I, ILS, MLS, or GLS approach procedures with specific IFR landing minimums.	C074
Conduct airplane IFR circle-to-land approach maneuvers.	C075
Conduct airplane contact approaches using IFR Category I landing minimums.	C076
Conduct certain Part 135 turbojet operations in the terminal area using visual flight rules.	C077
Conduct takeoffs in weather minimums below Category I takeoff minimums for 14 CFR Part 135 airplane operations.	C079
Conduct scheduled passenger, special terminal area IFR airplane operations in Class G airspace and at airports without an operating control tower.	C080
Conduct IFR operations using special non CFR Part 97 instrument approach or departure procedures.	C081
To conduct certain Category II airplane operations at specifically approved facilities.	C359
Conduct continuous airworthiness maintenance programs.	D072
Use an approved aircraft inspection program (AAIP).	D073
Use a reliability program for the entire aircraft.	D074
Use a reliability program for airframe, powerplant, systems, or selected items.	D075
Use short-term escalation.	D076
Contractually arrange with other certificated operators for maintenance of the entire aircraft.	D077
Use the provisions of contractual agreements limited to specific maintenance functions.	D078
Participate in a reliability program under a contractual agreement.	D079
Use leased maintenance program authorization: U.S.-registered aircraft.	D080
Use specific aircraft for which prorated times have been established.	D082
Use short-term escalation authorization for borrowed parts that are subject to overhaul requirements.	D083
Conduct ferry flights under special flight permits with continuing authorization.	D084

Use a maintenance program for leased foreign-registered aircraft.	D087
Use maintenance time limitations for operators with a partial reliability program.	D088
Use maintenance time limitations for operators without a reliability program.	D089
Use coordinating agencies for suppliers evaluation (CASE).	D090
Use an approved maintenance program for listed airplanes used in operations in designated RVSM airspace.	D092
Use an approved maintenance program for helicopter night vision goggle operations.	D093
Use aircraft with nine or less passenger seats with the additional maintenance requirements of 14 CFR Section 135.421 applicable for aircraft engine, propeller, and propeller control (governor).	D101
Use aircraft with nine or less passenger seats with the additional maintenance requirements of 14 CFR Section 135.421 applicable for single engine IFR.	D103
Suspend its liability insurance for specific aircraft in long-term storage or maintenance.	D106
Use weight and balance control procedures.	E096
Operate transport category large helicopters in accordance with performance data contained in the approved Rotorcraft Flight Manual and special operational conditions and limitations.	H100
Conduct terminal flight operations under instrument flight rules - helicopter.	H101
Conduct operations using basic instrument approach procedures for helicopters.	H102
Conduct Category I IFR landings other than airborne radar approaches - helicopter.	H103
Conduct IFR helicopter en route descent (HEDA) procedures.	H104
Use alternate airport IFR weather minimums - helicopter.	H105
Conduct helicopter operations using standard takeoff minimums under Part 135.	H106
Use special restrictions for foreign terminal instrument procedures - helicopter.	H107
Conduct helicopter Category II operations.	H108
Conduct helicopter Category III operations.	H109
Use flight control guidance systems for aircraft automatic landing operations - helicopter.	H110
Use manually flown flight control guidance systems certified for aircraft landing operations - helicopter.	H111

Conduct helicopter approach operations using an area navigation system.	H112
Conduct nonscheduled passenger and all-cargo (scheduled and nonscheduled) special terminal area IFR rotorcraft operations in Class G airspace.	H113
Use special airport authorizations, limitations, and provisions - helicopter.	H114
Conduct helicopter operations using lower than standard takeoff minimums under Part 135.	H116
Conduct helicopter Category I, ILS, MLS, or GLS approach procedures with specific IFR landing minimums.	H117
Conduct helicopter circle-to-land maneuvers using IFR Category I landing minimums.	H118
Conduct helicopter contact approaches using IFR Category I landing minimums.	H119
Conduct operations in authorized airports for scheduled operations - Helicopter.	H120
Conduct scheduled passenger terminal area IFR rotorcraft operations in Class G airspace.	H121
Conduct special non CFR Part 97 instrument approach or departure rotorcraft operations specified for the following airports.	H122

1. Issued by the Federal Aviation Administration.
2. These Operations Specifications are approved by direction of the Administrator.

[redacted]

Kay, Martin F. Principal Operations Inspector WP19

3. Date Approval is effective: 3/14/06 Amendment Number: 4
4. I hereby accept and receive the Operations Specifications in this paragraph.

[redacted]

Barton, Kurt Director of Operations Date: 3/14/06

A006 . Management Personnel

HQ Control: 10/19/2009
HQ Revision: 030

The certificate holder is authorized the following management positions:

a. The certificate holder uses the following named personnel in the 14 CFR Part 135 management positions listed below. All management personnel listed in this operations specification must be direct employees of the certificate holder.

Table 1- Authorized Management Positions and Personnel

Part 119 Position Title	Name	Company Equivalent Position Title
Director of Operations	Barton, Kurt	Director of Operations
Chief Pilot	Boyd, Burl	Chief Pilot
Director of Maintenance	Reynolds, Kyle James	Director of Maintenance

1. Issued by the Federal Aviation Administration .
2. Support information reference:
3. These Operations Specifications are approved by direction of the Administrator.

2010.04.26 17:19:04 Central Daylight Time
Location: WebOPSS
Digitally signed by Alan M McKinney,
Principal Maintenance Inspector (WP19)

4. Date Approval is effective: 04/26/2010 Amendment Number: 9
5. I hereby accept and receive the Operations Specifications in this paragraph.

Barton, Kurt, Director of Operations

[redacted]

Date: 04/26/2010

A007 . Other Designated Persons

HQ Control: 12/19/2006
HQ Revision: 020

a. The following person is designated as the certificate holder's Agent for Service:

Pietropaulo, Lawrence J.
5596 Haven Street
Las vegas, Nevada 89119
United States

b. The following personnel are designated to officially apply for and receive operations specifications for the certificate holder as indicated below.

Table 1 – Personnel Designated to Apply for and Receive Operations Specifications

Title	Name	Parts Authorized
Cheif Executive Officer	Pietropaulo, Lawrence J.	A,B,D
Chief Pilot	Boyd, Burl	A,B,D
Chief Executive Officer	Pietropaulo, Lawrence J.	A,B,D
Director of Operations	Barton, Kurt	A,B,D
Director of Maintenance	Reynolds, Kyle James	A,D

c. The following personnel or company email boxes are designated to receive Safety Alert for Operators (SAFO) and/or Information for Operators (INFO) messages for the certificate holder as indicated below. A receipt of the information by an air carrier or person is not required.

Table 2 – Personnel Designated to Receive SAFOs and/or INFOs

Name	Email Address	Telephone No.	Type of Information to Receive
Kyle J Reynolds	kyle@sundancehelicopters.com	[redacted]	AW

A008 . Operational Control

HQ Control: 10/19/2009
HQ Revision: 030

a. The system described or referenced below shall be used by the certificate holder that conducts operations under 14 CFR Part 135 to provide operational control for its flight operations. The essential elements of operational control described in subparagraph d. below must be included or described in that system.

As in Section (d)(1) of this operations specifications, "Elements of Operational Control" for "Crewmember Requirements" is located within the GOM, Preface, sections 4.2.11 4.252 and 4.28., section 3.10.2, section 5.4 and the Pilot Status Board.
As in Section (d)(2) of this operations specifications, "Elements of Operational Control" for "Aircraft Requirements" is located within GOM, Preface, Aircraft Leases, the Aircraft Status Board, and section 4.2.14
As in Section (d)(3) of this operations specifications, "Elements of Operational Control" for "Exclusive Aircraft Use Requirements" is located within GOM, Preface, the Aircraft Leases, the Aircraft Status Board and section 4.2.15.
As in Section (d)(4) of this operations specifications, "Elements of Operational Control" for "Use of Other Business Name" is located within GOM, Preface, and section 4.2.12.
As in Section (d)(5) of this operations specifications, "Elements of Operational Control" for "Aircraft Operation Agreements and Other Arrangements" is located within GOM, Preface, within the agreed terms of each aircraft lease, and section 4.2.13.
As in Section (d)(6) of this operations specifications, "Elements of Operational Control" for "Management Personnel and Persons Authorized to Exercise Operational Control" is located within GOM, Preface, and 4.2.11.
As in Section (d)(7) of this operations specifications, "Elements of Operational Control" for "Operational Control Information Requirements" is located within GOM, Preface, and Section 6 in its entirety.

b. Certificate Holder Responsibilities:

(1) The certificate holder retains all responsibility for the operational control of aircraft operations, and thus the safety of each flight conducted under this certificate and operations specification, including the actions or inactions of all direct employees and agents of the certificate holder.

(2) This responsibility is not transferable to any other person or entity.

(3) The certificate holder's responsibility for operational control supersedes any agreement, contract, understanding or arrangement, either oral or written, expressed or implied, between any persons or entities.

c. The certificate holder may not engage in any of the following practices and shall not:

(1) Franchise or share the certificate holder's authority for the conduct of operations under its

certificate and operations specifications to or with another person or entity.

(2) Use a "Doing Business As" (DBA) name in any way that represents an entity that does not hold an air carrier or operating certificate and operations specifications as having such a certificate and operations specifications.

(3) Engage in a Wet Lease Contrary to 14 CFR Section 119.53. In accordance with Section 119.53(b), the certificate holder may not wet lease from or enter into any wet leasing arrangement with any person not authorized by the FAA to engage in common carriage operations under 14 CFR Parts 121 or 135 (as appropriate), whereby that other person provides an aircraft and at least one crewmember to the certificate holder. A lease, or other business arrangement with a lease, is considered a wet lease if any of the following conditions exists:

(a) The certificate holder and the aircraft owner/lessor agree that the certificate holder is required to use the aircraft owner's/lessor's pilot in Part 135 operations,

(b) The aircraft owner/lessor is obligated to furnish pilots to the certificate holder to operate the aircraft, or,

(c) The aircraft owner/lessor has the power to veto who the certificate holder will use to pilot the aircraft in Part 135 operations, so as to limit the certificate holder to using only the owner/lessor's pilots.

(4) Transfer, surrender, abrogate, or share operational control responsibility with any party.

(5) Engage in any arrangement with an aircraft owner, lessor or any other person or entity, such as an aircraft management entity, which allows the use of an aircraft for operations under these operations specifications without a complete, effective and sustainable transfer of operational control to the certificate holder for all Part 135 operations conducted under these operations specifications.

d. Elements of Operational Control. The following items are essential elements of operational control and are required to be components of the operational control system, used by the certificate holder, and as described or referenced in subparagraph a. above:

(1) Crewmember Requirements. The certificate holder may not conduct any operation under Part 135, unless each of the certificate holder's crewmembers is:

(a) The certificate holder's direct employee or agent during every aspect of the Part 135 operations, including those aspects related to any pre-flight and post-flight duties. The certificate holder is accountable for the actions and inactions of these persons during all its aircraft operations.

(b) Currently trained and/or tested, qualified, and holds the appropriate airman and medical certificates to conduct flights for the certificate holder under Part 135, and is otherwise qualified to accept the specific flight assignment, considering flight and rest requirements, airspace qualification and the type of operation intended in the assignment. Each pilot must be specifically listed by name and airman certificate number on a list of pilots maintained by the certificate holder at its main base of operations or listed in operations specification A039 or A040, if applicable. This information must be available for inspection by the Administrator as specified in Section 135.63.

(2) Aircraft Requirements. The certificate holder may not conduct any operation under Part 135 unless each aircraft used in its Part 135 operations is:

(a) Owned by the certificate holder and remains, without interruption in the certificate holder's legal and actual possession (directly or through the certificate holder's employees and agents) during all of its Part 135 flights; or

(b) Leased by the certificate holder or otherwise in the legal custody of the certificate holder and remains in the certificate holder's exclusive possession or custody during all of its Part 135 flights.

(c) For each aircraft which the certificate holder uses under these operations specifications, the aircraft owner or other lessee of the aircraft may operate the aircraft under Part 91, under the control and responsibility (including potential liability for an unsafe operation) of the owner or other lessee, as long as the following condition is met:

- The certificate holder ensures that the maintenance of the aircraft continues to adhere to the certificate holder's maintenance program at all times or,

- When the aircraft is returned to the certificate holder but before the aircraft is operated under Part 135 again by the certificate holder, that aircraft undergoes an appropriate airworthiness conformity validation check.

(3) Exclusive Aircraft Use Requirements for Part 135 Operations. At least one aircraft that meets the requirements for at least one kind of operation authorized in the certificate holder's operations specifications must remain in the certificate holder's exclusive legal possession and actual possession (directly or through the certificate holder's employees and agents) as specified in Section 135.25. This aircraft cannot be listed on any other Part 119 certificate holder's operations specification during the term of the exclusive use lease.

(4) Use of Other Business Name(s) (DBAs):

(a) The certificate holder may not allow or create the circumstances that would enable any other entity to conduct a flight for compensation or hire under Parts 119, 121 or 135 as if that entity were the certificate holder.

(b) The certificate holder shall not operate an aircraft under Part 135 under the name or fictitious name of any other person or entity, unless authorized in operations specification A001 of these operations specifications. Such authorization does not authorize any person or entity, other than the certificate holder, to conduct operations under the certificate holder's certificate and operations specifications.

(c) The certificate holder may not allow the use of a fictitious name to obscure the certificate holder's responsibility and accountability to exercise operational control over its flight operations.

(5) Aircraft Operation Agreements and Other Arrangements.

(a) In accordance with Section 119.53(b), the certificate holder may not wet lease from or enter into any wet leasing arrangement with any person not authorized by the FAA to engage in common carriage operation under Parts 121 or 135, whereby that other person provides an aircraft and at least one crewmember to the certificate holder. This requirement does not prohibit the separate use of a crewmember by the certificate holder when that crewmember is also employed by the aircraft's owner or lessor.

(b) Any agreement or arrangement between the certificate holder and an aircraft owner must fully explain how the certificate holder oversees and ensures that only airworthy aircraft are used in its Part 135 operations.

(c) The certificate holder's operational control system must include a system of ensuring that it has complete, effective and sustainable operational control over each aircraft operated under these operations specifications, and that no surrender or loss of operational control exists.

(d) The certificate holder may not operate any aircraft in Part 135 operations, which is subject to an agreement between the certificate holder and the aircraft owner or any lessee of the aircraft, if that agreement shifts liability and accountability for the safety of the certificate holder's Part 135 flight operations from the certificate holder to the aircraft owner or other parties.

(6) Management Personnel and Persons Authorized to Exercise Operational Control:

(a) Prior to conducting a Part 135 flight or series of flights, at least one management person listed in operations specification A006, Management Personnel, of these operations specifications or a management person designee who is a direct employee of the certificate holder, other than a pilot assigned to the specific flight or series of flight, must determine and have sufficient knowledge of the following:

(i) Whether each assigned crewmember is qualified and eligible to serve as a required crewmember in the aircraft and type of operation to which the crewmember is assigned (see subparagraph d.(1)(b) above) and

(ii) Whether the aircraft assigned for use is listed in operations specification D085, and is airworthy under the certificate holder's FAA-approved maintenance, inspection, or airworthiness program, as appropriate.

(b) Prior to conducting a Part 135 flight or series of flights, at least the pilot assigned in accordance with subparagraph d.(6)(a)(i) above must determine and have sufficient knowledge of the following:

(i) Whether a Part 135 flight or series of flights can be initiated, conducted, or terminated safely and in accordance with the authorizations, limitations, and procedures approved in the certificate holder's operations specifications, general operations manual, or subparagraph a. above and the appropriate regulations.

(ii) Notwithstanding the requirements of subparagraph d.(6)(a) above, this determination and knowledge described in subparagraph d.(6)(b)(i) above may be made for the certificate holder by pilots and/or flight crewmembers assigned to a flight or series of flights, in accordance with policies, procedures, and standards prescribed by the certificate holder.

(A) Such non-management persons shall meet the requirements of Section 119.69(d), and their names, titles, and duties, responsibilities, and authorities shall be specified in the general operations manual, or described in subparagraph a. above, or

(B) Those certificate holders issued operations specification A039 or A040, the persons listed in those operations specifications must determine and have sufficient knowledge of whether a Part 135 flight or series of flights can be initiated, conducted, or terminated safely in accordance with the authorizations, limitations, and procedures approved in subparagraph a. above and in accordance with

the appropriate regulations.

(7) Operational Control Information Requirements:

(a) Prior to the certificate holder conducting any flight operation under Part 135, the certificate holder must provide information to the designated pilot in command (PIC) that indicates which flight or series of flights will be conducted under Part 135, that indicates which Part 91 flights will be conducted by the certificate holder, and that the certificate holder is accountable and responsible for the safe operations of these flights or series of flights. (For those issued operations specification A039 or A040 the pilots listed in those operations specifications are accountable and responsible for the safe operations of these flights or series of flights.)

(b) The system of operational control for Part 135 operations must ensure that each pilot is knowledgeable that the failure of a pilot to adhere to the certificate holder's directions and instructions, or compliance with directions or instructions from an aircraft owner (other than the certificate holder), or any other outside private person or private entity, that are contrary to the certificate holder's directions or instructions, while operating aircraft under these operations specifications, may be contrary to Parts 119 and/or 135, and therefore may be subject to legal enforcement action by the FAA.

(c) These requirements do not apply to the following:

(i) Air Traffic Control instructions, clearances, Notices to Airmen (NOTAMs) received from FAA or cognizant foreign Air Traffic Control authorities,

(ii) Aeronautical safety of flight information received by the pilot, and,

(iii) Operation under the emergency authority of the PIC in accordance with Section 91.3(b), and /or Section 135.19(b).

1. Issued by the Federal Aviation Administration .
2. Support information reference:
3. These Operations Specifications are approved by direction of the Administrator.

2009.12.08 10:28:46 Central Standard Time
Location: WebOPSS
Digitally signed by Martin F Kay, Principal
Operations Inspector

4. Date Approval is effective: 12/08/2009 Amendment Number: 3

5. I hereby accept and receive the Operations Specifications in this paragraph.

Barton, Kurt, Director of Operations

[redacted]

Date: 12/08/2009

A009. Airport Aeronautical Data

HQ Control 12/05/97
HQ Revision 01b

a. The system described or referenced in this paragraph is used by the certificate holder to obtain, maintain, and distribute current aeronautical data for the airports it uses.

(1) SUNDANCE HELICOPTERS, INC. WILL PROVIDE THE PILOT-IN-COMMAND THE FOLLOWING MATERIAL IN CURRENT AND APPROPRIATE FORM (REFERENCE GOM, SECTION 4 :

NATIONAL AERONAUTICAL CHARTING OFFICE (NACO), VFR SECTIONAL AND OR WORLD AERONAUTICAL CHARTS AND TERMINAL AREA CHARTS, AIRPORT/FACILITY DIRECTORY (NACO OR JEPPESEN), FLIGHT GUIDE-AIRPORT AND FREQUENCY MANUAL (AIRGUIDE PUBLICATIONS, INC.), OR EQUIVALENT PUBLICATION.

1. Issued by the Federal Aviation Administration.
2. These Operations Specifications are approved by direction of the Administrator.

[redacted]

Kay, Martin F. Principal Operations Inspector WP19

3. Date Approval is effective: 2/22/07 Amendment Number: 1
4. I hereby accept and receive the Operations Specifications in this paragraph.

[redacted]

Barton, Kurt Director of Operations Date: 2/22/07

A010. Aeronautical Weather Data

HQ Control 06/18/03
HQ Revision 02a

a. The system described or referenced in this paragraph is used by the certificate holder to obtain and disseminate aeronautical weather data for the control of flight operations.

(I) THE AERONAUTICAL WEATHER DATA IS PROVIDED BY TELEPHONE OR VHF RADIO RECEIVER FROM A FLIGHT SERVICE STATION, OR OTHER NATIONAL WEATHER SERVICE (NWS) APPROVED WEATHER SOURCE.

IF WEATHER DATA IS NOT AVAILABLE, VFR OPERATIONS ONLY, THE PILOT-IN-COMMAND MAY, IF SUCH A REPORT IS NOT AVAILABLE, USE WEATHER INFORMATION BASED ON THAT PILOT'S OWN OBSERVATIONS OR ON THOSE OF OTHER PERSONS COMPETENT TO SUPPLY APPROPRIATE OBSERVATIONS. REFERENCE GOM SECTIONS 4 AND 6.

b. The certificate holder is authorized an EWINS to obtain and disseminate aeronautical weather data for the control of flight operations. Table 1 provides the original date and last revision of the EWINS manual. If EWINS is not authorized, enter N/A in both columns of Table 1.

Table 1

Original Date of EWINS Manual	Last Revision of EWINS Manual
N/A	N/A

c. The certificate holder is authorized to obtain its aeronautical weather data for the control of flight operations using the approved qualified Internet communications providers (QICPs) listed in Table 2 (if none are authorized, enter N/A).

Table 2

Qualified Internet Communications Providers
JEPPESEN, DTC DUAT, AND CSC DUATS.

1. Issued by the Federal Aviation Administration.
2. Support information reference:
3. These Operations Specifications are approved by direction of the Administrator.

[redacted]

Kay, Martin F. Principal Operations Inspector WP19

4. Date Approval is effective: 12/3/07 Amendment Number: 4
5. I hereby accept and receive the Operations Specifications in this paragraph.

[redacted]

Barton, Kurt Director of Operations Date: 12/3/07

A096. **Actual Weight Program For All Aircraft** HQ Control: 05/27/05
HQ Revision: 010

a. The certificate holder is authorized to use only actual weights when determining the aircraft weight and balance.

(1) This includes the passenger weights, carry-on bag weights, checked bag weights, plane-side loaded bag weights, and heavy bag weights, and/or

(2) Actual weights of all passengers and bags or solicited ("asked") passenger weight plus 10 pounds and actual weight of bags.

b. If this operations specification is issued, operations specifications A097, A098 and A099 must not be issued.

c. Operations specification A011 must be issued if the certificate holder has a carry-on baggage program.

d. The following aircraft must use actual weights:

(1) All single-engine aircraft, with the exception of single engine turbine-powered EMS helicopters operations

(2) All reciprocating-powered aircraft, and

(3) All aircraft certificated with less than five (5) passenger seats, with the exception of single engine turbine-powered EMS helicopters operations

e. Cargo-Only aircraft jumpseat and/or additional crewmembers.

(1) For large and medium cabin aircraft used in cargo-only operations, jumpseat occupants and/or additional crewmembers must be accounted for using their actual weight, solicited ("asked")-weight plus ten pounds, or the standard average flight crewmember weight of 190 pounds (as revised by AC 120-27).

(2) For small cabin aircraft used in cargo-only operations, jumpseat occupants and/or additional crewmembers must be accounted for using their actual weight, or solicited ("asked")-weight plus ten pounds.

(3) Each bag carried aboard a cargo-only aircraft by a jumpseat occupant and/or additional crewmember will be accounted for as 30 pounds each (as revised by AC 120-27).

(4) For cargo-only operated aircraft, standard flight crewmember average weights and flight crewmember average bag weights, as listed in AC 120-27 (as revised) may be included in the basic empty weight of the aircraft.

f. The following loading schedules and instructions shall be used for routine operations:

Table 1 – Loading Schedules and Instructions for Routine Operations

Aircraft M/M/S	Type Loading Schedule	Loading Schedule Instructions	Weight and Balance Control Procedure
EC-130-B4	Actual or Asked weights + 10 pounds	Per manufactures instructions in appropriate RFM/AFM.	Operators GOM Section 6.
AS-350-B2	Actual or Asked weights + 10 pounds	Per manufactures instructions in appropriate RFM/AFM.	Operators GOM Section 6.

Aircraft M/M/S	Type Loading Schedule	Loading Schedule Instructions	Weight and Balance Control Procedure
AS-350-BA	Actual or Asked weights + 10 pounds	Per manufactures instructions in appropriate RFM/AFM.	Operators GOM Section 6.

1. Issued by the Federal Aviation Administration.
2. Support information reference:
3. These Operations Specifications are approved by direction of the Administrator.

[redacted]

Kay, Martin F. Principal Operations Inspector WP19

4. Date Approval is effective: 1/16/08 Amendment Number: 3
5. I hereby accept and receive the Operations Specifications in this paragraph.

[redacted]

Barton, Kurt Director of Operations Date: 1/16/08

A447. Emergency Airworthiness Directives (EAD) Notification Requirements **HQ Control: 07/30/2003**
HQ Revision: 00a

a. The owner or operator of the aircraft identified in the certificate holder or operator's aircraft listing is primarily responsible for maintaining that aircraft in an airworthy condition as required by 14 CFR §91.403(a) and Part 39. OpSpec A447 paragraph establishes emergency AD notification for Part 135 operators. Part 135 operators are asked to use a mailing address for official notification and there is no receipt to Aircraft Certification (AIR) required.

b. The following person/organization is designated as the certificate holder's AD Notification Representative for notice of Emergency ADs and in the notification address so indicated in subparagraph b(1):

(1) Designated person/organization for Emergency AD notification:

Person/Organization Name	Phone Number (24-hour when possible)	Mailing Address	Email
Reynolds Kyle J.	(702)285-8785	5596 Haven Street Las vegas, NV 89119	kyle@sundancehelicopters.com

(Note: Aircraft Certification (AIR) uses facsimile and/or US Mail for official notification of the Emergency ADs. AIR no longer use SITA or ARINC codes for electronic notification. AIR does not use E-mail for official Emergency AD notification at this time):

(2) To expedite notification, air carrier may opt to access the web site and print a copy of the AD. All ADs are posted on the internet at http://www.airweb.faa.gov/rgl.

c. To maintain the currency of this operations specification, if any of the information contained in subparagraph b above changes, the certificate holder shall amend the operations specification in accordance with 14 CFR §119.51(c).

1. Issued by the Federal Aviation Administration .
2. Support information reference:
3. These Operations Specifications are approved by direction of the Administrator.

2010.07.12 12:54:33 Central Daylight Time
Location: WebOPSS
Digitally signed by Alan M McKinney,
Principal Maintenance Inspector (WP19)

4. Date Approval is effective: 07/12/2010 Amendment Number: 3
5. I hereby accept and receive the Operations Specifications in this paragraph.

Reynolds, Kyle James, Director of Maintenance

[redacted]

Date: 07/12/2010

A449 . Antidrug and Alcohol Misuse Prevention Program **HQ Control: 07/17/2009**
HQ Revision: 00a

a. The certificate holder who operates under Title 14 Code of Federal Regulations (CFR) Part 135 certifies that it will comply with the requirements of 14 CFR Part 120 and 49 CFR Part 40 for its Antidrug and Alcohol Misuse Prevention Program.

b. Antidrug and Alcohol Misuse Prevention Program records are maintained and available for inspection by the FAA's Drug Abatement Compliance and Enforcement Inspectors at the location listed in Table 1 below:

Table 1

	Location of Antidrug and Alcohol Misuse Prevention Program Records:	Telephone Number:
Address:	5596 Haven Street	(702) 736-0606
Address:	N/A	
City:	Las Vegas	
State:	NV	
Zip Code:	89119	

c. Limitations and Provisions.

(1) Antidrug and Alcohol Misuse Prevention Program inspections and enforcement activity will be conducted exclusively by the Drug Abatement Division. All questions regarding this program should be directed to the Drug Abatement Division.

(2) The certificate holder must implement its Antidrug and Alcohol Misuse Prevention Programs fully in accordance with 14 CFR Part 120 and 49 CFR Part 40.

(3) The certificate holder is responsible for ensuring that its contractors who perform safety-sensitive work for the certificate holder are subject to Antidrug and Alcohol Misuse Prevention Programs.

(4) The certificate holder is responsible for updating this operations specification when any changes occur in the following:

(a) Location or phone number where the Antidrug and Alcohol Misuse Prevention Records are kept (as listed in Table 1 above).

(b) If the certificate holder's number of safety-sensitive employees goes to 50 and above, or falls below 50 safety-sensitive employees.

(5) The certificate holder with 50 or more employees performing a safety-sensitive function on January 1 of the calendar year must submit an annual report to the Drug Abatement Division of the FAA. The certificate holder with fewer than 50 employees performing a safety-sensitive function on January 1 of any calendar year must submit an annual report upon request of the Administrator, as specified in the regulations.

The certificate holder has 50 or more safety-sensitive employees.

1. Issued by the Federal Aviation Administration .
2. Support information reference:
3. These Operations Specifications are approved by direction of the Administrator.

2009.12.08 10:33:04 Central Standard Time
Location: WebOPSS
Digitally signed by Martin F Kay, Principal
Operations Inspector

4. Date Approval is effective: 12/08/2009 Amendment Number: 2

5. I hereby accept and receive the Operations Specifications in this paragraph.

Barton, Kurt, Director of Operations

[redacted]

Date: 12/08/2009

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PART B - En Route Authorizations, Limitations, and Procedures

B031. Areas of En Route Operation

HQ Control: 02/09/2001
HQ Revision: 01e

The certificate holder is authorized to conduct the en route operations specified in this paragraph only within the areas of en route operation listed in paragraph B050 of these operations specifications. The certificate holder shall comply with any limitations and/or procedures specified for each area listed and the provisions of the paragraphs referenced for each area. The certificate holder shall not conduct any other en route operation within any other area under these operations specifications.

1. Issued by the Federal Aviation Administration.
2. These Operations Specifications are approved by direction of the Administrator.

[redacted]
Wright, Richard A. Principal Operations Inspector WP19

3. Date Approval is effective: 8/12/03 Amendment Number: 1
4. I hereby accept and receive the Operations Specifications in this paragraph.

[redacted]
John A. Sullivan Chief Executive Officer Date: 8/12/03

B049. Operations in the Grand Canyon National Park Special Flight Rules Area (GCNP-SFRA)

HQ Control: 04/28/2000
HQ Revision: 050

The certificate holder is authorized to conduct Title 14 Code of Federal Regulations (CFR) Part 121 and/or 135 commercial special flight rules area (SFRA) operations in the Grand Canyon National Park SFRA (GCNP-SFRA) in accordance with SFAR 50-2, 14 CFR Part 93, Subpart U, 14 CFR Part 91, as applicable, and the provisions of this operations specification.

a. The certificate holder is authorized to conduct operations in the GCNP-SFRA in accordance with the following limitations and provisions:

(1) The certificate holder is in compliance with the requirements of FAA Order 1380.2A, Las Vegas FSDO Grand Canyon National Park Special Flight Rules Area Procedures Manual.

(2) The certificate holder is authorized no more than a total of 2587 commercial air tours in the GCNP-SFRA during each calendar year. Of these commercial air tours, 0 may be conducted in the Dragon and/or Zuni Point corridors. All commercial air tours must be conducted in accordance with the provisions of 14 CFR Section 93.319.

(3) The certificate holder is authorized to conduct the operations specified in its contract with the Hualapai Indian Nation and is specifically approved for 8800 operations that may transit the GCNP-SFRA under the exception of 14 CFR Section 93.319(f).

b. Before conducting any operations authorized by this operations specification, the flightcrew must be qualified in accordance with the certificate holder's approved training program for the procedures being used.

c. This operations specification is referenced in operations specification paragraph B050, as appropriate.

1. Issued by the Federal Aviation Administration.
2. These Operations Specifications are approved by direction of the Administrator.

[redacted]
Wright, Richard A. Principal Operations Inspector WP19

3. Date Approval is effective: 4/1/04 Amendment Number: 6
4. I hereby accept and receive the Operations Specifications in this paragraph.

[redacted]
Barton, Kurt Director of Operations Date: 4/1/04

B050. Authorized Areas of En Route Operations, Limitations, and Provisions

HQ Control: 09/12/97
HQ Revision: 020

a. The certificate holder is authorized to conduct en route operations in the areas of en route operation specified in this paragraph. The certificate holder shall conduct all en route operations in accordance with the provisions of the paragraphs referenced for each area of en route operation. The certificate holder shall not conduct any en route operation under these operations specifications unless those operations are conducted within the areas of en route operation authorized by this paragraph.

Authorized Areas of En Route Operation	Reference Paragraphs	Note Reference #
USA - The 48 contiguous United States and the District of Columbia	B031, B049, B057	N/A

b. The certificate holder shall conduct all en route operations in accordance with the following limitations, provisions, and special requirements referenced numerically for each area of en route operation listed in subparagraph a. above.

Note Reference #	Limitations, Provisions, and Special Requirements

1. Issued by the Federal Aviation Administration.
2. Support information reference:
3. These Operations Specifications are approved by direction of the Administrator.

[redacted]

Kay, Martin F. Principal Operations Inspector WP19

4. Date Approval is effective: 1/16/08 Amendment Number: 2
5. I hereby accept and receive the Operations Specifications in this paragraph.

[redacted]

Barton, Kurt Director of Operations Date: 1/16/08

B057. National Parks Air Tour Management Operations: Under 14 CFR Part 136

HQ Control 12/18/06
HQ Revision: 040

a. The certificate holder is authorized to conduct commercial air tour operations over national park(s) and tribal lands within or abutting the national park, in accordance with 14 CFR Part 136 and the following limitations and provisions:

b. The certificate holder is authorized to conduct commercial air tour operations over the National Park(s) and Abutting Tribal Lands (as defined in 14 CFR Section 136.3) listed in Table 1 and shall not exceed the annual number of commercial air tour operations over each National Park and Tribal Lands as listed in Table 1:

Table 1 – Authorized Commercial Air Tour Operations

National Park Unit/ Tribal Land Name	Max # Air Tour Operations/Year	Limitations and Provisions
Timbisha Shoshone Tribal Lands	6	N/A
Lake Mead and Parashant National Recreation Area and National Monument	865	N/A
Bryce Canyon National Park	12	N/A
Zion National Park	12	N/A
Death Valley National Park (T)	6	N/A

NOTE: (T) Indicates that tribal lands are within or abutting the national park.

c. This operations specification is referenced in operations specification paragraph B050, as appropriate.

d. The Interim Operating Authority (IOA) of this operations specification permits the certificate holder to continue to conduct air tour operations over the national park units and abutting tribal lands listed in Table 1, for up to 180 days after the finalized Air Tour Management Plan (ATMP). At the end of the 180 days, this operations specification will need to be re-issued, if there are any limitations set forth in the final ATMP.

e. This LOA is not a property interest but is instead an operating privilege that can be modified or revoked by the Federal Aviation Administration.

1. Issued by the Federal Aviation Administration.
2. Support information reference:
3. These Operations Specifications are approved by direction of the Administrator.

[redacted]

Kay, Martin F. Principal Operations Inspector WP19

4. Date Approval is effective: 5/15/07 Amendment Number: 4
5. I hereby accept and receive the Operations Specifications in this paragraph.

[redacted]

Barton, Kurt Director of Operations Date: 5/15/07

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Part D

D085 . Aircraft Listing

HQ Control: 02/06/1998
HQ Revision: 02a

a. The certificate holder is authorized to conduct operations under 14 CFR Part 135 using the aircraft identified on this operations specification.

Registration No.	Serial No.	Aircraft M/M/S
N115SH	3141	AS-350-B2
N230SH	2337	AS-350-B2
N250SH	3874	AS-350-B2
N313LV	3296	AS-350-B2
N340SH	4190	AS-350-B2
N345SH	3345	AS-350-B2
N350SH	2957	AS-350-B2
N351WM	2167	AS-350-B2
N37SH	2300	AS-350-B2
N507SH	4747	AS-350-B2
N53SH	2009	AS-350-B2
N612SH	4757	AS-350-B2
N751H	3403	AS-350-B2
N884SH	2884	AS-350-B2
N966SH	3787	AS-350-B2
N808HD	2347	AS-350-BA
N392SH	3922	EC-130-B4
N399SH	3992	EC-130-B4
N452SH	4528	EC-130-B4
N663SH	4663	EC-130-B4

1. Issued by the Federal Aviation Administration .
2. Support information reference:
3. These Operations Specifications are approved by direction of the Administrator.

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Location: WebOPSS
Digitally signed by Alan M McKinney,
Principal Maintenance Inspector (WP19)

4. Date Approval is effective: 05/28/2010 Amendment Number: 20
5. I hereby accept and receive the Operations Specifications in this paragraph.

Barton, Kurt, Director of Operations

[redacted]

Date: 05/28/2010

D095 . Minimum Equipment List Authorization

HQ Control: 01/25/2010
HQ Revision: 02a

a. The certificate holder is authorized to use an approved Minimum Equipment List (MEL) provided the conditions and limitations of this paragraph are met. The certificate holder shall not use an MEL for any aircraft that is not specifically authorized by this paragraph.

b. Authorized Aircraft. The certificate holder is authorized to use an approved MEL for the aircraft listed below provided the conditions and limitations of this paragraph are met:

Table 1 - Authorized Aircraft

Aircraft M/M/S	Limitations and Conditions
AS-350-BA	N/A
AS-350-B2	N/A
EC-130-B4	N/A

c. Maximum Times Between Deferral and Repair. Except as provided in subparagraph e, the certificate holder shall have items repaired within the time intervals specified for the categories of items listed below:

(1) Category A. Items in this category shall be repaired within the time interval specified in the remarks column of the certificate holder's approved MEL.

(2) Category B. Items in this category shall be repaired within 3 consecutive calendar days (72 hours) excluding the calendar day the malfunction was recorded in the aircraft maintenance log and/or record.

(3) Category C. Items in this category shall be repaired within 10 consecutive calendar days (240 hours) excluding the calendar day the malfunction was recorded in the aircraft maintenance log and/or record.

(4) Category D. Items in this category shall be repaired within one hundred and twenty (120) consecutive calendar days (2,880 hours), excluding the day the malfunction was recorded in the aircraft maintenance log and/or record.

d. MEL Management Program. The certificate holder shall develop and maintain a comprehensive program for managing the repair of items listed in the approved MEL. The certificate holder shall include in a document or its manual a description of the MEL management program. The MEL management program must include at least the following provisions:

(1) A method which provides for tracking the date and when appropriate, the time an item was deferred and subsequently repaired. The method must include a supervisory review of the number of deferred items per aircraft and a supervisory review of each deferred item to determine the reason for any delay in repair, length of delay, and the estimated date the item will be repaired.

(2) A plan for bringing together parts, maintenance personnel, and aircraft at a specific time and place for repair.

(3) A review of items deferred because of the unavailability of parts to ensure that a valid back order exists with a firm delivery date.

(4) A description of specific duties and responsibilities by the job title of personnel who manage the MEL management program.

(5) Procedures for controlling extensions to specified maximum repair intervals as permitted by **subparagraph e,** to include the limit of the extension, and the procedures to be used for authorizing extensions.

e. The certificate holder is authorized to use a continuing authorization to approve extensions to the maximum repair interval for category B and C items as specified in the approved MEL provided the responsible Flight Standards District Office is notified within 24 hours of any extension approval.

The certificate holder is not authorized to approve any extensions to the maximum repair interval for category A items or category D items as specified in the approved MEL. The Flight Standards District Office may deny the use of the continuing authorization if abuse is evident.

1. Issued by the Federal Aviation Administration .
2. Support information reference:
3. These Operations Specifications are approved by direction of the Administrator.

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Location: WebOPSS
Digitally signed by Alan M McKinney,
Principal Maintenance Inspector (WP19)

4. Date Approval is effective: 06/11/2010 Amendment Number: 7
5. I hereby accept and receive the Operations Specifications in this paragraph.

Reynolds, Kyle James, Director of Maintenance

[redacted]

Date: 06/11/2010

D102. Additional Maintenance Requirements - Rotorcraft

HQ Control: 04/19/01
HQ Revision: 00a

The certificate holder is authorized to use the following rotorcraft type identified below in its 14 CFR Part 135 nine seats or less operations provided these rotorcraft have met the additional maintenance requirements of Section 135.421:

a. Aircraft Engine. Each installed engine, to include turbosuperchargers, appurtenances and accessories necessary for its functioning shall be maintained in accordance with the maintenance documents listed in the following table. The engine shall be overhauled on or before the time-in-service interval shown in the table.

b. Rotor. Each installed main and auxiliary rotor shall be maintained in accordance with the manufacturer's maintenance documents listed in the following table.

Rotor

Rotorcraft Type	Engine			Rotor Main and Auxiliary
M/M/S	Make & Model	Maintenance Document	Time-in-Service Interval	Maintenance Document
Eurocopter EC-130-B4	Arriel 2B1	Turbomeca Maintenance Manual X-292-N5-450-2	Modular overhaul concept as per Turbomeca Maintenance Manual, Chapter 5 & Service Letter 2060/00/AR2B/14 as amended	Aerospatiale (Eurocopter) Maintenance Manual EC-130-B4, Master Servicing Manual (MSM)
Eurocopter AS-350-BA	Arriel 1B	Arreil 1B Maintenance Manual No 29201931	Modular overhaul concept as per Turbomeca Maintenance Manual Chapter 5 and Service Letter 1889/99/ARL/160	Eurocopter maintance manual AS-350 versions B,B1,B2,B3,BA,BB,D,L1
Eurocopter AS-350-B2	Arriel 1D1	Arriel Maintenance Manual X-292-E5-300-2	Modular overhaul concept as per Turbomeca Maintenance Manual , Chapter 5 & Service Letter 1910/99/ARL/1D/49	Eurocopter Maintenance Manual AS-350 versions B,B1,B2,B3,BA,BB,D,L1

1. Issued by the Federal Aviation Administration.
2. Support information reference:
3. These Operations Specifications are approved by direction of the Administrator.

[redacted]

Bierman, Charlie W. Principal Maintenance Inspector WP19

4. Date Approval is effective: 1/16/08 Amendment Number: 3
5. I hereby accept and receive the Operations Specifications in this paragraph.

[redacted]

Hoffman, Timothy D. Director of Maintenance Date: 1/16/08

D104. Additional Maintenance Requirements - Emergency Equipment **HQ Control: 05/10/04** **HQ Revision: 00a**

The certificate holder is authorized to use the following emergency equipment in its 14 CFR Part 135 nine seats or less operations, provided the applicable aircraft have met the additional maintenance requirements of Section 135.421:

a. Emergency equipment. Each item of installed emergency equipment shall be maintained in accordance with the manufacturer's maintenance documents and/or the limitations and provisions listed in the following table.

(1) In addition to the maintenance document listed in this table, the following specifications must be followed for the applicable listed emergency equipment items:

(a) Oxygen (O2) bottles and liquid fire extinguishers. Inspections, hydrostatic tests, and life limits of pressure vessels manufactured under a DOT specification are accomplished as set forth in 49 CFR Part 180.209, as amended.

(b) Fire extinguishers. Inspections, hydrostatic tests, and life limits of portable fire extinguishers are accomplished as set forth in 46 CFR Sections 71.25 and 162.028, as amended.

(c) Military-manufactured. Pressure vessels manufactured under a MIL-SPEC are maintained in accordance with the applicable military specifications.

(d) Foreign-manufactured. Foreign-manufactured pressure cylinders are maintained in accordance with the applicable foreign manufacturer's specifications.

(e) Other. Pressure cylinders not manufactured under DOT, foreign, or U.S. MIL-SPECS are maintained in accordance with the applicable aircraft manufacturer's specifications.

Emergency Equipment

Emergency Equipment Items	Maintenance Document	Limitations and Provisions
Extinguisher Halon 1221	Placard Instructions/ in accordance with the aircraft Manufacturers 100 Hr Inspection	As per manufacture instructions.
Extinguisher Dry Cemical	Placard Instructions/ in accordance with the aircraft Manufacturers 100 Hr Inspection	As per manufacture instructions.

1. Issued by the Federal Aviation Administration.
2. These Operations Specifications are approved by direction of the Administrator.

[redacted]

Bierman, Charlie W. Principal Maintenance Inspector WP19

3. Date Approval is effective: 4/12/05 Amendment Number: 1
4. I hereby accept and receive the Operations Specifications in this paragraph.

[redacted]

Hoffman, Timothy D. Director of Maintenance Date: 4/12/05

D485 . Aging Airplane Inspection and Records Review

HQ Control: 07/09/2008
HQ Revision: 00a

a. The Aging Aircraft Safety Act of 1991 requires the Administrator to make inspections and review the maintenance and other records of each aircraft an air carrier uses to provide air transportation. The certificate holder who conducts operations under 14 CFR Part 121, Part 135, or Part 129 using the airplanes identified on this Operations Specification may not use those airplanes in air transportation unless inspections are accomplished as required by the applicable regulations in 14 CFR Part 121, Part 135, or Part 129, as applicable.

b. The airplanes that this inspection and records review is applicable to include:
(1) All Part 121 airplanes (14 CFR Section 121.1105)
(2) All Part 135 multi-engine airplanes used in scheduled service (14 CFR Section 135.422/423)
(3) All Part 129 U.S.-registered multi-engine airplanes (14 CFR Section 129.105).

c. The airplanes that may be excluded from this inspection and records review are:
(1) Airplanes operated solely within the state of Alaska
(2) Airplanes that are operated under 14 CFR Part 135 as "On-Demand"
(3) Airplanes in storage and not currently being operated under 14 CFR Part 121, 135, or 129 operations (However, the required records review and inspection must be accomplished before such airplanes in storage may be placed into service after the applicable compliance date in accordance with the sections of the CFR listed in subparagraph b above)
(4) Airplanes that have not reached the age of the required records review and inspection.

d. This paragraph serves as notification to the FAA of completion of the required records review and airplane inspection to comply with the Aging Airplane Safety Act. Official Notification to the operator will be made by the CHDO and this date will be used to determine due date of next required inspection. Table 1 of this document must be completed as described in subparagraph e below.

e. *Paragraph Completion Instructions. The following instructions are to be used to complete the required records and airplane inspection in Table 1 of this paragraph. Remember: ALL cells in the table MUST be filled out before activating the paragraph!*

(1) Load ALL airplanes in the certificate holder's Aircraft Authorization information into Columns 1, 2, 3 and 4.

(2) *For each airplane that requires this records review and inspection:*

a. *Enter the date of airplane manufacture as indicated on the airframe data plate or the original airworthiness certificate, whichever is oldest, in Column 5.*
b. *Enter "Not Completed" in Column 6, Column 7,and Column 8, as applicable, to indicate that the inspection and/or records review has not yet been complete.*
c. *When the appropriate inspection is complete, insert the month and year of the accomplishment in Column 6 and Column 7, as applicable.*
d. *When both inspections are complete, enter the date (month/year) that the official notification was sent to the certificate holder in Column 8.*

(3) *For airplanes that are operated solely within the state of Alaska:*

a. *Load the airplanes in Columns 1 through 4 per Item (1) above.*
b. *Select and enter " Alaska Intrastate-N/A"(for not applicable) in EACH of the following columns: Column 5, Column 6, Column 7, and Column 8.*

(4) *For airplanes that are operated under 14 CFR Part 135 as "On-Demand":*

a. *Load the airplanes in Columns 1 through 4 per Item (1) above.*
b. *Select and enter "On Demand (135)-N/A"(for not applicable) in EACH of the following columns: Column 5, Column 6, Column 7, and Column 8.*

(5) *For airplanes in storage that will not have the required records review and inspection accomplished:*

a. *Load the airplanes in Columns 1 through 4 per Item (1) above.*
b. *Enter the date of airplane manufacture as indicated on the airframe data plate or the original airworthiness certificate, whichever is oldest, in Column 5.*
c. *Select and enter "Storage-Not Completed" in EACH of the following columns: Column 6, Column 7, and Column 8.*

(6) *For airplanes that have not reached the age where the required records review and inspection must be accomplished:*

a. *Load the airplanes in Columns 1 through 4 per Item (1) above.*
b. *Enter the date of airplane manufacture as indicated on the airframe data plate or the original airworthiness certificate,*

whichever is oldest, in Column 5.

c. Select and enter "Below Threshold-N/A" (for not applicable) in EACH of the following columns: Column 6, Column 7, and Column 8.

f. Process the paragraph and activate it. This paragraph may be considered valid if completed, signed, and activated by the FAA. It does not require the signature of the operator for the paragraph and its data to be considered valid.

TABLE 1

(*These will be loaded from the Certificate Holder's Aircraft Authorization airplane information.)

*Registration No. (Col. 1)	*Serial No. (Col. 2)	*NoseNumber, If Applicable (Col. 3)	*Airplane M/M/S (Col. 4)	Date of Airplane Manufacture (Col. 5)	Airplane Inspection Completed (Col. 6)	Records Review Completed (Col. 7)	Operator Notification (Col. 8)
No multi-engine airplanes in database	N/A	N/A	N/A	N/A	N/A	N/A	N/A

1. Issued by the Federal Aviation Administration .
2. Support information reference:
3. These Operations Specifications are approved by direction of the Administrator.

2010.04.27 12:23:47 Central Daylight Time
Location: WebOPSS
Digitally signed by Alan M McKinney,
Principal Maintenance Inspector (WP19)

4. Date Approval is effective: 04/27/2010 Amendment Number: 0
5. I hereby accept and receive the Operations Specifications in this paragraph.

Barton, Kurt, Director of Operations

[redacted]

Date: 04/27/2010

3. COMPANY POLICIES AND PROCEDURES

Table of Contents

3.1. PURPOSE

The purpose of this section of the Manual is to provide an operational guide for personnel in their day-to-day job performance.

3.2. PENALTY FOR NON-COMPLIANCE

The contents of this Manual are directive in nature: Any non-compliance will be subject to review and possible disciplinary action. Company methods of discipline can include, but are not limited to, any of the following, depending upon the seriousness of the non-compliance.

a. Written or Verbal Reprimand
b. Probation
c. Suspension Without Pay
d. Dismissal

3.3. SAFETY STANDARDS

3.3.1 It is the intention and policy of this company to establish and operate with the highest of safety standards. Employees must operate within the scope of all company policies and Federal Aviation Regulations. The operations of the company are governed by the applicable parts of FAR's 39, 43, 61, 65, 91, 119, and 135, the Operations Specifications, and this Operations Manual, approved/accepted by the FAA.

3.3.2 The Company's Safety Standards will be maintained by thorough training of all ground and flight personnel. Safety and good judgment must be the top priority in conducting all operations.

3.4. CUSTOMER RELATIONS

3.4.1 The principle aim of the Company is to provide all customers with the best possible service and maximum convenience. In order to accomplish this aim, it is the responsibility of all personnel to do their best to see that schedules are met and delays kept to a minimum. As most delays occur on the ground, it is important that flight planning and equipment preparations be completed before departure time. If there is to be a delay or the flight must be cancelled, it is of primary importance to keep the passengers informed. At all times, contact with the customer is to be conducted in a courteous and professional manner. Some work done for certain customers will be confidential in nature. Pilots and mechanics will respect the client's confidence, and will not discuss the nature of the work with anyone other than the customer's personnel.

3.4 CUSTOMER RELATIONS (Cont'd)

3.4.2 Customer property is to be handled in a manner which will preclude the possibility of damage to baggage or cargo. It is the responsibility of the Company, through designated Company personnel, to see that passenger baggage not hand carried by a passenger and customer cargo, is placed aboard the correct flight before departure and delivered to the appropriate area after landing at the destination. It will be the responsibility of the pilot-in-command, or his designee, to see that all baggage compartments are checked to ensure that the correct baggage and cargo is removed at each stop.

3.5. USE AND CARRIAGE OF INTOXICANTS AND DRUGS

3.5.1 The use of intoxicants, including beer and wine, by any Company personnel while on duty, or in the case of flight crew members within eight hours prior to duty, is prohibited. Nor may any company personnel be intoxicated or suffering from the after effects of drinking when on duty or reporting for duty. During rest periods, the consumption of alcohol while in uniform is prohibited.

3.5.2 No pilot will fly any Company aircraft during any time that his ability to perform this function is impaired by a drug. Any pilot who is addicted to drugs of any kind, or who is suffering from a condition which requires the use of addictive drugs, shall be grounded until all provisions of CFR 14 Part 120 are satisfied.

3.5.3 Except in an emergency, no flight crew member or pilot-in-command may allow a person who is obviously under the influence of intoxicating beverages or drugs to be carried in Company aircraft.

3.5.4 No person may drink any alcoholic beverages aboard a Company aircraft unless provided by the Company.

3.5.5 Certain common drugs have a marked effect on the nervous system which is temporarily detrimental to flight crew members' flying ability. Crew members shall ask their doctor if any drug prescribed or any non-prescription medicines he is taking will have any temporary effects which could impair his ability or judgment while flying.

3.5.6 Crew members are authorized and expected to ground themselves when the possibility of drug side effects exist or when they sense that their mental or physical condition might affect their ability to perform their duties. Responsibility rests on each individual pilot, with respect to all forms of medication, to keep informed as to when he/she may fly.

3.5. USE AND CARRIAGE OF INTOXICANTS AND DRUGS (Cont'd)

3.5.7 No pilot, crew member, or employee of this company will allow any aircraft operated by this company to knowingly carry any narcotic drug, marijuana, depressant or stimulant drug, or other substances of such nature as defined by Federal or State statutes unless the said substances are authorized by a Federal or State agency. The carriage of any aforementioned substance during the performance of air ambulance work with a qualified medical attendant on board shall be construed to be authorized.

3.6. BLOOD DONATIONS OR LOSS OF BLOOD RESULTING FROM MINOR INJURIES

3.6.1 Pilots may not perform flight duties within 72 hours after a blood donation. At that time, a pilot may resume normal duties providing a physician performs necessary tests and finds his/her blood condition to be normal. Due to the temporary lowering of oxygen carrying capacity of the blood following a blood donation or other substantial loss of blood, it is recommended that flight crew members do not give blood within 14 days prior to flight.

3.6.2 Crew members giving blood donations, or who have experienced a substantial loss of blood, will report this fact to the Chief Pilot or Director of Operations.

3.7. PROHIBITION AGAINST CARRIAGE OF WEAPONS

3.7.1 Federal law dictates that no person shall carry a deadly or dangerous weapon, either concealed or unconcealed, aboard an aircraft being operated by this company, except:

a. Employees or officials of Municipal, State or Federal governments, who are authorized or required to carry arms, and who present proper identification.

b. Passengers carrying sporting firearms that are dismantled and/or unloaded and encased in a suitable container authorized by the Company, separated from ammunition and stored in a baggage compartment not accessible to any passenger during flight.

c. Such other persons authorized by the Company who present a letter of authorization signed by the Director of Operations or his designee.

d. Crew members and other persons authorized by the company to carry arms.

3.7.2 In no case will authorization for the carrying of deadly or dangerous weapons be granted if such authorization is contradictory to State or local laws, or Federal Aviation Regulations.

3.7 PROHIBITION AGAINST CARRIAGE OF WEAPONS (Cont'd)

3.7.3 All flights in areas reserved or frequented by wild game or fowl are only made in accordance with applicable laws and regulations. Pilots will not aid anyone, including customers, in hunting or herding of wild game or fowl. (Except such agencies whose specific mission is associated with conservation or wildlife management.)

3.8. TRANSPORTATION OF HAZARDOUS MATERIALS

3.8.1 Ground personnel will not accept hazardous material for shipment. Materials listed in 49 CFR Part 175 do NOT apply to this company. All personnel will be knowledgeable of the hazardous materials labels in Appendix B.

3.8.2 Except for those items approved in 49 CFR Part 175, Company pilots will not knowingly transport hazardous materials on air carrier flight operations. Pilots will be trained in the recognition of hazardous cargo during the initial and recurrent training prior to assignment of flight duties.

3.8.3 Should a question arise on the proper classification of any cargo consigned to the Company, the Director of Operations, Chief Pilot, or HAZMAT Responsible Officer will contact the consignee and the FAA Flight Standards Office having inspection responsibility for the determination of the classification of the questionable cargo prior to loading on any Company aircraft. Then, if additional information is required, the Certificate Holding District Office (CHDO) will be contacted.

3.9. PROCEDURES UPON DISCOVERY OF HAZARDOUS MATERIALS

3.9.1 Upon discovery in flight of unauthorized hazardous materials aboard a Company aircraft, the pilot-in-command of that aircraft shall land at the nearest available airport or return to the base of operations, whichever is closer. Upon landing, the pilot shall immediately notify the Director of Operations or his designee and, upon return to home base, shall file a written report as outlined in 49 CFR Part 175.31.

3.9.2 If unauthorized hazardous materials are discovered aboard Company aircraft prior to departure, the pilot-in-command shall ensure that the aircraft shall not depart until the subject hazardous materials have been removed by appropriately trained personnel and the pilot-in-command shall notify the Director of Operations, Chief Pilot or HAZMAT Responsible Officer and the CHDO of the incident

3.9.3 In the event unauthorized hazardous materials are discovered by ground personnel, they will ensure that the materials are not loaded aboard a Company aircraft and will notify the shipper and the Director of Operations, Chief Pilot or HAZMAT Responsible Officer and the CHDO.

3.10. SCHEDULING (AIRCRAFT AND PILOTS)

3.10.1 Aircraft Scheduling

The Director of Operations, or his designee, is responsible for scheduling aircraft and will, before placing any aircraft on the schedule for a flight, comply with the following procedures:

1. Check the current aircraft status to ensure the aircraft is available for the required duration of the flight.

2. Ensure no conflict exists with previously scheduled trips.

3. Obtain basic information for trip, i.e., customer's name, date of trip, number of passengers or type and weight of cargo, contract number and billing information.

3.10.2 Pilot Scheduling

The Chief Pilot, or his designee, is responsible for scheduling pilots and will, before placing any pilot on the schedule, comply with the following procedures:

a. Check pilot's available schedule.

b. Check pilot currency and assignment log to ensure pilot is qualified for assignment.

c. Check to ensure the pilot can complete the flight without exceeding flight or duty time limitations. (Chart 4.2.8, Appendix A, Page A-5)

d. Take appropriate actions to notify the pilot of the trip.

3.11. AIRCRAFT FUELING

3.11.1 Aircraft Fueling at Home Station

a. All fueling will be checked by pilot-in-command with special attention to quantity, octane, grade, securing of fuel caps, and bonding and grounding.

b. Passengers shall not be permitted in or around aircraft during fueling. No smoking permitted within 50 feet during fueling operations.

3.11 AIRCRAFT FUELING (Cont'd)

3.11.2 Aircraft Fueling Away from Home Station

a. All fueling will be supervised by the pilot with special attention to proper grounding and bonding of fuel system and aircraft, quantity, octane, grade, and securing of fuel caps.

b. Passengers shall not be permitted in or around aircraft during fueling. No smoking permitted within 50 feet during fueling operations.

c. Fuel from drums will be pumped through a pump equipped with an approved filter system to avoid contamination.

3.11.3 General Precautions

a. Except in extreme conditions, aircraft shall be fueled or defueled outside hangars.

b. Pilot or fuel handler will ensure that:

1. Grounding and bonding are done before fuel cap removal.
2. Grade and quantity are as specified.
3. Fueling is stopped if any hazard is apparent.
4. Accidents, spills, and mistakes are reported immediately.
5. Ground power units are placed upwind.
6. Fuel nozzle is not left unattended during fueling.

c. Company fuel truck drivers will check fuel truck tanks for water or contamination each day before refueling aircraft. This inspection will be noted on the fuel log kept in the fuel truck. The fuel truck filter will be replaced yearly and noted in the fuel log.

d. When pilots or fuel truck drivers need to purchase aviation fuel while away from home base on DOD charters, they will use the Insuring Fuel Quality Away from Home Base Procedures (Refer to Ops Memo in Pilot Reading File) to ensure adequate quality of the fuel. Before departing on any DOD Mission, and at least monthly, the Charter Manager and the driver will obtain the most current List of Approved Fuel Vendors from the DOD website: http://www.desc.dla.mil/dcm/dcmpage.asp?linkid=intoplane , then click on: Into-Plane Contract Information System (IPCIS), then click on: Into Plane Contract Information System. At this point you can either click on search or select the region to narrow search. They will ensure that a copy of this list is in each aircraft, on the pilot information board, and in each fuel truck or trailer.

3.11 AIRCRAFT FUELING (Cont'd)

3.11.4 Hot Refueling Procedures

a. Hot refueling (refueling while the helicopter is running) will be performed only with turbine powered helicopters. Pilots and ground support personnel must be trained in hot refueling procedures. A record of this training will be kept in the pilot file or personnel training record as appropriate.

b. The helicopter shall be landed and/or a fuel truck positioned so that there is at least 10 feet clearance between the rotor blades and any building, vehicle, or other obstacles.

c. A FAA-certificated company helicopter pilot or properly trained and qualified company maintenance technician shall be at the aircraft controls during the entire fuel servicing process.

d. All passengers shall exit the helicopter, be escorted by trained company ground support personnel, and remain at a safe location at least 50 feet away during the refueling operation. The company pilot or trained ground support personnel will brief passengers on the safe way to deplane, approach and board a helicopter with its rotors turning. No smoking is allowed within 100 feet of the aircraft or refueling truck/system.

e. Company ground support personnel shall ensure that a fire extinguisher is placed close to the refueling operation and that the refueling system is grounded and bonded to the helicopter before opening the fuel cap.

f. During hot refueling, doors and windows on the refueling side of the aircraft shall be closed. Opposite side doors may be open for quick egress.

g. The fuel nozzle shall not be left unattended during fueling.

h. In the event of an emergency:
   a. The company pilot or properly trained and qualified maintenance technician at the controls will immediately shut the helicopter down and evacuate the area.
   b. The company ground support personnel will immediately stop refueling and evacuate the area.

3.11.5 Emergency Procedures

If the aircraft, fuel tank, or spilled fuel catch fire, direct immediate evacuation of the aircraft and area. Notify the any available crash fire & rescue (CFR) personnel at once. After notification, if possible or feasible, fight the fire with Class B-C extinguishers.

3.12. ACCIDENT AND INCIDENT REPORTING PROCEDURES (Section 135.23(d))

3.12.1 In the event of an aircraft accident or incident, wherever it may occur, the PIC, if not incapacitated, shall immediately report the accident or incident to the Director of Operations, the Chief Pilot, the Director of Maintenance, or the CEO with information regarding the accident or incident. These persons will immediately and by the most expeditious means available, notify the nearest NTSB Office an FAA facility, and the Certificate Holding District Office (CHDO). In addition, the pilot must submit to alcohol and drug testing as prescribed in FAR Part 120.109 (c).

a. An expeditious means of reporting would be to any AFSS/FAA/FSS or FAA/ATC facility.
b. The required information must be made to the NTSB, but initially a report to the facilities outlined in paragraph 3.12.1 a. would be the most expeditious means of making required reports.

3.12.2 After an accident or incident, the following information should be available for the FAA:

a. Type, nationality and registrations marks of the aircraft.

b. Name and owner and operator of the aircraft.

c. Name of the pilot-in-command.

d. Date and time of the accident.

e. Last point of departure and intended point of landing.

f. Position of the aircraft with reference to some easily defined geographical point.

g. Number of persons aboard, number killed and number seriously injured.

h. Nature of the accident including weather and the extent of damage to the aircraft so far as is known.

i. A description of any explosives, radioactive materials, or other dangerous articles carried.

NOTE: Pilots will not discuss any aspect of the accident incident with any newsmen, lawyer or insurance company. Pilots will only talk with police officers, NTSB representative and the FAA representative. There will be no release of information beyond that specified in this paragraph, except by the Sundance Chief Executive Officers, Director of Operations, Chief Pilot, or the Director of Maintenance.

3.12 ACCIDENT REPORTING PROCEDURES (Cont'd)

3.12.3 NTSB PART 830 ACCIDENT NOTIFICATION PROCEDURES

NTSB PART 830 NOTIFICATION AND REPORTING OF AIRCRAFT ACCIDENTS OR INCIDENTS AND OVERDUE AIRCRAFT, AND PRESERVATION OF AIRCRAFT WRECKAGE, MAIL, CARGO, AND RECORDS.

a. Subpart A-General

8301.1 Applicability. This part contains rules pertaining to:

1. Notification and reporting aircraft accidents and incidents.
2. Reporting aircraft accidents and listed incidents in the operation of aircraft when the accidents/incidents, etc. involve certain public aircraft.
3. Preservation of aircraft wreckage, mail, cargo, and records.

b. 830.2 Definitions

As used in this part the following words or phrases are defined as follows:

"Aircraft accident" means an occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight and such persons have disembarked, and in which any person suffers death or serious injury, or in which the aircraft received substantial damage.

"Civil aircraft" means any aircraft other than a public aircraft.

"Fatal injury" means any injury which results in death with 30 days of the accident.

"Incident" means an occurrence other than an accident, associated with the operation of an aircraft, which affects or could affect the safety of operations.

"Operator" means any person who causes or authorizes the operation of an aircraft, such as the President, lessee, or bailee of an aircraft.

"Public Aircraft" means an aircraft used only for the United States Government, or an aircraft owned and operated (except for commercial purposes) or exclusively leased for at least 90 continuous days by a government other than the United States Government, including a State, the District of Columbia, a territory or possession of the United States, or a political subdivision of that government. "Public aircraft" does not include a government-owned aircraft transporting property for commercial purposes and does not include a government-owned aircraft transporting passengers other than: transporting (for other than commercial purposes) pilots or other persons aboard the aircraft whose presence is required to perform, or is associated with the performance of, a governmental function such as fire fighting, search and rescue, law enforcement, aeronautical research, or biological or geological resource management; or transporting (for other than commercial purposes) persons aboard the aircraft if the aircraft is operated by the Armed Forces or an intelligence agency of the United States. Notwithstanding any limitation relating to use of the aircraft for commercial purposes, an aircraft shall be considered to be a public aircraft without regard to where it is operated by a unit of government on behalf of another unit of government pursuant to a cost

3.12 ACCIDENT REPORTING PROCEDURES (Cont'd)

reimbursement agreement, if the unit of government on whose behalf the operation is conducted certifies to the Administrator of the Federal Aviation Administration that the operation was necessary to respond to a significant and imminent threat to life or property (including natural resources) and that no service by a private operator was reasonably available to meet the threat.

"Serious Injury" means any injury which (1) requires hospitalization for more than 48 hours, commencing within 7 days from the date the injury was received; (2) results in a fracture of any bone except simple fractures of fingers, toes, or nose); (3) causes severe hemorrhages, nerve, muscle, or tendon damage; (4) involves any internal organ; or (5) involves second or third degree burns, or any burns affecting more than 5 percent of the body surface.

"Substantial damage" means damage or failure which adversely affects the structural strength, performance, or flight characteristics of the aircraft, and which would normally require major repair or replacement of the affected component. Engine failure or damage limited to an engine if only one engine fails or is damaged, bent fairings or cowling, dented skin, small punctured holes in the skin or fabric, ground damage to rotor or propeller blades, and damage to landing fear, wheels, tires, flaps, engine accessories, brakes, or wingtips are not considered "substantial damage" for the purpose of this part.

3.12.4 AIRCRAFT ACCIDENTS

a. General

NTSB Part 830 requires reporting U.S. registered aircraft accidents wherever they may occur. Company rules and procedures governing conduct after an aircraft accident shall be in compliance with NTSB Part 830.

b. Overdue Aircraft

A missing, overdue, or unreported aircraft shall be reported to the Director of Operations by the Flight Follower unless advised by the pilot or ATC amending expected arrival time. Thirty minutes shall be the maximum waiting period before a report shall be made. The Director of Operations shall determine if an aircraft is not accounted for and follow report procedures of NTSB Part 830 without delay.

c. Notification Procedures

1. Communications will be conducted over private telephone rather than radio, hotline or teletype whenever possible. If the situation demands, the senior company employee will act as company representative until relieved by higher authority.

2. Public statements or comments are expressly prohibited. To prevent misstatements and conflicting reports, only Chief Executive Officers are authorized to give statements to the media and the public. Public inquiries are to be referred ONLY to these individuals.

3.12 ACCIDENT REPORTING PROCEDURES (Cont'd)

3. The senior management person will notify the required governmental and company authorities.

4. No action will be taken by company representatives or pilots beyond these measures except with knowledge and approval of the designated company officials.

5. Information which is to be relayed to a representative of the FAA or NTSB is as stated in NTSB Part 830. This information should be provided to appropriate authorities in private and not given to any other individual until directed to do so by a CEO, Director of Operations, Chief Pilot, or the Director of Maintenance.

6. If unable to contact the company authorities listed above, the required information shall be given to the nearest FAA facility by whomever has received the accident notification.

3.12.5 Safety of Passengers

a. Obviously, the PIC's primary responsibility in any accident is the safety of the passengers.
b. Procedures shall be conducted in the interest of preventing injury or loss of life. The nature of the accident will determine the best course of action to be taken.
c. Injury prevention and evacuation procedures will be IAW those specified in the GOM. It is essential that pilots clearly understand their specific duties in handling passenger safety items.
d. In the event of a forced landing, or accident involving any aircraft being operated by or on behalf of this company, the captain, if not incapacitated, shall be responsible for ensuring passengers' needs are met until such time as the captain is relieved of this responsibility.
e. Special considerations will be made for the following:

1. Establishing a central meeting place for the passengers to provide for ground transportation.

2. The administration of first aid as necessary and the securing of competent medical aid, doctors, ambulance, etc

3. Securing continuing transportation for passengers able to travel and making travel arrangements.

4. Telephone availability for notifying friends or relatives

3.12 ACCIDENT REPORTING PROCEDURES (Cont'd)

3.12.6 Pilot and Aircraft Release

a. When an aircraft has been in an accident, neither the PIC nor the aircraft will be permitted to fly again until cleared by a responsible official of this company. Pilot clearance must be obtained from the Chief Executive Officers, the Director of Operations or the Chief Pilot. Aircraft clearances must be obtained from the Chief Executive Officers or the Director of Maintenance.

b. A release by the NTSB is required for both the aircraft and the pilot to leave the accident scene unless the pilot has been previously removed because of medical reasons.

3.13. NOTIFICATION OF AIRCRAFT ACCIDENTS, INCIDENTS, AND OVERDUE AIRCRAFT

3.13.1 Immediate Notification

The Director of Operations or his representative shall immediately, and by the most expeditious means available, notify the nearest NTSB field office an FAA facility, and the CHDO when:

a. An aircraft accident or any of the following listed serious incidents occur:

1. Flight control system malfunction or failure;
2. Inability of any required flight crewmember to perform normal flight duties as a result of injury or illness;
3. Failure of any internal turbine engine component that results in the escape of debris other than out the exhaust path;
4. In-flight fire;
5. Aircraft collision in flight;
6. Damage to property, other than the aircraft, estimated to exceed $25,000 for repair (including materials and labor) or fair market value in the event of total loss, whichever is less.
7. A complete loss of information, excluding flickering, from more than 50 percent of an aircraft's cockpit displays known as:
   a) Electronic Flight Instrument System (EFIS) displays;
   b) Engine Indication and Crew Alerting System (EICAS) displays;
   c) Electronic Centralized Aircraft Monitor (ECAM) displays; or
   d) Other displays of this type, which generally include a primary flight display (PFD), primary navigation display (PND), and other integrated displays;
8. Damage to helicopter tail or main rotor blades, including ground damage, that requires major repair or replacement of the blade(s);
9. An aircraft is overdue and is believed to have been involved in an accident.

3.13.2 Preservation of Aircraft Wreckage, Mail, Cargo, and Records

a. This company, if operating an aircraft involved in an accident or incident for which the FAA must be notified, is responsible for preserving, to the extent possible, any aircraft wreckage, cargo, and mail aboard the aircraft, and records, including recording mediums of flight, and maintenance, pertaining to the operation and maintenance of the aircraft and to the airmen, until the board takes custody thereof or a release if granted pursuant to 830.10.b Prior to the time the NTSB or its authorized representative takes custody of aircraft wreckage, mail, or cargo, such wreckage, mail, or cargo may only be disturbed to the extent necessary:

1. To remove persons injured or trapped
2. To protect wreckage from further damage; or
3. To protect the public from injury.

b. Should the aircraft wreckage and/or contents require moving, sketches, descriptive notes, and photographs shall be made, if possible, of the original position and condition of the wreckage and any significant impact marks.

c. The company shall retain records, reports, internal documents, and memoranda dealing with the accident or incident until authorized by the board to the contrary.

d. The D.O. or Chief Pilot will take possession of any VCR/DVD recordings and/or customer photographs or film made during the flight by the Company or passengers and maintain them in unviewed condition for the NTSB.

3.13.3 Emergency Procedures Involving Hazardous Materials

This company is not authorized to transport hazardous materials. Because of the increased risk to life/health should an aircraft accident occur while unknowingly carrying hazardous materials, Company personnel must be thoroughly familiar with the company **Manual for the Non-Carriage of Hazardous Materials.**

3.13.4 Reporting of Aircraft Accidents, Incidents, and Overdue Aircraft Reports and Statements to be Filed

a. This company shall file a report on NTSB FORM 6120.1/2* (OMB No. 3147-0001)\2\ within 10 days after an accident, or after 7 days if an overdue aircraft is still missing.

b. A report on an incident, for which notification is required by 830.5(a), shall be filed only as required by an authorized representative of the NTSB.

c. Each pilot, if physically able at the time the report is submitted, shall attach a statement setting forth the facts, conditions, and circumstances relating to the accident or incident as they appear to that person. If the pilot is incapacitated, that person shall submit the statement as soon as practicable.

d. This company shall file any reports with the NTSB FIELD OFFICE nearest the accident or incident.

* Forms are obtainable from the NTSB FIELD OFFICES, the National Transportation Safety Board, Washington, D.C. 20594, the Federal Aviation Administration, Flight Standards District Office, or online at http://www.ntsb.gov/aviation/6120_1.pdf .

3.13 NOTIFICATION OF AIRCRAFT ACCIDENTS, INCIDENTS, AND OVERDUE AIRCRAFT (Cont'd)

3.13.5 Required Authorities and Telephone Numbers for Accident Notification

a. Las Vegas, NV FSDO 702-269-1445
b. FSS 800-992-7433
c. FAA Regional Duty Officer 310-725-3300

National Transportation Safety Board Regional Aviation Offices

Eastern Region		
Ashburn Office *8:00 am - 4:30 pm (ET)* 45065 Riverside Parkway Ashburn, Virginia 20147 Phone: 571-223-3930 FAX: 571-223-3926	**Atlanta Office** *7:30 am - 4:00 pm (ET)* Atlanta Federal Center 60 Forsyth Street, SW Suite 3M25 Atlanta, Georgia 30303 Phone: 404-562-1666 FAX: 404-562-1674	**Miami Office** *7:30 am - 4:00 pm (ET)* 8240 NW 52nd Terrace Suite 418 Doral, Florida 33166 Phone: 305 597-4600 and 305 597-4610 FAX: 305-597-4616
Central Region		
Chicago Office *7:30 am - 4:00 pm (CT)* 31 West 775 North Avenue West Chicago, Illinois 60185 Phone: 630-377-8177 FAX: 630-377-8172	**Denver Office** *7:30 am - 4:00 pm (MT)* 4760 Oakland Street Suite 500 Denver, Colorado 80239 Phone: 303-373-3500 FAX: 303-373-3507	**Arlington Office** *7:30 am - 4:00 pm (CT)* 624 Six Flags Drive Suite 150 Arlington, Texas 76011 Phone: 817-652-7800 FAX: 817-652-7803
Western Region		
Seattle Office *8:00 am - 4:30 pm (PT)* 19518 Pacific Highway South Suite 201 Seattle, Washington 98188 Phone: 206-870-2200 FAX: 206-870-2219	**Gardena Office** *7:00 am - 3:30 pm (PT)* 1515 W. 190th Street Suite 555 Gardena, California 90248 Phone: 310-380-5660 FAX: 310-380-5666	
Alaska Region		
Anchorage Office *7:00 am - 5:00 pm (AT)*	222 West 7th Avenue Room 216, Box 11 Anchorage, Alaska 99513	Phone: 907-271-5001 FAX: 907-271-3007

3.13 NOTIFICATION OF AIRCRAFT ACCIDENTS, INCIDENTS, AND OVERDUE AIRCRAFT (Cont'd)

3.13.6 AMC (DOD) Missions.

a. When a SHI aircraft is involved in an accident or incident **in support of an AMC mission**, as defined in 49 CFR, Part 830, SHI will transmit the following information by the most expeditious means available, to the Tanker Airlift Control Center (TACC) Emergency Action Cell at Scott AFB, Illinois, telephone (618) 229-0360. On the next business day, notification must also be made to the Administrative Contracting Officer, USTRANSCOM/TCAQ-C, Scott AFB, IL, (618) 229-3771.

1. Carrier and trip number.
2. Aircraft type and number.
3. Date and time of accident.
4. Last point of departure and point of intended landing of the aircraft.
5. Nature of the accident and the extent of damage to the aircraft so far as is known.
6. Total number of crewmembers, including on board.
7. Number of injured and fatalities aboard the aircraft.
8. Condition of baggage or government- owned material, if any, on board.

b. **All Air Carrier Operations**. When a SHI aircraft is involved in **ANY accident, DOD or otherwise**, SHI shall transmit the information above to HQ AMC/A3B, Scott AFB, at (618) 229-4801 or 4343. **Incidents** are reportable to HQ AMC/A3B ONLY when they occur **on a DOD charter**. Accident and incident information should be provided on the next business day by the most expeditious means available. Accidents and incidents are defined in 49 CFR, Part 830 and in paragraph 3.13.1 of this manual.

3.14. AIRCRAFT WEIGHT AND BALANCE

3.14.1 The PIC, prior to each takeoff, shall ensure that the aircraft is loaded in compliance with weight and balance limitations as prescribed in the appropriate aircraft flight manual.

3.14.2 The useful load for tours for each Sundance helicopter is calculated by the Director of Operations, or his designee, and stored in the scheduling computer program. The weight of each Sundance pilot is also stored in the scheduling computer program.

a. Tour Flights:

1. When the company schedules tours, the passenger will be asked for their weight.

2. This declared weight plus 10 pounds will be entered on the Sundance scheduling computer program which calculates and displays the total passenger and pilot weight. The computer indicates if too much weight is scheduled for a flight. No flight will be scheduled with a weight that exceeds the useful load for the proposed tour and aircraft.

3. If, when the passengers check in and are not weighed on a scale, they obviously exceed the declared weight plus 10 pounds entered in the computer, the declared weight will be verified and if there is any question as to the accuracy of the weight, the passenger(s) will be weighed on a scale and the correct passenger(s) weight used to adjust the total weight.

4. Before each flight, the PIC shall check the passenger manifest and verify the passenger/pilot declared or actual weighed weights to ensure they do not exceed maximum allowable weights.

5. Sample weight & balance calculations for maximum front/rear passenger weights for different passenger loading configurations are available. The PIC shall use these sample weight & balance calculations to ensure that passenger loading is done so that the aircraft remains within CG limitations.

6. As a last check, pilots will perform a hover CG and power check before take-off. If insufficient power is remaining to make a safe take-off, the pilot will land and have some of the passengers or cargo removed and the new weight compared to the sample weight and balance charts to ensure the aircraft remains within CG limitations.

b. Charter Flights

1. If the charter loading is similar to the sample weight and balance calculations, pilots may use the sample calculations to ensure that loading is done so that the aircraft remains within CG limitations.

2. If the loading is dissimilar to the sample weight and balance calculations, the pilot will calculate the weight and balance using the appropriate aircraft flight manual.

3.14 AIRCRAFT WEIGHT AND BALANCE (Cont'd)

3. The PIC will determine weight of cargo and passengers by the best means available. The passengers will be weighed on scales, if available. In situations where scales cannot be used, the passengers will be asked their weight and add 10 pounds per person and will estimate the weight of bags and/or cargo and add 10 pounds.

4. As a last check, pilots will perform a hover CG and power check before take-off. If insufficient power is remaining to make a safe take-off, the pilot will land and have some of the passengers or cargo removed. The new weight shall be compared to the sample weight and balance charts to ensure the aircraft remains within CG limitations or manually calculated using the appropriate aircraft flight manual.

3.15. CARGO LOADING

3.15.1 General Cargo Loading Guidelines:

a. In all cargo operations, care shall be exercised in loading, so that loads which may have their weight concentrated in a localized area are loaded in such a manner that the weight is distributed over as wide an area as possible. This can be accomplished by using plywood bases or by propping and bracing as needed to distribute the weight evenly.

b. Pilots will ensure that no load will impose any force on the floor or other structure of the aircraft that exceeds the limitations of that structure as specified in the limitations section for the particular aircraft.

c. All loads will be secured with approved restraining devices to eliminate the possibility of shifting under normal anticipated flight and ground conditions.

3.15.2 Carriage of Cargo in Passenger Compartments:

a. Loads must be secured by an approved safety belt or other approved restraining device having enough strength to eliminate the possibility of shifting under normal anticipated flight and ground conditions.

b. Loads must be packaged or covered to avoid possible injury to passengers.

c. Loads must not be located in a position that restricts the access to or use of a required emergency exit.

d. Only light cargo (coats, hats, etc.) may be carried directly above seated passengers.

3.16. ANTI DRUG AND ALCOHOL ABUSE PROGRAM

3.16.1 Sundance Helicopters shall adhere to FAR Part 120, Drug and Alcohol Testing Program, and DOT Regulation Title 49, Part 40 – Procedures for Transportation Workplace Drug and Alcohol Testing Programs.

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4. MANAGEMENT AND OPERATIONAL PERSONNEL

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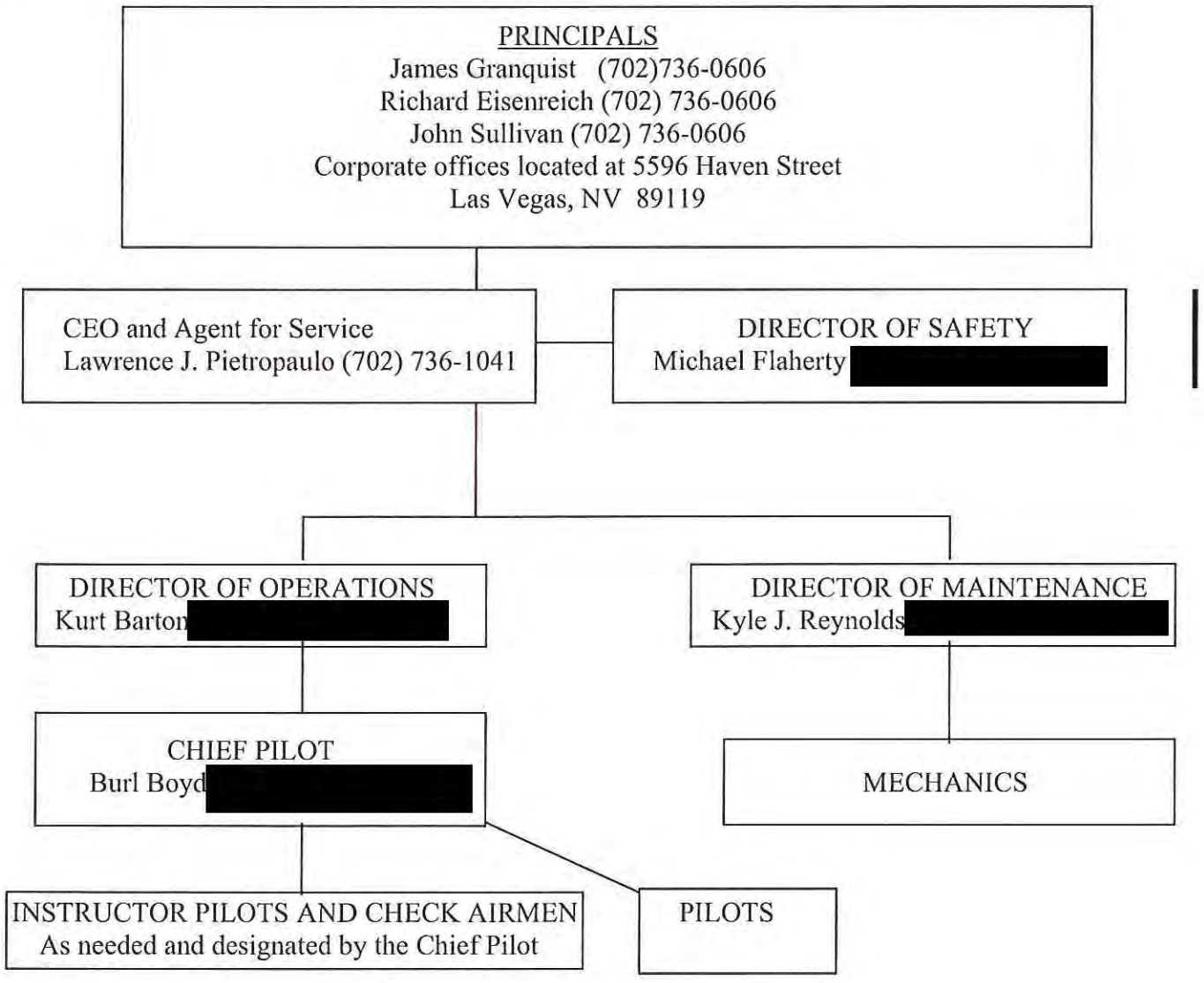
4. MANAGEMENT AND OPERATIONAL PERSONNEL (119.69(a))

4.1. ORGANIZATIONAL CHART



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4.2. DUTIES, QUALIFICATIONS, AND RESPONSIBILITIES

4.2.1 CORPORATE OFFICERS--DUTIES AND RESPONSIBILITIES

a. The corporate officers are responsible for the selection and employment of all employees of this company.

b. They are responsible for the appointment of qualified staff members and for insuring that each employee is properly instructed to perform his duties and responsibilities.

c. They are responsible for the overall safety and efficiency of company operations.

d. They may delegate functions to other personnel, but retain responsibility.

e. They also must be highly knowledgeable of the entire content of the Operations Manual, Operations Specifications, and pertinent Federal Aviation Regulations applicable to company operations.

4.2.2 DIRECTOR OF OPERATIONS--DUTIES AND RESPONSIBILITIES

a. The person assigned to the position must meet the regulatory qualifications required of a Director of Operations outlined in FAR 135 Sections 119.69 and 119.71.

b. The Director of Operations is directly responsible to the Chief Executive Officer, exercises operational control over company aircraft, and is accountable for and held responsible for operations functions relating to Air Carrier services conducted by this company including but not limited to:

1. Assists the officers in contriving, designing, and initiating company policies and procedures.

2. Initiating, amending, and signing for operations specifications and the operating certificate.

3. Supervising flight operations to ensure compliance with the operations specifications, FAR's, and company policy.

4. Supervising compliance with DOT rules regarding registration and insurance requirements and files the necessary OST forms.

5. Exercises operational control of company aircraft per FAR 135.77. May delegate operational control responsibility provided all provisions of 14 CFR Part 119.69 (d) have been met by the person to whom operational control has been delegated

6. Can receive and sign for Operations Specifications (OPSPECS) per Opspecs A007.

7. Responsible for the hiring and discharge of company flight personnel, assisted by the Chief Pilot.

4.2.2. DIRECTOR OF OPERATIONS--DUTIES AND RESPONSIBILITIES (Cont'd)

8. Reviews all required records and reports to ensure prompt reporting, filing, and necessary follow-up actions.

9. Adds or deletes aircraft from the current aircraft listing.

10. Serves as the program manager for the company alcohol and drug abuse programs.

11. Serves as the program manager for the FAA Pilot Records Improvement Act.

12. Liaison with the Administrator or his representative.

13. Must be highly knowledgeable of the entire contents of the company manual, operations specifications and pertinent federal aviation regulations applicable to company operations.

c. May delegate functions to other personnel, but retains responsibility.

4.2.3 CHIEF PILOT--DUTIES AND RESPONSIBILITIES:

a. The person assigned to the position must meet the regulatory qualifications required of a Chief Pilot outlined in FAR 135 Sections 119.69 and 119.71.

b. The chief pilot is directly responsible to the Director of Operations and directly supervises the flight crew members. Duties include, but are not limited to:

1. Directs all training activities of flight crew members.

2. Assists the director of operations in formulating operations policies, coordinates operations policies, coordinates operation and training matters with appropriate activities.

3. Maintains currency and be qualified to serve as PIC in at least one of the aircraft used in the company's operation.

4. Advises the director of operations on the status of flight operations and the training of the flight crew members and is responsible for crew standardization.

5. Conducts interviews for the purpose of hiring pilots. Initiates action for discharging said personnel.

6. Ensures prompt reporting, filing, and follow-up action on accident reports to the appropriate FAA agencies.

7. Prepares and maintains pilot records, flight schedules, reports and correspondence pertaining to operations activities.

4.2.3 CHIEF PILOT--DUTIES AND RESPONSIBILITIES (Cont'd)

8. Maintains current aircraft check list.

9. Disseminates information to all crew members as pertains to routes, airports, nav-aids, and company policies.

10. Maintains current airway manual for airport information.

11. Maintains current sectional, terminal, and area charts for areas flown.

12. Maintains Rotorcraft Flight Manual/Aircraft Flight Manual currency and check monthly to insure all manuals have the latest manufacturer revisions.

13. Submits to the FAA required reports pertaining to flight crews.

14. Designates sufficient check airmen to ensure all flight crews conform to standard procedures as outlined in applicable FAA regulations and company policies, and to ensure that all pilots maintain current route qualifications and receive proficiency checks as required by FAA and the company.

15. Schedules aircraft to the available flight crew members and establishes personnel duty hours.

16. Must be highly knowledgeable of the operations manual, FAA regulations, operations specifications, flight manuals, etc., and other instructions pertinent to his duties.

17. Exercises operational control of company aircraft per FAR 135.77.

18. Ensures that records are kept in accordance with (IAW) the provisions of the Pilot Record Improvement Act (PRIA), IAW FAR 135.63, and the procedures in the Sundance Helicopters PRIA Office Procedures Manual.

c. May delegate functions to other personnel but retains responsibility.

d. May delegate operational control responsibility provided all provisions of 14 CFR Part 119.69 (d) have been met by the person to whom operational control has been delegated.

4.2.4 DIRECTOR OF MAINTENANCE - DUTIES AND RESPONSIBILITIES

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

a. Duties and Responsibilities.

1. The person assigned to the position must meet the regulatory qualifications required of a Director of Maintenance outlined as referenced above.

2. Responsible for operational control of company aircraft with respect to aircraft maintenance.

3. The Director of Maintenance may delegate to other personnel, but retains responsibility.

4. 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 directly supervise all maintenance and inspections of company aircraft. Duties include but are not limited to;

    a. Establishment and supervision of the aircraft maintenance programs.

    b. Ensure maintenance performed on aircraft, engines, and accessories is adequately performed and in compliance with all applicable regulations and all manufactures approved data.

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

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

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

    f. Ensure all equipment, facility and tooling is maintained in serviceable condition.

    g. Ensures all precision tools and equipment that require calibration are calibrated to manufacturers and company policies.

    h. Ensures that required current data is available to maintenance personnel to include but not limited to;

        1) Manufactures airframe, engine and appliance maintenance manuals.

        2) Required Instructions for Continued Airworthiness.

3) Required FAA form 8110-3.

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

6. Coordinates with Logistics Dept. to establish minimum parts stock.

7. Hiring of maintenance personnel.

8. Supervise Quality Dept. to establish and maintain approved vendors list for outside maintenance and procurement of required replacement parts for company aircraft.

9. Ensures all company aircraft have current empty weight CG documentation as required per configuration.

10. Provide maintenance forecasting for budgetary considerations and timely procurement of required logistics.

11. Schedule maintenance personnel as required to meet aircraft maintenance requirements.

12. Submit required correspondence and reports to CHDO.

13. Initiate, amend and sign for operations specifications relating to aircraft maintenance.

14. Advise the CEO the status of maintenance programs and the capability current and projected maintenance requirements.

15. Review maintenance performance data to evaluate programs, determine trends, and project requirements and capabilities;

16. Amends company:

    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.

17. Ensure all aircraft records are maintained per the company General Maintenance Manual.

18. All other duties at the discretion of CEO.

4.2.5 PILOT IN COMMAND - DUTIES AND RESPONSIBILITIES

a. The pilot in command is directly responsible to the chief pilot. His duties include, but are not limited to:

1. Plans flight assignments and obtains briefing information regarding purpose of the flight, weather, operating procedures and special instructions.

2. Prepares or supervises preparation of company or FAA flight plan, as appropriate, considering such factors as altitude, terrain, weather, range, weight, cruise control data, airport facilities, and navigational aids.

3. Ensures all required documents and manuals are aboard.

4. Ensures aircraft is pre-flighted, inspected, loaded, and equipped for the flight.

5. Pilot shall review and document in the daily flight log all available information concerning the route to be flown and the airport to be used if he has not flown the route in the preceding 90 days.

6. Supervises loading and distribution of cargo and passengers and determines that weight and balance is within prescribed limitations as prescribed in the AFM.

7. Ensures aircraft maintenance status is in accordance with Section 6 of this manual and enters any discrepancies he notices on the Aircraft Maintenance Log (Appendix A Form #1) that are not already not listed on that form.

8. Company pilots represent our organization directly with flying customers. It is imperative that all pilots conduct themselves in a professional manner at all times.

9. Pilots will acquire and maintain all ratings as required by FAA and company standards.

10. Company pilots are personally responsible for compliance with FAR part 135.263 regarding flight and duty time limitations and the logging of flight and duty hours on the company computer system daily.

11. In an emergency requiring immediate action, the pilot in command may deviate from any regulations or rules to the extent required to meet that emergency. If this authority is exercised, the pilot in command shall comply with FAR part 135.19 (c). The required report will be sent to the CHDO through the chief pilot or director of operations.

b. Upon completion of a flight or a series of flights, the pilot will enter the Hobbs meter time, the torque events, type of flight, their initials and any discrepancies in the Aircraft Maintenance Log (Appendix A Form #1).

c. The pilot in command shall ensure that the aircraft has sufficient fuel for the proposed mission, including reserve fuel as required by FAR 135.209.

d. The pilot in command shall, prior to each flight, comply with FAR Part 135.117 and applicable portions of Section 6 of this manual regarding briefing of passengers.

e. Pilots shall have a telephone at their place of residence if at all possible.

f. On all flights, the PIC will have in his/her possession a current and valid 1st or 2nd class FAA medical certificate, their pilot certificate, and a current photo I.D.

g. Pilots will also have in their possession on all flights, a current and valid FAA airline transport or commercial pilot certificate. Copies of these certificates will be kept in the company files. The pilot is responsible for notifying the flight operations department of any changes on these certificates and allows copies to be made of any changed certificate to update the pilot record file.

h. Various governmental agency contracts require that pilots be issued pilot qualification cards. The pilot is responsible for having appropriate documents in his possession while conducting flights for these agencies. The pilot will provide these documents to flight operations so that copies of the document can be included in the pilot record file.

i. At the completion of each mission or day of flying, the pilot will ensure that his assigned aircraft is properly secured for the night. Pilots who complete a flight after normal duty hours or who are remaining overnight at locations away from the base of operation will ensure that the director of operations or chief pilot is notified that they are safely on the ground and secured for that day.

j. The pilot in command is ultimately responsible for the safety of the passengers and crew. He may delegate functions to other personnel, but retains responsibility. He must be highly knowledgeable of the operations manual, FAA regulations, operations specifications, flight manuals, etc., and other instructions pertinent to his duties.

4.2.6 COMMAND AND SEQUENCE OF COMMAND:

a. Organizational responsibility - the assignment of a crew for a specific flight will be determined by the chief pilot or his designated representative and shall be in accordance with applicable regulations of the FAA and the operations manual.

b. Command responsibility - the Pilot in Command's responsibility for the aircraft commences from the moment the aircraft is released to him until such time as the aircraft is returned to the company or the pilot in command is properly relieved.

c. Command authority – Company officials authorized operational control, or their designees, have command authority over passengers and all crew members from the time such crew members go on duty. While in command of the aircraft, the Pilot in Command may be relieved of command by these personnel for reasons of illness, incapacitation and/or violations of company policies.

4.2.7 Flight crew qualifications

a. All pilots employed by the company will possess at least a current commercial pilot certificate with the appropriate ratings for the type of flight duties to which he may be assigned.

b. All pilots will possess at least a current 2nd class medical certificate. No pilot will be assigned to any flight duties during a period of a known physical deficiency that would render him unable to pass the examination for this certificate.

4.2.8 Flight crew limitations:

No flight crew member will accept a flight if the limitations listed in FAR 135.263 and summarized on Chart 4.2.8 (Appendix A, Page A-5)will be exceeded

4.2.9 CHECK AIRMEN – DUTIES AND RESPONSIBILITIES

Check Airmen report to the Chief Pilot and the Director of Operations when assigned instructor duties by the Chief Pilot. Check Airmen will maintain high personal standards of airmanship to provide an example to other Flight Crewmembers. Check Airmen must meet the requirements of FAR 135.323 (c), 135.337, and 135.339, are designated by the Chief Pilot, and approved by the FAA Certificate Holding District Office.

a. Qualifications

1. Must meet the same hourly and certificate requirements as the PIC.
2. The candidate holds the appropriate medical certificate.
3. Passing of the Anti Drug/Alcohol Test.
4. Acceptance of candidate's Pilot Records Information Act (PRIA) information.
5. Must have satisfactorily completed the Sundance Helicopters Instructor Training course.
6. Must have completed an Initial Observation Check, and every 24 months thereafter with these checks documented on the Instructor/Check Airman Qualification record (TR-3) ((Appendix A Form #5)).

b. Duties, Responsibilities, and Authority

1. Insure that high standards/proficiency are maintained, standard operating procedures are adhered to, and that a high degree of crew coordination is in place.
2. Conduct flight training and check flights in the aircraft in accordance with Sundance Helicopters procedures, Federal Aviation Regulations, and other FAA guidance.
3. Completely and accurately document training and checking on forms provided by the Chief Pilot.
4. Provide a quarterly Check Airman activity report to the FAA Principal Operations Inspector.
5. Inform the Chief Pilot of suspected deficiencies in training.
6. Familiarize crews with the latest operational procedures.

4.2.10 Company Instructors

Company Instructors report to the Chief Pilot. Instructors provide instruction to Company personnel in accordance with the Company Training Program.

a. Qualifications

1. Flight Instructors must hold the airman certificates and appropriate class medical required to serve as Pilot in Command of the specified aircraft in revenue service and meet the requirements of FAR Part 135.323 (c), 135.338, and 135.340.
2. Instructors must have satisfactorily completed the Sundance Helicopters Instructor Training course.
3. Must have completed an Initial Observation Check, and every 24 months thereafter with these checks documented on the Instructor/Check Airman Qualification record (TR-3) ((Appendix A Form #5)).

b. Duties, Responsibilities, and Authority

1. Ensure that all trainees' training forms are properly completed and presented to the Chief Pilot.
2. Inform the Chief Pilot of any known inadequacies or ambiguities in this manual.
3. Report any training problems with trainees to the Chief Pilot.
4. Promptly forward all forms and documentation to the Chief Pilot.

4.2.10 COMPANY INSTRUCTORS – DUTIES AND RESPONSIBILITIES (Cont'd)

5. Company Instructors have the authority to conduct the duties and responsibilities above.

4.2.11 Operational Control

a. The Chief Pilot will maintain a list of all pilots who are qualified and authorized to operate Sundance Helicopters aircraft under FAR Part 135 Operations and insure they are listed on the pilot status board and maintain a list specifically listed by name and airman certificate number at SHI's principle base of operations. He shall insure that all Sundance Helicopters, Inc. (SHI) aircrews are current, trained, qualified, appropriately rated, and have a current medical to conduct flights under part 135, and approved by SHI. He shall insure that each pilot is informed and understands that failure to adhere to SHI's directions and instructions may be contrary to parts 119 and/or 135, and therefore may be subject to legal enforcement action by the FAA.

b. Only the management personnel listed in A006 of the company Operations Specifications (OpSpecs) are authorized to, and are responsible for, exercise of operational control of Sundance Helicopters aircraft. Management personnel will insure that this control is complete, effective, and sustainable over each aircraft operated, and that no surrender or loss of operational control exists.

c. Prior to a flight being conducted under FAR Part 135, at least one management person listed in A006 of the OpSpecs or his designee (must be a direct employee of Sundance Helicopters) shall:

1. Check the pilot status board to insure that the assigned crewmember is qualified and eligible to serve as a required crewmember in the aircraft and type of operation to which the crewmember is assigned.

2. Insure that the aircraft assigned to an operation is listed in OpSpecs paragraph D085 and is airworthy under the Sundance Helicopters maintenance and inspections programs as delineated in section 6.4 of the Sundance Helicopters General Operations Manual (GOM).

3. Insure that SHI's flight crews are qualified to accept specific flight assignments, considering flight and rest requirements.

4. Inform the PIC which flight operations and segments of flight operations are conducted under Part 135 and which are conducted under part 91. For part 135 operations, SHI is responsible and accountable for safe operation of all part 135 flight operations. If there is any confusion whether the mission is Part 91 or Part 135, consult the POI for verification as to the applicable part.

5. In the case of remote operations, such as charters conducted away from base, the Pilot-In-Command (PIC) of the aircraft assigned to that operation will have operational control duties and responsibilities until the completion of that particular operation. As in all flight operations, the PIC is the final authority as to the suitability of a given flight operation and its completion or diversion.

d. Sundance Helicopters, Inc. (SHI) retains all responsibility for the operational control of all aircraft operations, including all actions or in-actions of direct employees or agents of Sundance Helicopters.

e. SHI's operational control responsibility is not transferable to any other person or entity.

f. SHI's operational control responsibility supersedes any agreement, either written or oral, expressed or implied, between any persons or entities.

g. SHI shall not engage in franchising or sharing certificate holder's authority for the conduct of operations under SHI's Operations Specifications (OpSpecs), to or with any person or entity.

h. SHI shall not enter into an agreement with any aircraft owner/lessor to use the aircraft owner's/lessor's pilot in part 135 operations.

i. No aircraft owner/lessor shall be obligated to furnish pilots for SHI to operate any leased aircraft.

j. SHI shall not enter into any agreement whereby an aircraft owner/lessor has the power to veto who SHI will use to pilot the aircraft in part 135 operations, so as to limit SHI to using only the owner/lessor's pilots.

k. SHI shall not transfer, surrender, abrogate, or share operational control responsibility to or with any other party.

l. SHI shall not engage in any arrangement with any aircraft owner, lessor, person, or entity, which allows the use of an aircraft for operations without a complete, effective and sustainable transfer of operational control to SHI for all part 135 flight operations.

m. SHI shall not conduct operations under part 135, unless the crewmembers are direct employees or agents for SHI during all aspects of part 135 operations, including pre-flight and post-flight duties.

n. SHI is accountable for the actions and in-actions of all crewmembers during all part 135 operations.

4.2.12 Companies authorized to conduct operations under the certificate of Sundance HelicoptersOnly SHI and DBA's listed in OpSpecs A001 are authorized to operate under the certificate issued to Sundance Helicopters.

4.2.13 Aircraft Operation Agreements

a. Sundance Helicopters shall not wet lease from or enter into any wet leasing arrangement with any person not authorized by the FAA to engage in common carriage operation under part 121 or 135, nor whereby that other person provides an aircraft and at least one crewmember to Sundance Helicopters.

b. Any leased aircraft shall be under the exclusive control of Sundance Helicopters and shall conform to all maintenance requirements specified in 7.1 and 7.2 of this manual, and will be operated as company aircraft.

c. SHI shall not operate any aircraft in Part 135 operations that is subject to an agreement between SHI and the aircraft owner or any lessee of the aircraft, if that agreement shifts liability and accountability for the safety of Sundance Helicopter's Part 135 flight operations from Sundance Helicopters to the aircraft owner or other parties.

d. Under no circumstance shall SHI allow or create the circumstances to enable any other entity to conduct a flight for compensation or hire under part 119, 121, or 135 as if that entity were SHI.

4.2.14 Aircraft Requirements

a. Any aircraft owned by Sundance Helicopters, when conducting flight operations under Part 135, shall remain, without interruption, in Sundance Helicopter's legal and actual possession (directly or through Sundance Helicopter's employees or agents) during all of its Part 135 operations.

b. For aircraft leased by Sundance Helicopters or otherwise in the legal custody of Sundance Helicopters, that aircraft shall remain the exclusive possession or custody of Sundance Helicopters during all of its Part 135 operations and shall not be listed on any other part 119 certificate holder's OpSpecs during the term of the exclusive use lease.

c. When Sundance Helicopters operates an owned or leased aircraft under Part 91, or leases an aircraft to another entity, that aircraft shall continue to be serviced and maintained under the Sundance Helicopters Part 135 maintenance program. In the event that maintenance and service is not performed, that aircraft must undergo a complete airworthiness conformity validation check.

4.2.15 Exclusive Aircraft Use Requirements

At least one aircraft that meets the requirements for at least one kind of operation authorized in Sundance Helicopters OpSpecs shall remain in Sundance Helicopters exclusive legal possession and actual possession (directly or through Sundance Helicopters' employees and agents) as specified in Section 135.25 and is not listed on any other Part 119 certificate holder's operations specifications during the term of the exclusive use lease.

4.2.16 Director of Safety

The Director of Safety should have a verified background and related experience in the area of commercial flight operations and/or aircraft maintenance.

a. Responsibilities. When acting as the Director of Safety (DOS), he retains straight-line reporting authority directly to the CEO on all matters of safety. The DOS draws his authority from the CEO and is empowered to function independently to positively affect the integration of safety throughout the Company. Position responsibilities include the following:

1. Proposing safety policy, monitoring its implementation and providing an independent overview of company activities in so far as they affect safety.

2. Maintaining safety related data, including the minutes of safety meetings, information on hazard and risk analysis, risk management, and shall act as the "lead" in incident and accident investigations, and audit reports.

3. Serves as the focal point for hazard identification and risk assessment processes.

4. Develop and maintain the Company Emergency Response Plan.

5. Conducts internal (safety related) audits in accordance with IEP in Company Safety Management System Manual.

6. Assists in the conduct of external (safety related) audits including follow up of any discrepancies and/or corrective actions (TOPS, DOD, etc.).

7. Liaison as necessary with other organizations and relevant authorities.

8. Surveillance and reporting on safety practices and systems.

9. Chair the Company safety meetings and maintain a file of meeting minutes.

10. Provides Safety Management System training to selected personnel.

11. Disseminates relevant safety related information (Bulletins) as required.

12. Promotes a positive safety culture and the Company's commitment to safety.

b. Delegation of Authority

1. The Director of Safety may delegate authority to any properly trained and qualifying employee.

5. Reserved

6. FLIGHT OPERATIONS

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6. FLIGHT OPERATIONS

6.1. CREW SCHEDULING

6.1.1 Flight crew members are required to be available for duty at all times except during scheduled rest periods or vacations. Flight crew members will be scheduled so that flight time is evenly distributed among those in the same crew positions with consideration given to individual training and proficiency requirements. No crew member will be scheduled so that the flight and duty time exceeds standards set forth in FAR 135.267.

6.2. CREW REPORTING

6.2.1 Crew Reporting

a. As a general rule, one (1) hour prior to departure will be considered sufficient to allow time for the following:

1. The aircraft to be fueled and a preflight inspection completed.

2. A weather briefing to be received and a company or FAA flight plan filed prior to departing.

b. However, the assigned pilot-in-command, Chief Pilot, or his designee may specify a longer period if needed.

c. All flight crew personnel should be in prescribed company uniforms at the time of reporting.

6.3. CREW BRIEFING

6.3.1 It will be the responsibility of the designated Pilot in Command to determine that all of the following requirements are met:

a. That a flight route based on current and forecast weather, projected number of passengers to be carried, take-off performance data, and time of departure has been noted. All planning and computations will be in compliance with Federal Aviation Regulations, Operations Specifications, manufacturer's flight manuals, and company directives.

b. Determine that the aircraft is loaded in compliance with applicable weight and balance limitations per sample loading schedules, the approved computerized weight and balance program, and applicable information and graphs contained in the aircraft flight manual.

c. That all records and forms applicable to the particular flight, Operations Specifications, FAR 135, and other appropriate Federal Aviation Regulations are checked and complied with.

d. That all required check lists, appropriate portions of the operations manual, flight manuals, pertinent aeronautical charts, and applicable special equipment are aboard the aircraft and current and operable.

6.3 CREW BRIEFING (Cont'd)

e. That the aircraft's inspection status is up to date and required maintenance and airworthiness inspections have been performed. Check aircraft flight log and assure that all previously reported discrepancies have been corrected in accordance with sections 7.1.2 and 7.1.3.

f. That the flight will be completed prior to the next inspection due date and that the planned flight time will not be in excess of the any scheduled component inspection or required maintenance or any airworthiness directive action.

g. Determine that a thorough preflight inspection of the aircraft has been performed in accordance with a checklist which includes, but is not limited to, the following items:

1. The aircraft is to be as clean as possible, both exterior and interior. All unnecessary papers and equipment are to be removed from the aircraft.

2. All oxygen equipment, when applicable, will be checked for proper condition and storage. If the use of oxygen is required, each crewmember will receive the proper training in its use.

3. All baggage and cargo will be checked to assure that it is loaded and secured properly.

4. Fuel quantity will be checked visually and cross checked with the fuel gauge to ensure the amount and grade of fuel meets requirements.

5. All aircraft equipment and systems will be checked for proper operation applicable to the type of flight being conducted and in accordance with an approved check list.

h. The following items must be on board the aircraft for all flights:

1. Aircraft registration.

2. Airworthiness certificate.

3. Current weight and balance data and equipment list.

4. Approved aircraft flight manual.

5. Flashlight with 2 D cell batteries or equivalent in working order.

6. Complete and current aeronautical charts for the entire route of the planned trip.

7. Checklist.

8. Current Operations Manual.

9. Flight and maintenance log book to include MEL and deferred list.

10. All aircraft placards required by the limitations section of the AFM.

6.3 CREW BRIEFING (Cont'd)

11. Passenger briefing cards.

12. Passenger "sick sacks"

13. Water when appropriate

6.4. AIRCRAFT MAINTENANCE STATUS

6.4.1 The company has established procedures to enable crew members to readily ascertain the maintenance status of an aircraft prior to dispatch. Training on the use of these procedures is an integral part of the initial training requirements. An outline of their elements of the system is as follows:

a. Current maintenance status: Aircraft maintenance log (Appendix A Form #1) located in the log rack in the maintenance hangar.

b. Current inspection status: A file is maintained on each required inspection on each in-service aircraft and is posted on a daily basis at a location designated by the Director of Maintenance.

c. Discrepancy reporting and repair/replacement:

1. Upon discovery of a defect or malfunction of equipment before, during, or after a flight, the Pilot in Command will enter a concise description in the aircraft Maintenance Log, along with name and date. If an item becomes unusable or malfunctions during flight, the PIC will contact Maintenance via radio and determine if the aircraft should continue to its destination or return to base. If unable to contact via radio, the PIC shall, if in his opinion the trip can be made safely, continue to his destination then contact Maintenance via telephone. There will be NO MEL deferrals without approval from the Director of Maintenance or his designee.

2. After discrepancy repair/replacement and the aircraft has been returned to service by company qualified maintenance personnel, the pilot shall review the aircraft Maintenance Log and assure that all previously reported discrepancies have been corrected as per sections 7.1.2 and 7.1.3.

d. Routine maintenance procedures:

1. The Director of Maintenance, Director of Operations, the Chief Pilot, or their designees will review the maintenance status of each aircraft operated by the company on a daily basis. The Director of Maintenance or his designee will coordinate scheduled maintenance requirements with flight operations.

2. During the daily discrepancy log review, the mechanic conducting the review will also post the current inspection status in the aircraft log canister to indicate the previous day's flight time.

6.4 AIRCRAFT MAINTENANCE STATUS (Cont'd)

5. Maintenance away from home base: In the event of non-routine maintenance away from home base, the Pilot in Command will accomplish the following:

1. Attend to the needs of the customers first.

2. Arrange for alternate transportation, if necessary.

3. Contact the Director of Maintenance or Director of Operations or their designees and advise them of the extent of the problem and request authorization for contract maintenance or dispatch of a company mechanic.

4. The Pilot in Command will remain with the aircraft and see to its security unless specifically authorized by the officers, Director of Operations, or the Director of Maintenance, to relinquish control to maintenance personnel.

5. The Director of Maintenance may approve outside maintenance personnel to perform work on company aircraft. Under the provisions of Part120.35, if SHI conducts an on-demand operation into an airport at which no maintenance providers are available that are subject to the requirements of subpart E of Part 120 and emergency maintenance is required, SHI may use individuals not meeting the requirements of Part 120 to provide such emergency maintenance under both of the following conditions:

    a. SHI must give written notification of the emergency maintenance to the Drug Abatement Program Division, AAM–800, 800 Independence Avenue, SW., Washington, DC 20591, within 10 days after the maintenance is performed. SHI must retain copies of all such written notifications for two years.

    b. The aircraft must be reinspected by maintenance personnel who meet the requirements of Part 120 when the aircraft is next at an airport where such maintenance personnel are available.

    c. Emergency maintenance in this context means maintenance that—

        i. Is not scheduled and

        ii. Is made necessary by an aircraft condition not discovered prior to the departure for that location.

6.5. WEATHER

6.5.1 Flight crew members will obtain a weather briefing prior to all flight operations. Weather data may be obtained by telephone or VHF radio receiver from a Flight Service Station or other National Weather Service (NWS) approved weather source. If weather data is not available, VFR operations only, the Pilot in Command may, if such a report is not available, use weather information based on that pilot's own observations or on those of other persons competent to supply appropriate observations. Reference to GOM Sections 4 and 6. Qualified Internet Communications Providers for aeronautical weather data are listed in Section A010, paragraph c. of the Sundance Helicopters, Inc. OPSPECS. Regardless of how the weather is being received, it will contain some or all of the following items of information:

a. Departure, enroute, and arrival METARs and TAFs.

b. Adverse weather.

c. Synopsis of current weather.

d. Airmets and Sigmets.

e. Surface analysis over route of flight.

f. Winds and temperature aloft.

g. Pireps, if available.

h. Notam information.

i. Current TFR status.

6.6. FLIGHT LOCATING PROCEDURES

6.6.1 All company VFR flights will operate under one of three types of flight plans:

a. A VFR flight plan is filed with an FAA air traffic control facility and all flight locating procedures are handled by FAA air traffic service.

b. The company handles flight locating procedures in accordance with FAR 135.79 by the filing of a VFR flight plan using the FAA Flight Plan, Form 7233-1 (Appendix A form #10) or a reasonable facsimile thereof, and flight following is done entirely within the company.

c. Grand Canyon tours operate under a company standardized tour flight route. A formal flight plan is not filed and flight locating is done entirely within the company. Passenger manifests are maintained on the company scheduling program. Refer to company flight following guidelines, Appendix C for precise instructions.

6.6.2 In the event the aircraft will be operated on a company flight plan where communications do not exist, the following rules will apply:

a. Prior to departing for a remote area, the pilot will leave with the operations department a complete VFR flight plan including:

1. The date he expects to return, including the estimated time of return.

2. The route to be flown and the estimated time schedule of each landing and takeoff.

b. In the event the aircraft fails to return on schedule, the Director of Operations, Chief Pilot or their designees will spend one hour using all means at his disposal to locate the flight.

c. In the event the flight cannot be located within one hour, the Director of Operations, Chief Pilot or their designees will immediately notify the local FAA District Office and NTSB.

6.6.3 Upon arrival at a destination airport where ground waiting time is expected to be in excess of 3 hours, the Pilot in Command will call the company office and leave a contact number where he can be reached, estimated departure time, estimated time enroute and any changes to manifested passengers or cargo.

6.6.4 The location, date, and estimated time for reestablishment of radio or telephone communications will be left at the office if the flight is to operate in an area where communications cannot be maintained.

6.6.5 When in range of the home airport, the Pilot in Command will make maximum use of the appropriate airport frequency to update estimated time of arrival, servicing requests and passenger requests.

6.7. WEIGHT AND BALANCE

It is the responsibility of all pilots to ensure the aircraft never exceeds gross weight and center of gravity limits. Only those procedures set forth in the individual aircraft flight manuals or the alternate company procedure described in Section 6.3.1.b shall be used for the computation of weight and balance.

6.8. PASSENGER BRIEFING AND LOADING

6.8.1 Before each takeoff, the Pilot in Command will ensure that all passengers have been either orally briefed or have viewed a video on:

a. Smoking: Smoking is not allowed on company aircraft.

b. Location and use of seatbelts.

c. Location and operation of entry doors and emergency exits.

d. Location and operation of fire extinguisher(s).

e. If the flight involves over-water conditions, ditching procedures and the use of required flotation equipment.

f. Location of all survival equipment.

g. For flight operations above 12,000 feet MSL, the normal and emergency use of oxygen. The proper use and care of oxygen requires additional training for flight crews.

h. Cell phones, wireless enable devices such as PDA's, and transmitting personal electronic devices (T-PEDs): Use of these devices is prohibited anytime onboard the aircraft. They MUST be turned off and left off while onboard an aircraft.

6.8.2 Any person conducting a safety briefing, either orally or on video, must be properly trained and that training documented in the appropriate pilot or personnel training record. (Appendix D)

6.8.3 To supplement the oral briefing, printed cards will be provided for the use of each passenger containing:

a. A diagram of and method of operating the emergency exits.

b. Other instructions necessary for the use of emergency equipment on board the aircraft if required.

c. Each card must be carried on board the aircraft in locations convenient for the use of each passenger and contain information appropriate to the aircraft in which it is being used.

6.9. TRANSPORTATION OF HANDICAPPED PERSONS

For the purpose of safety, the following procedures are to be adhered to when carrying handicapped persons:

6.9.1 Handicapped persons capable of enplaning and deplaning unassisted will have no restrictions in seating, provided it is quite clear that they are capable of exiting the aircraft expeditiously in the event of an emergency.

6.9.2 Handicapped persons confined to a wheelchair:

1. All wheel chair bound persons flying on company aircraft are required to be accompanied by a responsible person capable of aiding the person in case of emergency. If only one handicapped person is to be carried on a full aircraft, he or she should be placed on the inside seat, not next to an exit, when the aircraft configuration allows. Normally the pilot should NOT assist the passenger into and out of the aircraft to avoid personal injury.

2. If two handicapped persons are to be carried on a full aircraft, they shall be placed on inside seats, not next to an exit, when the aircraft configuration allows. In this case, it will be necessary to designate the remaining passengers to assist in an emergency.

3. If one or two handicapped persons are carried on board any aircraft, the Pilot in Command shall ensure they are seated for expeditious egress in the event of an emergency.

NOTE: The pilot will be responsible for the evacuation of the handicapped persons in the event of an emergency. However, it is highly unlikely that he could assist more than two handicapped persons expeditiously. Also, it may be that the pilot himself is unable to assist. Except for extreme emergency situations, there will never be more than two handicapped persons carried on a single flight. In addition, there must always be at least one other adult capable of assisting in the event of an emergency.

6.10. GROUND OPERATIONS

6.10.1 Care will be exercised in ground operations so as to preclude damage to other aircraft, buildings, and persons.

6.10.2 Safe hover/taxi speeds will be observed, and proper control based on surface winds will be used.

6.10.3 Crew members will adhere to instructions for hover/taxi at controlled fields and will ask for progressive instructions at unfamiliar airports. When the pilot is not thoroughly familiar with a particular airport, airport taxi diagrams will be used to reduce the possibility of a runway incursion or surface incident.

6.11. WEATHER OPERATIONS

6.11.1 No company aircraft will knowingly be flown into areas of icing conditions.

6.11.2 No company aircraft is to deliberately penetrate a thunderstorm or thundershower, which are at the best, very difficult to determine. The best rule is to avoid all areas of intense precipitation with particular attention to forecast severe thunderstorm and tornado areas.

6.11.3 No company aircraft will knowingly take off with frost adhering to the rotor blades, windshields, any instrument system, or control surface unless that accumulation has been removed.

6.11.4 Pilots will avoid areas of known or visible lightning by 5 nm.

6.11.5 FARs Part 135.203, 135.205, and 135.207 state:

1. Except when necessary for takeoff and landing, no person may operate under VFR—A helicopter over a congested area at an altitude less than 300 feet above the surface.

2. No person may operate a helicopter under VFR in Class G airspace at an altitude of 1,200 feet or less above the surface or within the lateral boundaries of the surface areas of Class B, Class C, Class D, or Class E airspace designated for an airport unless the visibility is at least—

   a) During the day— 1/2 mile; or

   b) At night—1 mile.

3. No person may operate a helicopter under VFR unless that person has visual surface reference or, at night, visual surface light reference, sufficient to safely control the helicopter.

6.11. WEATHER OPERATIONS (Cont'd)

4. Additionally the following company parameters shall be used as guidelines in determining whether internal load and passenger carrying operations should be suspended:

   a) Winds: 40 knots steady - 15 knots or more gust spread

   b) Ceiling: below 200 feet AGL

   c) Visibility: less than 1 mile

   d) Turbulence: severe

NOTE: The decision to temporarily suspend operations will be made by the Director of Operations, the Chief Pilot or the Pilot in Command, based on the above criteria, current weather reports, and PIREPS. No pilot will ever be criticized for not flying in such conditions if they feel the situation is beyond their limits of controllability.

6.11.6 In addition to the above criteria, other factors to be considered are:

   a) Mission.

   b) Pilot experience and proficiency.

   c) Forecast weather conditions.

6.11.7 Whenever a pilot encounters a potentially hazardous meteorological condition or an irregularity in ground communication or navigational facility in flight which he considers to be essential to the safety of other flights, the pilot shall notify an appropriate ground facility as soon as practicable and request that the information be disseminated.

6.11.8 If the company or pilot knows of conditions, including airport and runway conditions, that are a hazard to safe operations, operations will be restricted or suspended as necessary until those conditions are corrected.

6.11.9 No Pilot in Command may allow a flight to continue toward any airport of intended landing under the conditions set forth above unless, in the opinion of the Pilot in Command, the conditions that are a hazard to safe operations may reasonably be expected to be corrected by the estimated time of arrival, or unless there is no safer procedure. In the latter event, the continuation toward that airport is an emergency situation under FAR 135.19.

6.12. PASSENGER COMFORT

6.12.1 The Pilot in Command is responsible for passenger comfort during all phases of flight and proper preflight planning is the key to assuring that the customer is provided for accordingly. To ensure all passengers are afforded the maximum conveniences and comfort, the following will be adhered to for each flight:

a. Preflight with passenger requirements in mind and be ready to depart on time.

b. Make ETA's and plan ahead for descents to avoid rapid altitude changes.

6.12.2 Another aspect of passenger comfort is the feeling of security and personal safety. This facet of comfort can only be attained by the calm, friendly, quiet professionalism of the flight crew member. If necessary, reassure passengers that the aircraft will not be flown in dangerous conditions. Pilots are to keep in mind at all times that in any group of passengers one or more may be quietly upset either physically or mentally. Since the success of the company depends in a large degree upon our reputation with the public, this area cannot be overemphasized.

6.13. TERMINATIONS SHORT OF DESTINATION

6.13.1 If it is necessary to deviate from the point of intended landing due to weather, mechanical difficulties, or low fuel on any flight, the Pilot in Command will call the company office as soon as possible, giving complete details concerning the deviation, when the flight can resume, what has been done for the care of the passengers, etc. The company is obligated to assist passengers in every reasonable way possible at locations other than the departure point or the intended destination.

6.13.2 In the event the flight cannot continue due to weather or maintenance considerations, the Chief Pilot will be contacted for a decision on further support. As the situation warrants, he will also determine if another aircraft and crew will be dispatched or use ground transportation to complete the trip.

6.14. DEPLANING PASSENGERS

Crew members will ensure passengers remain in their seats until the aircraft is landed. Caution will be exercised in deplaning passengers on ramp areas where other aircraft are running engines. Unless qualified company trained ground personnel are on site to deplane and escort the passengers, the Pilot in Command will shut down the power plant, wait for the blades to come to a complete halt and escort the passengers clear of the aircraft operations area. In the event that passengers are being unloaded with the aircraft running, the Pilot in Command or properly trained and certified passenger loading personnel will prebrief passengers to exit to the front of the aircraft in order to avoid the tail rotor area.

6.15. EMERGENCY PROCEDURES AND EMERGENCY EVACUATION DUTIES

6.15.1 In an emergency involving the safety of persons or property, the Pilot in Command may deviate from the procedures of this manual and FAR's to the extent required to meet the emergency.

6.15.2 Whenever emergency authority is exercised, the person declaring the emergency shall send a complete report of the deviation through the Director of Operations or Chief Pilot to the FAA Flight Standards District Office charged with inspection responsibility for the company's operation as soon as possible, not to exceed ten days, excluding Saturdays, Sundays and federal holidays.

6.15.3 Procedures and crew member activities during an emergency or evacuation:

a. The Pilot in Command shall:

1. Using the professionalism of his expertise and experience, first fly the aircraft.
2. Identify and verify the nature and extent of the emergency.
3. Take appropriate actions, as necessary, to eliminate the cause and/or complete the appropriate procedures.
4. Forewarn passengers to remain braced and to not open any exit until the aircraft completely stops and are advised to evacuate.
5. If time permits, make emergency call.

b. After emergency landing:

1. Evacuate the aircraft, ensuring the safety of the passengers.
2. Check for fires. Use ground fire equipment and/or portable fire extinguishers if safe and practical.
3. Secure the aircraft.

c. On ground emergencies:

1. Evacuate passengers in the most expeditious manner.
2. If able, secure the cockpit and leave the aircraft via the quickest exit with a portable fire extinguisher if needed.
3. Administer first aid as necessary. Ensure the comfort of the passengers and call for medical emergency equipment if required.

6.16. FAA INSPECTIONS

Sundance Helicopters and each person employed by them shall allow the Administrator or his representative, at any time or place, to make inspections or tests (including enroute inspections) to determine the company's compliance with the Federal Aviation Act of 1958, applicable regulations and operating certifications, and the Operations Specifications. This includes DOD Evaluators possessing an S&A Form 110A.

6.16.1 FAR 135.75 (a) Inspectors credentials: Admission to pilots' compartment: Forward observer's seat. Whenever, in performing the duties of conducting an inspection, an FAA inspector presents an Aviation Safety Inspector credential, FAA Form 110A, to the pilot in command of an aircraft operated by the certificate holder, the inspector must be given free and uninterrupted access to the pilot compartment of that aircraft. However, this paragraph does not limit the emergency authority of the pilot in command to exclude any person from the pilot compartment in the interest of safety. (b) A forward observer's seat on the flight deck, or forward passenger seat with headset or speaker must be provided for use by the Administrator while conducting en route inspections. The suitability of the location of the seat and the headset or speaker for use in conducting en route inspections is determined by the Administrator.

6.16.2 FAR 135.76 DOD Commercial Air Carrier Evaluator's Credentials: Admission to pilot's compartment: Forward observer's seat. (a) Whenever, in performing the duties of conducting an evaluation, a DOD commercial air carrier evaluator presents S&A Form 110B, "DOD Commercial Air Carrier Evaluator's Credential," to the pilot in command of an aircraft operated by the certificate holder, the evaluator must be given free and uninterrupted access to the pilot's compartment of that aircraft. However, this paragraph does not limit the emergency authority of the pilot in command to exclude any person from the pilot compartment in the interest of safety. (b) A forward observer's seat on the flight deck or forward passenger seat with headset or speaker must be provided for use by the evaluator while conducting en route evaluations. The suitability of the location of the seat and the headset or speaker for use in conducting en route evaluations is determined by the FAA.

6.17. VFR – FUEL SUPPLY

6.17.1 FAR Part 135.209 states that no person may begin a flight operation in a helicopter under VFR unless, considering wind and forecast weather conditions, it has enough fuel to fly to the first point of intended landing and, assuming normal cruising fuel consumption, to fly after that for at least 20 minutes.

6.18. Use of personal Electronic Devices (PEDs)

6.18.1 Cellular telephones, wireless-enabled devices such as PDAs, and any other transmitting personal electronic device (T-PED) must be turned off and properly stowed prior to hovering/take off and MUST remain off until after landing.

6.18.2 Non transmitting personal electronic devices may not be used anytime a sterile cockpit is necessary, such as takeoff and landing phases of flight.

6.19. CARRIAGE OF PASSENGERS UNDER THE AGE OF 13

6.19.1 Unless accompanied by an adult, no passenger under the age of 13 may be carried aboard company aircraft.

6.20. EXPANDED GRAND CANYON HELICOPTER TOUR PILOT PROCEDURES

6.20.1 Preparations for tour flights on any given day begins the evening before the flight.

6.20.2 Procedure:

a. Actions the night before flight

1. Receive by email the flight plan aircraft and pilot assignment for the following day.
2. Ensure adequate rest.
3. Ensure that alcohol consumption is per regulations.

b. Actions upon arrival at Sundance.

1. Check the flight plan, aircraft, and pilot assignment for the day.
2. Enter arrival time on the crew duty log.

c. Actions on the way to the assigned helicopter.

1. Locate proper aircraft maintenance log ("can")

    a. Check aircraft log for accuracy
        (1) Check times on log
        (2) Compare times with computer printout
        (3) Check aircraft log sheets for last 5 days, if available.
    b. Check Airworthiness Directives (AD's) for proper completion
    c. Check Deferred Discrepancy List

2. Check fuel sample
3. Preflight aircraft using aircraft checklist.
4. Fuel aircraft as required
    a. AS350 standard tour is 62%
    b. EC130 standard tour is 70%

d. Passenger preparation

1. Check flight plan on computer for passenger meal requirements
2. Get meals and refreshments if required for the tour and load into helicopter:
    a. For Escape Tours (non-landing) – get cooler with water bottles
    b. For the Breakfast flight, get one breakfast per passenger and the orange juice beverage cooler.

c. For the later landing flights, get one meal per passenger and the soda beverage cooler.

3. Get Video memory card and install in helicopter, if applicable.

e. Flight planning preparation

1. Check and initial weather.
2. Check the Pilot Reading File card to ensure yours is not "red".
3 Complete, sign and date the pilot certification sheet
   a. HIGE and HOGE data
   b. Certify performance and Weight and Balance calculations are correct.
   c. Certify proper amount of crew rest before the start of the duty day.
   d. Certify compliance with FAR 135.299c
4. Wait in break area or pilot ready room until the "green" ready light illuminates.

f. Actions when flights are ready for boarding.

1. When the "green" light illuminates go to the front counter:
   a. Check manifest for passenger weights.
   b. Use weight and balance sheet to determine who will be able to sit in the front seats.
2. Gather the assigned passengers.
3. Take passengers to aircraft
   a. Ensure passengers watched and understand the television briefing.
   b. Brief the passengers as necessary.
   c. Help photographers expeditiously take the passengers photos, as required.
   d. Safely load passengers.

g. Start aircraft per the Sundance Aircraft Cockpit Checklist

h. Actions when ready to depart the Sundance Ramp

1. When ready to hover for departure (ready to pull pitch within 10 seconds).
   a. If there are 4 or more helicopters departing at the same time, contact Ramp Control on the Company frequency for taxi instructions.
   b. If there is less than 4 helicopters but more than 1 helicopter, coordinate as necessary with the other helicopters for departure sequencing so that only one helicopter is hovering on the ramp at a time.
   c. If there is only one helicopter departing, call in the blind on the Company frequency, i.e. "Landmark 61, 62 percent fuel, switching to tower".

i. Actions during hover taxi for takeoff

1. Clear aircraft
2. Perform a stabilized 3 foot hover and check power.
3. If departing the square pads, slide sideways until clear of pad, clear and turn the tail around the mast, then hover to the centerline.

4. If departing a circle pad (except the one by the ATM), turn the tail in the desired direction, keep the aircraft in the center of the circle, and keep the nose over the outer circle until in the desired direction to depart the pad.
5. If departing the circle pad by the ATM, slide sideways until clear of pad, clear and turn the tail around the mast, then hover to the centerline.
6. Taxi no faster than a brisk walk to the service road.

j. Actions upon arriving at the service road, before takeoff.

1. Clear both directions.
2. Cross the service road and stop, complete 90° pedal turn around the mast in the direction of take off. Verify runway heading and/or direction of departure.
3. Contact McCarran Tower and request a "Tropicana Departure with "_____"(ATIS)

k. Fly tour

l. Actions on final

1. When landing south, when abeam the Papillon/Heli-USA ramp at 2500' msl:
   a. Begin descent and pick a glide angle that will allow arrival to a point just short of the Sundance ramp.
   b. Rate of closure is that of a "brisk walk".
   c. Come to a complete stop at a 3 foot stabilized hover.
2. When landing north, when on final abeam the Terrible Herbst hangar,
   a. Begin descent and pick a glide angle that will allow arrival to a point just short of the Sundance ramp.
   b. Rate of closure is that of a "brisk walk".
   c. Come to a complete stop at a 3 foot stabilized hover.

m. Actions after landing to a hover on the service road

1. Hover taxi as necessary until abeam the point you desire to taxi off to the Sundance ramp,
   a. Perform a 90° pedal turn around the mast and clear the aircraft.
   b. Enter the ramp. Only one helicopter can be hovering on the Sundance ramp at a time.

n. Actions after landing, Pilot will:

1. use Aircraft Cockpit Checklist to shutdown aircraft.
2. exit first then aid each passenger to exit aircraft.
3. retrieve the video memory card, if installed
4. ensure passengers safely walk to the front door.
5. thank each passenger for flying with Sundance at the door.

6. turn in video memory card.

o. Actions after leaving passengers and turning in video memory card.
1. Pilot will return to aircraft and close out Aircraft Maintenance Log and:
a. leave it on the pilot's seat if another pilot will be flying next.
b. leave it under the back seat behind pilot station if you are flying next.
2. Pilot will retrieve food and beverage containers from the aft cargo compartment and turn them in at the proper location.

p. Prepare for the next flight, if required.

q. Actions after last flight.

1. Have Aircraft Maintenance Log checked by Lead Mechanic or his designee if it is the last flight of the day.
2. Use the computer in Pilot ready room to:
a. Complete pay log,
b. Complete the Pilot Flight and Duty Log.

r. Leave the company premises as necessary to not exceed pilot flight and duty limits

7. MAINTENANCE

Table of Contents

7. MAINTENANCE

7.1. GENERAL

7.1.1 The Director of Maintenance (DOM) is responsible for the airworthiness of all Company aircraft, engines, rotor blades, accessories, and appliances in the aircraft. He may delegate the functions of the operations to others, but retains the responsibility for all inspections and maintenance.

7.1.2 Inspections and maintenance of the aircraft, engines, rotor systems accessories and appliances will be performed by certificated or non-certificated company technicians. All company non-certificated technicians will be supervised at all times, while performing maintenance, by a certificated company mechanic. Inspection and maintenance may also be performed by an FAA approved repair stations that meet the requirements of an approved vendor. Inspection and maintenance of the aircraft, engines, rotor systems accessories, and appliances when the aircraft are located at the home base will be conducted through the Director of Maintenance. Inspection and maintenance will be done in accordance with the applicable aircraft maintenance manual and other approved data.

7.1.3 All maintenance, preventive maintenance, Instructions for Continued Airworthiness (ICAs) as well as applicable operating regulatory inspection requirements and alteration to the aircraft, engines, rotor systems and appliances will be performed in accordance with current FAA regulations, manufacturer's service manuals recommendations and specifications, manufacturer's Mandatory Service Publications, Airworthiness Directives, ICAs, and good Maintenance practices. Following any maintenance, appropriate entries will be made in aircraft and engine log books, flight log books, and other company required maintenance records prior to the next flight.

7.1.4 A maintenance operational check flight will be made following any maintenance operation that could change the flight characteristics of the aircraft. The Director of Maintenance will ensure that all Special Inspections and Airworthiness Directive notes are complied with as required.

7.1.5 All repairs, alterations and inspections, major or minor, or reference to data acceptable to the Administrator will be recorded in the permanent maintenance record of the equipment in accordance with the requirements of FARs 43 and 91.407 (b).

7.1.6 All maintenance performed will be signed off with reference to the Aircraft Maintenance Manual or approved data. IE: The qualified and authorized maintenance technician will sign off the work by his signature and certificate number stating that it was completed Ref. a specific chapter or paragraph or page, as applicable. In the event the work is accomplished by a non-certificated technician, the work will be signed off in the corrective action block of the Maintenance Log by that technician and then that work will be inspected by a certificated technician in the corrective actions block and the sign off will be accomplished by the certified technician inspecting the work.

7.1 GENERAL (Cont'd)

7.1.7 MAINTENANCE LOG -- The Maintenance Log form (see Appendix A Form 1) is used daily to record flight information and any discrepancies (by the pilot who completes the flight) and maintenance performed (by the mechanic who completes the corrective actions for listed discrepancies). The Director of Maintenance or designee enters next inspections due and components due in the appropriate boxes.

7.2. MAINTENANCE AWAY FROM HOME

7.2.1 When maintenance is required while away from the home base, it must be approved by the Director of Maintenance or his representative.

7.2.2 The Director of Maintenance may approve outside maintenance personnel to perform work on company aircraft. Under the provisions of Part120.35, if SHI conducts an on-demand operation into an airport at which no maintenance providers are available that are subject to the requirements of subpart E of Part 120 and emergency maintenance is required, SHI may use individuals not meeting the requirements of Part 120 to provide such emergency maintenance under both of the following conditions:

a. SHI must give written notification of the emergency maintenance to the Drug Abatement Program Division, AAM–800, 800 Independence Avenue, SW., Washington, DC 20591, within 10 days after the maintenance is performed. SHI must retain copies of all such written notifications for two years.

b. The aircraft must be reinspected by maintenance personnel who meet the requirements of Part 120 when the aircraft is next at an airport where such maintenance personnel are available.

c. Emergency maintenance in this context means maintenance that—

1. Is not scheduled and

2. Is made necessary by an aircraft condition not discovered prior to the departure for that location.

7.2.3 It is the responsibility of the Director of Maintenance or his designee to determine that the mechanic or organization performing maintenance away from home is properly certified and makes proper entries in the Maintenance Log and signs for his work when repairs and maintenance are conducted away from the home base.

7.3. INSPECTIONS

7.3.1 All company aircraft will be inspected in accordance with Parts 91 and 135 of the Federal Aviation Regulations, and all applicable parts of FAR 43.

7.3.2 All maintenance entries which are required to be made in the aircraft flight log will only be made by personnel authorized by the Director of Maintenance. It is the responsibility of the Pilot in Command to log data required on the daily flight log. It is the responsibility of the Director of Maintenance to accumulate all daily flight and engine record forms and adhere to procedures required for an on condition inspection program, as stated in the manufacturer's manuals and service bulletins.

7.3.3 Compliance with Airworthiness Directives (AD) will be recorded in the record section and the aircraft, airframe, or engine log book. Each applicable AD will be identified by number and revision date, the date and engine/aircraft total time, description of how it was complied with, if recurring the next total aircraft time or due date shall be entered, and signature and mechanic certification number of the person responsible for completion. Airworthiness Directives which have recurring compliance requirements will be listed on the Airframe Recurring Airworthiness Directive / Service Bulletin Compliance Record which is kept in the Aircraft Log Can and will reflect the aircraft total time and date when the next action is required.

7.4. PARTS ORDERING PROCEDURE

7.4.1 Aircraft parts and maintenance supplies are to be purchased only by authorization of the Director of Maintenance, or his appointed designee.

7.4.2 The Director of Maintenance is to establish parts and supplies procurement procedures which will assure the least possible delay in accomplishing the required maintenance of company aircraft.

7.5. SERVICE DIFFICULTY REPORTS

7.5.1 The aircraft parts and maintenance departments shall transmit the Service Difficulty Reports required by Section 135.415 on the "Maintenance, Malfunction/Information Report" (MMIR) (Appendix A Form # 7) or FAA Form 8070-1 "Service Difficulty Report" (Appendix A Form # 6) each report required by this section, covering each 24-hour period beginning at 0900 local time of each day and ending at 0900 local time on the next day, to the FAA offices in Oklahoma City, Oklahoma. Each report of occurrences during a 24-hour period shall be submitted to the collection point within the next 96 hours. However, a report due on Saturday or Sunday may be submitted on the following Monday, and a report due on a holiday may be submitted on the next workday.

SERVICE DIFFICULTY REPORTS (CONT'D)

7.5.2 FAR 135.415 Mechanical reliability reports. Sundance Helicopters shall report the occurrence or detection of each failure, malfunction, or defect in an aircraft concerning –

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

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

c. False fire-warning during flight;

d. An exhaust system that causes damage during flight to the engine, adjacent structure, equipment, or components;

e. An aircraft component that causes accumulation or circulation of smoke, vapor, or toxic or noxious fumes in the crew compartment or passenger cabin during flight;

f. Engine shutdown during flight because of flameout;

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

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

i. Shutdown of more than one engine during flight;

j. A propeller feathering system or ability of the system to control overspeed during flight;

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

l. An unwanted landing gear extension or retraction or opening or closing of landing gear doors during flight;

m. Brake system components that result in loss of brake actuating force when the aircraft is in motion on the ground;

n. Aircraft structure that requires major repair;

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

p. Aircraft components or systems that result in taking emergency actions during flight (except action to shut-down an engine).

7.5 SERVICE DIFFICULTY REPORTS (CONT'D)

7.5.3 For the purpose of this section, *during flight* means the period from the moment the aircraft leaves the surface of the earth on takeoff until it touches down on landing.

7.5.4 In addition to the reports required by paragraph (a) of this section, Sundance Helicopters shall report any other failure, malfunction, or defect in an aircraft that occurs or is detected at any time if, in its opinion, the failure, malfunction, or defect has endangered or may endanger the safe operation of the aircraft.

7.5.5 Sundance Helicopters shall send each report required by this section, in writing, covering each 24-hour period beginning at 0900 hours local time of each day and ending at 0900 hours local time on the next day to the Las Vegas Flight Standards District Office (LAS FSDO). Each report of occurrences during a 24-hour period must be mailed or delivered to that office within the next 96 hours. However, a report that is due on Saturday or Sunday may be mailed or delivered on the following Monday and one that is due on a holiday may be mailed or delivered on the next work day.

7.5.6 Sundance Helicopters shall transmit the reports required by this section on the MMIR or FAA Form 8010-4 mentioned in paragraph 7.5.1 of this manual and shall include as much of the following as is available:

a. The type and identification number of the aircraft.

b. The name of the operator.

c. The date.

d. The nature of the failure, malfunction, or defect.

e. Identification of the part and system involved, including available information pertaining to type designation of the major component and time since last overhaul, if known. Apparent cause of the failure, malfunction or defect (e.g., wear, crack, design deficiency, or personal error).

f. Other pertinent information necessary for more complete identification, determination of seriousness, or corrective action.

7.5 SERVICE DIFFICULTY REPORTS (CONT'D)

7.5.7 FAR 135.415 (f) A certificate holder that is also the holder of a type certificate (including a supplemental type certificate), a Parts Manufacturer Approval, or a Technical Standard Order Authorization, or that is the licensee of a type certificate need not report a failure, malfunction, or defect under this section if the failure, malfunction, or defect has been reported by it under FAR 21.3 or 37.17 or under the accident reporting provisions of part 830 of the regulations of the National Transportation Safety Board.

7.5.8 No person may withhold a report required by this section even though all information required by this section is not available.

7.5.9 When Sundance Helicopters gets additional information, including information from the manufacturer or other agency, concerning a report required by this section, it shall expeditiously submit it as a supplement to the first report and reference the date and place of submission of the first report.

7.5.10 The Director of Maintenance (DOM) or his designee shall report the occurrence or detection of each failure, malfunction, or defect of an aircraft in accordance with FAR 135.415.

7.5.11 In addition to the reports required above, the Director of Maintenance shall report any other failure, malfunction, or defect that is discovered in an aircraft at any time, if in his opinion, that failure, malfunction, or defect had endangered or may endanger the safe operation of an aircraft used by this company.

7.6. WEIGHT AND BALANCE CONTROL

7.6.1 It is the responsibility of the Director of Maintenance to assure that each aircraft operated under the air carrier certificate has a current and accurate empty weight and empty CG.

7.6.2 The Director of Maintenance will be responsible to investigate all weight changes in aircraft to assure that the aircraft loading information is current, accurate, and up-to-date.

7.7. AUTHORIZED MINIMUM EQUIPMENT LIST (MEL) PROCEDURES

7.7.1 Management of MEL Procedures

Refer to the Approved MEL for the appropriate aircraft type for MEL and Deferred Items Procedures.

7.8. MAINTENANCE TECHNICIAN DUTY TIME

The Maintenance Technician duty day is normally limited to 14 hours per day, but may be extended as directed by the DOM to meet maintenance requirements.

7.9. MAINTENANCE REVIEW BOARD

Purpose: To ensure positive communication within the Sundance Helicopters Maintenance Department management team, with regard to oversight and assessment coordination of regulatory compliance and aircraft airworthiness.

a. The Sundance Helicopters management team consists of the Director of Maintenance, his designees who meet the requirements of Part 119.71, and maintenance department management personnel as required.

b. The Maintenance Review Board will convene periodically as Regulatory and / or Airworthiness issues present themselves. The Director of Maintenance or his designee will maintain a record of these meetings, who attended, the dates, and items discussed.

7.10. COMPONENT SERVICEABILITY IDENTIFICATION TAGS

7.10.1 All components removed from aircraft will be tagged with appropriate serviceability status tag. This may be accomplished by either tagging the component, the storage rack or table. Serviceable and unserviceable components will be segregated at all times. See Appendix A Form # 14 for examples.

7.11. AIRCRAFT RECORDS

Except for work performed in accordance with 14 CFR § 91.411 and 91.413, Sundance Helicopters will retain the following records in an active file until the work is repeated or superseded by other work or for the period of one year after the work is performed:

7.11.1 Records of the maintenance, preventive maintenance, and alteration and records of the 100-hour, annual, progressive, and other required or approved inspections, as appropriate, for each aircraft (including the airframe) and each engine, propeller, rotor, and appliance of an aircraft. The records must include:

a. A description (or reference to data acceptable to the Administrator) of the work performed;

b. The date of completion of the work performed;

c. The signature, and certificate number of the person approving the aircraft for return to service.

7.11.2 Records containing the following information will be retained and transferred with the aircraft at the time the aircraft is sold:

a. The total time in service of the airframe, each engine, each propeller, and each rotor.

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

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

d. The current inspection status of the aircraft, including the time since the last inspection required by the inspection program under which the aircraft and its appliances are maintained.

e. The current status of applicable airworthiness directives (AD) and safety directives including, for each, the method of compliance, the AD or safety directive number and revision date. If the AD or safety directive involves recurring action, the time and date when the next action is required.

f. Copies of the forms prescribed by Sec. 43.9(a) of this chapter for each major alteration to the airframe and currently installed engines, rotors, propellers, and appliances.

7.11.3 Sundance Helicopters will make all maintenance records required to be kept by this section available for inspection by the Administrator or any authorized representative of the National Transportation Safety Board (NTSB).

7.11.4 Annual Aircraft Records Audit

a. 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.

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

Appendix A Form #1

SUNDANCE HELICOPTERS, Inc. **MAINTENANCE LOG** Page:

Date:	N-	Model:	S/N:	Pre-flight: 1 2 3 4 5 6	Post-flight:

Tach Time	Flt Time	Aircraft Total Time	Engine Total Time	Starts	Total NP Cycles	Ldgs	Total Landings	Flt NG	Total NG Cycles	Tour Type or Customer	Thru-Flt	Pilot	Chtr	Grnd

Next Insp Due	AFTT	AD / SB / Components Due	AFTT	AD / SB / Components Due	AFTT
30 Hr Insp					
100 Hr Insp					
Fire Ext.	/ /				

I certify that this aircraft has been inspected as referenced on the attached inspection form; completed a __________ inspection; determined to be in an airworthy condition and is approved for return to service.

AFTT Signature & Cert. No

Engine Check T4 Margin (+1.6%) TQ Margin (-19°C)

EC130 Results at PDC conditions +

Altitude	T4	NR	OAT	NG	TQ	Initials

DISCREPANCIES		CORRECTIVE ACTIONS		
Item #				
Date:	Name:	Date:	AFTT:	Signature & Cert. No
Item #				
Date:	Name:	Date:	AFTT:	Signature & Cert. No
Item #				
Date:	Name:	Date:	AFTT:	Signature & Cert. No

Maintenance Log Verification ______ (Lead Mechanic)

SDM-000 Revision: Original

Appendix A Form #2

SUNDANCE HELICOPTERS PILOT FLIGHT DUTY RECORD

Pilot:					Month:						Year:	
Day	Duty Time			Flight Time			Flight Time		Landings		Daily	Accum	Comments
	On	Off	Total	B206	other	AS350	Day	Nite	Day	Nite	Total	Total	
1			0.0								0.0	0.0	
2			0.0								0.0	0.0	
3			0.0								0.0	0.0	
4			0.0								0.0	0.0	
5			0.0								0.0	0.0	
6			0.0								0.0	0.0	
7			0.0								0.0	0.0	
8			0.0								0.0	0.0	
9			0.0								0.0	0.0	
10			0.0								0.0	0.0	
11			0.0								0.0	0.0	
12			0.0								0.0	0.0	
13			0.0								0.0	0.0	
14			0.0								0.0	0.0	
15			0.0								0.0	0.0	
16			0.0								0.0	0.0	
17			0.0								0.0	0.0	
18			0.0								0.0	0.0	
19			0.0								0.0	0.0	
20			0.0								0.0	0.0	
21			0.0								0.0	0.0	
22			0.0								0.0	0.0	
23			0.0								0.0	0.0	
24			0.0								0.0	0.0	
25			0.0								0.0	0.0	
26			0.0								0.0	0.0	
27			0.0								0.0	0.0	
28			0.0								0.0	0.0	
29			0.0								0.0	0.0	
30			0.0								0.0	0.0	
31			0.0								0.0	0.0	
		TOTALS:		0.0	0.0	0.0	0.0	0.0	0	0	0.0		
Flt Time Month: 0.0				Flt Time Qtr: 0.0			Flt Time Last Quarter:					Calendar Yr Total:	

Appendix A Form # 3

SUNDANCE HELICOPTERS INC, MEL Deferred Item Log

Registration Number	Model	Serial Number

DM#	DISCREPANCY				CORRECTIVE ACTION	
MEL Ref.	CAT	MEL Due Date	A/C Total Time			A/C Total Time
Date Deferred	Deferred By Signature & Certificate Number				Date Corrected	Signature & Certificate Number
Ext. Date	Authorized By		Order Date	Delivery Date	Extension Repair Date	Copy To FAA (Submitter) Signature__________ Date______
Reason For Extension.						

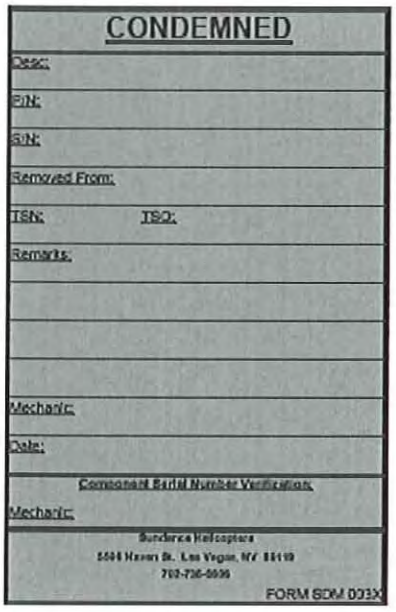
DM#	DISCREPANCY				CORRECTIVE ACTION	
MEL Ref.	CAT	MEL Due Date	A/C Total Time			A/C Total Time
Date Deferred	Deferred By Signature & Certificate Number				Date Corrected	Signature & Certificate Number
Ext. Date	Authorized By		Order Date	Delivery Date	Extension Repair Date	Copy To FAA (Submitter) Signature__________ Date______
Reason For Extension.						

DM#	DISCREPANCY				CORRECTIVE ACTION	
MEL Ref.	CAT	MEL Due Date	A/C Total Time			A/C Total Time
Date Deferred	Deferred By Signature & Certificate Number				Date Corrected	Signature & Certificate Number
Ext. Date	Authorized By		Order Date	Delivery Date	Extension Repair Date	Copy To FAA (Submitter) Signature__________ Date______
Reason For Extension.						

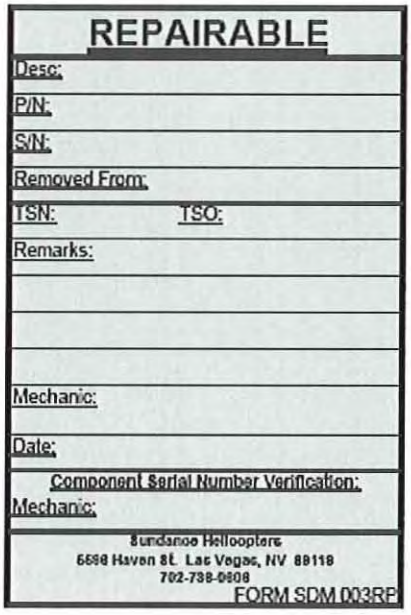
SDMEL-001 Revision: Original

Appendix A Form # 4

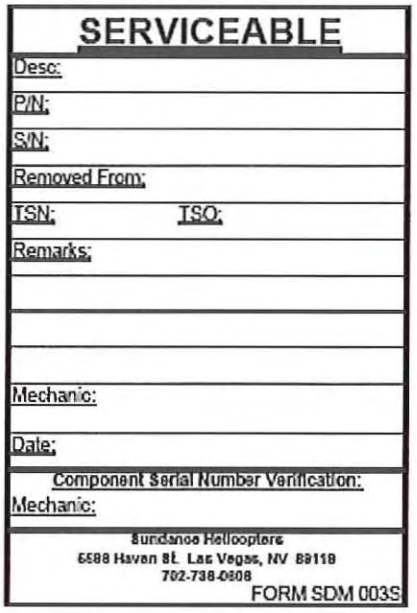
Component Serviceability Identification Tags



RED
Unserviceable (Scrap)



GREEN
Repairable



YELLOW
Serviceable

Appendix A Chart 4.2.8

Reference: § 135.263 Flight time limitations and rest requirements: All certificate holders.

(a) A certificate holder may assign a flight crewmember and a flight crewmember may accept an assignment for flight time only when the applicable requirements of §§135.263 through 135.271 are met.

(b) No certificate holder may assign any flight crewmember to any duty with the certificate holder during any required rest period.

(c) Time spent in transportation, not local in character, that a certificate holder requires of a flight crewmember and provides to transport the crewmember to an airport at which he is to serve on a flight as a crewmember, or from an airport at which he was relieved from duty to return to his home station, is not considered part of a rest period.

(d) A flight crewmember is not considered to be assigned flight time in excess of flight time limitations if the flights to which he is assigned normally terminate within the limitations, but due to circumstances beyond the control of the certificate holder or flight crewmember (such as adverse weather conditions), are not at the time of departure expected to reach their destination within the planned flight time.

Maximum flight times: (1) 500 hours in any calendar quarter., (2) 800 hours in any two consecutive calendar quarters., (3) 1,400 hours in any calendar year.
During any 24 consecutive hours the total flight time of the assigned flight **when added to any other commercial flying by that flight crewmember may not exceed** 8 hours for a flight crew consisting of one pilot. A flight crewmember's flight time may exceed the flight time limits above if the assigned flight time occurs during a regularly assigned duty period of no more than 14 hours and— (1) If this duty period is immediately preceded by and followed by a required rest period of at least 10 consecutive hours of rest; (2) If flight time is assigned during this period, that total flight time when added to any other commercial flying by the flight crewmember may not exceed 8 hours for a flight crew consisting of one pilot;; and If the combined duty and rest periods equal 24 hours. Each duty period must provide for at least 10 consecutive hours of rest during the 24-hour period that precedes the planned completion time of the assignment. When a flight crewmember has exceeded the daily flight time limitations in this chart, because of circumstances beyond the control of the SHI or flight crewmember (such as adverse weather conditions), that flight crewmember must have a rest period before being assigned or accepting an assignment for flight time of at least— (1) 11 consecutive hours of rest if the flight time limitation is exceeded by not more than 30 minutes; (2) 12 consecutive hours of rest if the flight time limitation is exceeded by more than 30 minutes, but not more than 60 minutes; and (3) 16 consecutive hours of rest if the flight time limitation is exceeded by more than 60 minutes. (f) Sundance Helicopters, Inc. will provide each flight crewmember at least 13 rest periods of at least 24 consecutive hours each in each calendar quarter.

Appendix A Form # 6

FAA Form 8070-1 SERVICE DIFFICULTY REPORT

FORM APPROVED
OMB No. 2120-0663 12/31/2005

U.S. Department of Transportation Federal Aviation Administration

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

Service Difficulty Report
AERONAUTICAL EQUIPMENT

RIS- WS 8070-1
Control No.
ATA Code

MAJOR EQUIPMENT IDENTITY

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

PROBLEM DESCRIPTION

DATE	STATUS	CARRIER	ATA	AIRCRAFT TYPE	N-	CONTROL NO.
TEXT						

SPECIFIC PART CAUSING PROBLEM

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

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

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

SUBMITTER

SUBMITTER (Check one)	A	B	C	D	E	F	G	H	I	P. S. L.	ALERT	OPER/D.O.
	☐	☐	☐	☐	☐	☐	☐	☐				

PREC. PROC. NATURE STAGE STAT ROLL Frame SYS. SYS.

ADDITIONAL COMMENTS

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

Shaded Areas are for FAA USE ONLY

Appendix A Form # 7

118761 B

MAINTENANCE, MALFUNCTION/INFORMATION REPORT

SUBMITTED TO:
COMPANY NAME, ADDRESS & PHONE NUMBER

DO NOT WRITE IN SHADED AREAS

CONTROL NUMBER
MFG NO
CUST NO

	MO	DAY	YR
REPORT DATE			
OCCUR DATE			

CONTACT: NAME
SUBMITTED BY
COMPANY NAME, ADDRESS & PHONE NUMBER

PHONE NUMBER
SIGNATURE

SUBMITTED FOR:
COMPANY NAME, ADDRESS & PHONE NO.

PHONE NUMBER
CONTACT: NAME

CUSTOMER ORDER: COMPLETE FOR NON WARRANTY PARTS RETURNED FOR REASON CHECKED

PO NO _____ ☐ COST EST REQUIRED ☐ REPAIR ☐ OVERHAUL ☐ EVALUATION ☐ EXCHANGE ☐ RETURN FOR CREDIT

☐ OTHER (SPECIFY) _____

WARRANTY CLAIM: COMPLETE IF YOU ARE REQUESTING WARRANTY ADJUSTMENT.

☐ CREDIT FOR REPLACEMENT PART ☐ CREDIT FOR LOCAL REPAIR ☐ MFG WARRANTY REPAIR

☐ OTHER (SPECIFY) _____

REPAIR INFORMATION: COMPLETE WHEN WARRANTY ADJUSTMENT IS FOR LOCAL REPAIR: (OTHER IF APPLICABLE)
ATTACH COPY OF REPAIR INVOICE OR WORK ORDER

PARTS COST _____ LABOR _____ HRS @ US $ PER HR _____ TOTAL REPAIR COST _____

AIRCRAFT DATA: COMPLETE ALL SECTIONS IF REPORTED PART HAS BEEN INSTALLED IF REPORTED PART IS A SPARE NOT INSTALLED, COMPLETE ONLY MFG/MODEL AND ENTER "SPARE" IN N# BLOCK

MFG/MODEL	FEDERAL REGISTRATION #	SERIAL NUMBER	DEL DATE	HRS AT DEL	HRS AT OCCUR

ENGINE DATA:

ENGINE MODEL NO 1	TOTAL TIME	SERIAL NUMBER	ENGINE MODEL NO 2	TOTAL TIME	SERIAL NUMBER

REPORTED PART DATA: REQUIRED FOR ALL SUBMITTALS NOTE THE COMPLETED HISTORICAL RECORD MUST ACCOMPANY THIS SUBMITTAL IF PART HAS A SCHEDULED RETIREMENT OR O/H INTERVAL

QTY	ATA CODE	PART NUMBER	PART NAME	SERIAL NUMBER	HRS AT OCCUR

ORIGINAL EQUIPMENT ☐ YES ☐ NO IF NO → COMPLETE	PO/INVOICE NO	INVOICE DATE	A/C HRS AT INSTALL	INSTALL DATE

SHIPPING DATA COMPLETE ONLY IF REPORTED PART HAS BEEN SHIPPED →	QUANTITY	WAY BILL NUMBER	CARRIER	DATE SHIPPED

REPLACEMENT PART DATA: COMPLETE RELEVANT INFORMATION FOR PART INSTALLED

QTY	PART NUMBER	SERIAL NUMBER	INVOICE/PO NUMBER	INVOICE COST	☐ RECONDITIONED ☐ NEW PART TIME: _____

SHIPPING DATA COMPLETE IF REPLACEMENT PART HAS BEEN RECEIVED →	QUANTITY	WAY BILL NUMBER	CARRIER	DATE SHIPPED

REASON FOR REPORT: CODE (IF APPLICABLE): ☐☐☐☐ _____

ACTION: CODE (IF APPLICABLE): ☐☐☐☐ _____

AEC-208 5/92

118761 B

Appendix A Form # 8

Sundance Helicopters Tour Flight Following Chart

Date:

Land mark		7:00 am/8:15 am			9:45 am/11:00 am			12:30 pm/1:45 pm			3:15 pm/4:30 pm			6:00 pm/Sunset/Serenity		
		T/O	ETA	Call In ETA	T/O	ETA	Call In ETA	T/O	ETA	Call In ETA	T/O	ETA	Call In ETA	T/O	ETA	Call In ETA
50	250SH															
51	251SH															
52	73DP															
53	53SH															
54	345SH															
55	115SH															
56	350SH															
57	37SH															
60	1188P															
61	230SH															
62	313LV															
63	884SH															
64	751H															
65	215LA															
66	966SH															
67	351WM															

Appendix A Form # 9
Flight Plan Update Form

Sundance Helicopters Flight Plan Update

Aircraft:	Date:
Update Received By:	Time Update Received:
Revised Point of Departure:	Revised Departure Time:
Revised Route of Flight:	
Revised Destination	Revised ETA:
Revised Est. RTB:	Revised Number on Board
Remarks	

Form SDFPU-001 Revision: 1

Appendix A Form #10

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION **FLIGHT PLAN**	(FAA USE ONLY) ☐ PILOT BRIEFING ☐ VNR ☐ STOPOVER	TIME STARTED	SPECIALIST INITIALS

1. TYPE	2. AIRCRAFT IDENTIFICATION	3. AIRCRAFT TYPE/ SPECIAL EQUIPMENT	4. TRUE AIRSPEED	5. DEPARTURE POINT	6. DEPARTURE TIME		7. CRUISING ALTITUDE
☐ VFR ☐ IFR ☐ DVFR			KTS		PROPOSED (Z)	ACTUAL (Z)	

8 ROUTE OF FLIGHT

9. DESTINATION (Name of airport and city)	10. EST. TIME ENROUTE HOURS	MINUTES	11. REMARKS

12. FUEL ON BOARD HOURS	MINUTES	13. ALTERNATE AIRPORT(S	14. PILOT'S NAME, ADDRESS & TELEPHONE NUMBER & AIRCRAFT HOME BASE	15. NUMBER ABOARD
			17. DESTINATION CONTACT/TELEPHONE (OPTIONAL)	

16. COLOR OF AIRCRAFT	CIVIL AIRCRAFT PILOTS. FAR Part 91 requires you to file an IFR flight plan to operate under instrument flight rules in controlled airspace. Failure to file could result in a civil penalty not to exceed $1,000 for each violation (Section 901 of the Federal Aviation Act of 1958, as amended). Filing of a VFR flight plan is recommended as good operating practice. See also Part 99 for requirements concerning DVFR flight plans.

FAA Form 7233-1 (8-82) **CLOSE VFR FLIGHT PLAN WITH _____ FSS ON ARRIVAL**

Appendix A Form #11

Letter of Transmittal
GOM UPDATE CONTROL

REVISION # 6 **DATE: 3/24/09**

After updates are made, initial, date, and return this sheet to D.O. Sundance Helicopters

LOCATION	MANUAL HOLDER	UPDATED BY	DATE OF UPDATE
MASTER	D.O.		
CEO	Larry Pietropaulo		
C.O.O.	Rick Eisenreich		
Dir. of Ops.	D.O.		
Dir. of Maint.	D.M. EXAMPLE		
Chief Pilot	C.P.		
N115SH	C.P.		
N230SH	C.P.		
N250SH	C.P.		
N313LV	C.P.		
N340SH	C.P.		
N345SH	C.P.		
N350SH	C.P.		
N351WM	C.P.		
N37SH	C.P.		
N392SH	C.P.		
N399SH	C.P.		
N452SH	C.P.		
N53SH	C.P.		
FAA	P.O.I.		

Revision Instructions: Remove and replace Page vii, viii, 6-1, and 6-14.

Summary of revision: Company policy of carriage of passengers under the age of 13 years old added.

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List of Effective Pages

FAA ACCEPTED
04/02/2007 [redacted]
[redacted] LAS FSDO-19

Sundance Helicopters, Inc.

WILL-NOT CARRY

HAZARDOUS MATERIALS

OPERATIONS MANUAL and

TRAINING PROGRAM

May 2006

(Change 1)

Record of Changes

WILL-NOT CARRY HAZARDOUS MATERIALS

OPERATIONS MANUAL AND TRAINING PROGRAM

Change Number to Basic	Date	Description
Original	April 2006	
Change 1	May 15, 2006	Page B1: Added (Change 1) Pages B2 -- B-5: Modified/updated Page B-6: Added manual availability regulation. Added 175.25 notice clarification and changed page number Pages B-7 - B-9: Modified Page B-10: Removed 175.9 citation in Section V Pages B-11 – B-13: Modified Page B-14: Regulation update added in Table Pages B15 - B-23: Modified

FAA ACCEPTED
DATE: 04/02/2007
[redacted]
LAS FSDO-19

WILL-NOT CARRY HAZARDOUS MATERIALS OPERATIONS MANUAL AND TRAINING PROGRAM

Sundance Helicopters, Inc.
(Air Carrier Name)

KBMA477F
(Certificate Number)

5596 Haven Street
(Physical Address)

Las Vegas, NV 89119
(City) (State) (Zip Code)

(702) 736-0606
(Telephone)

[redacted]
(Signature Block)
Corporate Officer

3/22/07
Date

(702) 736-4107
(Fax)

[redacted]
(Signature Block)
Responsible Hazardous Materials Officer

3/22/07
Date

Statement of Intent:

Sundance Helicopters will not accept and/or knowingly transport hazardous materials as defined by 49 CFR onboard our aircraft. This Hazardous Materials (HM) Operations Manual and Training Program is intended to ensure that our employees, agents, and contract employees are prepared and knowledgeable regarding our policies and procedures as a Will-NOT carry certificate holder. This manual/program will be continually reviewed to ensure compliance with 14 CFR and 49 CFR.

[redacted]
Training Program Approved and
Recommend Manual Acceptance
Hazardous Materials Branch Manager

3/22/07
Date

[redacted]
Manual Accepted
FSDO Principal Operations Inspector

04/02/2007
Date

HAZARDOUS MATERIALS OPERATIONS MANUAL AND TRAINING PROGRAM TABLE OF CONTENTS

GENERAL

PART ONE: HAZARDOUS MATERIALS OPERATIONS MANUAL

PART TWO: HAZARDOUS MATERIALS TRAINING PROGRAM

APPENDICES

C	Hazardous Materials Onboard Aircraft
D	Hazardous Materials Incident Report: DOT Form F 5800.1 (01-2004)
E	Notification to Repair Stations of HM Policies and Operation Specifications

WILL-NOT CARRY HAZARDOUS MATERIALS OPERATIONS MANUAL AND TRAINING PROGRAM

GENERAL

Notwithstanding the contents of this manual, we are responsible for compliance with all provisions of the Hazardous Material Regulations (HMR), Title 49, Code of Federal Regulations (49 CFR) and the Federal Aviation Regulations, Title 14 CFR.

A current copy of this manual or appropriate portions thereof shall be made available to ground personnel, maintenance personnel, or crewmembers performing any Hazardous Material (HM) duties. (14CFR 121.137 & 135.21)

This Hazardous Materials Operations and Training Program shall be followed by each crewmember and person performing or directly supervising any of the following job functions involving any item for transport on board, attached to, or suspended from an aircraft: Acceptance, Rejection, Handling, Storage incidental to transport, Packaging of company material, or Loading. No employee, agent, or contract employee may prepare HM for shipment, including Company Material (COMAT), unless trained in this function.

The terms **Dangerous Goods and Hazardous Materials** (HM) are synonymous and may be used interchangeably. Dangerous goods and hazardous materials are sometimes also referred to as regulated materials, restricted articles, and dangerous materials. Definitions of common terms applicable to HM are found in 49 CFR 171.8, Definitions and Abbreviations.

We shall not use or allow any crewmember or person to perform or directly supervise any job function in the Training Reference Table (Part Two), unless that person has satisfactorily completed our FAA-approved initial or recurrent hazardous materials program within the past 24 months. Exceptions for new hires, persons performing a new job function, and persons who work for more than one certificate holder are specified in 14 CFR 121.1005(b) and (c) or 135.505(b) and (c). An exception for operations in foreign locations is specified in 14 CFR 121.1005(f) or 135.505(f).

The notice required by 49 CFR 175.25 shall be prominently displayed at all facility locations where passengers are ticketed, boarded, and/or baggage is checked. The notice required by 49 CFR 175.26 shall be prominently displayed at each facility locations where cargo is accepted.

Each repair station performing work for or on our behalf shall be notified in writing of our policies pertaining to hazardous materials (14 CFR 121.1005(e) or 135.505(e)). This notification requirement only applies to repair stations that are regulated by 49 CFR Parts 171-180. (**See Appendix E**)

All HM Company Material (COMAT) will be offered to a different mode of transportation (e.g., ground) and/or a certificate holder that is authorized to transport HM.

PART ONE

HAZARDOUS MATERIALS OPERATIONS MANUAL

I. RESPONSIBILITIES

The general transportation requirements of 49 CFR state that shippers of HM must properly declare any such material at the time it is offered for transportation to the carrier. The certification and information provided by the shipper may be relied upon to determine if the shipment is authorized for air transportation. Therefore, it is acceptable practice to assume that a HM package may be recognized by its conspicuous markings and label(s), which are required to be displayed on the outside of the package, and by the shipping document(s) which must be a part of the offering and must accompany the shipment during transportation.

Shippers/Passengers may be unaware of the requirements for offering and transporting HM. When accepting cargo or baggage, it may be necessary to question persons offering these items to determine the exact contents and thereby prevent the inadvertent acceptance and transport of HM. All cargo or baggage and any documents tendered with the shipment will be reviewed for an indication that the item(s) is HM. All employees, agents, and contract employees shall be provided a trigger list of indicators of undeclared HM to assist them in their review. **(See Appendix A, Hidden Shipment Indicators)**

Any package that displays a HM marking or label, as shown in the latest DOT labeling chart, or otherwise is known or suspected of containing HM, will not be accepted for air transportation or loaded aboard an aircraft. **(See Appendix B, DOT Chart)**

II. COMPANY MATERIALS (COMAT)

COMAT is an industry term developed and used by certificate holders and is generally used to describe a wide array of company materials including replacement items for installed equipment and consumable materials. **(See Appendix C, Hazardous Materials Onboard Aircraft)**

A. Shipping / Transporting of COMAT

All COMAT will be evaluated and identified by its hazardous or non-hazardous classification. All HM Company Material (COMAT) will be offered to a different mode of transportation (e.g., ground) and/or a certificate holder in full compliance with all provisions of the Hazardous Materials Regulations. Employees, agents, and contractors who prepare and/or offer HM shipments for transportation must receive additional function-specific training to satisfy all of the requirements for shippers under 49 CFR Part 172, Subpart H.

B. HM COMAT Exceptions (49 CFR 175.8)

HM COMAT will not be transported on our aircraft. The ONLY exception is:

A tire assembly with a serviceable tire is not subject to the provisions of this subchapter provided the tire is not inflated to a gauge pressure exceeding the maximum rated pressure for that tire and the tire (including valve assemblies) is protected from damage during transport. A tire or tire assembly which is unserviceable or damaged is forbidden from air transport unless deflated to where it no longer meets the definition of hazardous material. (See 49 CFR 175.8(b)(4)).

All COMAT received from Repair Stations and Parts Suppliers shall be scrutinized to determine if the material is HM before introducing it into the transportation system.

III. PRE-BOARD INSPECTION

No employee, agent, or contract employee shall load any cargo or baggage containing indicators of HM aboard an aircraft, onto an aircraft pallet, or into a Unit Load Device (ULD) unless it can be verified that the contents are not HM.

IV. HM EXCEPTIONS FOR PASSENGER AND CREW MEMBERS

Certain materials that are normally regulated as HM are excepted from the HMR. A summary of commonly utilized exceptions of this regulation are provided in this section. All available exceptions are listed in 175.10 to include matches/lighters, implanted medical devices and radiopharmaceuticals, alcoholic beverages, butane powered curling irons, small thermometers, small arms ammunition, dry ice, self inflating life jacket, compressed gas for medical limbs, and electrically powered heat producing articles. A current copy of Title 49 CFR Part 175 or a printout of the applicable sections from the internet will be maintained for reference.

http://ecfr.gpoaccess.gov or http://hazmat.dot.gov

A. HM Carried by Passenger or Crew Members

Personal use items carried by passenger or crew members are allowed under the following conditions:

1) Non-radioactive medicinal or toiletry articles (including aerosols) may be carried in checked or carry-on baggage. 2) Any Division 2.2 aerosol with no subsidiary risk and a protective cap (checked baggage only).

3) The aggregate quantity of all HM items carried by each person allowed in 1-2 above may not exceed 70 oz. (2 kg) by mass or 68 fl. oz. (2 L) by volume. Each individual container cannot exceed 18 oz. (0.5 kg) by mass or 17 fl. oz. (500 ml) by volume.

4) One self-defense spray not exceeding 4 fl. oz. that incorporates a positive means to prevent accidental discharge (checked baggage only).

B. Acceptance of Wheelchair / Mobility Aids

Battery-powered wheelchairs/mobility aids can be accepted as baggage.

Wheelchairs/mobility aids will **NOT** be transported if it exhibits evidence of previous leakage or damage. Wheelchair batteries are either "spillable" or "non-spillable".

1) Non-Spillable Batteries in a Wheelchair / Mobility Aid

Non-Spillable batteries may be accepted for transport with the battery attached when properly prepared for shipment.

- The battery must be disconnected and terminal and end cables are insulated to prevent short circuits.
- The battery must be securely attached to the wheelchair/mobility aid.
- A visual inspection must not reveal any obvious defects.
- Batteries manufactured after September 30, 1995, must be marked on the outside of the battery case, "NON-SPILLABLE" or "NON-SPILLABLE BATTERY."

If the wheelchair/mobility aid cannot be loaded/stowed in an upright position, it is advisable that the battery be removed and terminals are insulated to prevent short circuits.

2) Spillable Batteries in a Wheelchair / Mobility Aid

Spillable batteries may be accepted for transport with the battery attached when properly prepared for shipment.

- The battery must be disconnected and terminal and end cables are insulated to prevent short circuits.
- The battery must be securely attached to the wheelchair/mobility aid.
- A visual inspection must not reveal any obvious defects.
- The wheelchair/mobility aid must be loaded, stowed, secured, and unloaded in an upright position (If this cannot be accomplished the battery must be removed).
- The Pilot-in-Command must be advised either orally or in writing prior to departure as to the location of the spillable battery aboard the aircraft.

3) Battery Removal

If a battery is removed from the wheelchair/mobility aid, the removal must be performed by qualified airline personnel only. The battery must be transported in strong, rigid packaging under the following conditions:

- The packaging must be leak-tight and impervious to battery fluid. An inner liner may be used to satisfy this requirement if there is absorbent material placed inside of the liner and the liner has a leak proof closure;
- The battery must be protected against short circuits, secured upright in the packaging, and be packaged with enough compatible absorbent material to completely absorb liquid contents in the event or rupture of the battery; and
- The packaging must be labeled with a CORROSIVE label, marked to indicate proper orientation, and marked with the words "Battery, wet, with wheelchair;"

C. Lithium Batteries

Personal use consumer electronic and medical devices (watches, calculators, cameras, cellular phones, lap-top computers, camcorders, hearing aids, etc.) containing lithium cells

or batteries, and spare lithium batteries and cells for these devices, are allowed in checked or carry-on baggage. Each installed or spare lithium battery must confirm to the following:

- The lithium content of the anode of each cell, when fully charged, is not be more than 5g; and
- The aggregate lithium content of the anodes of each battery, when fully charged, is not more than 25g.

V. PROHIBITED OPERATIONS AS A WILL-NOT CARRY

All regulations listed below are prohibited from being utilized due to our WILL-NOT Carry policy. Any interest in utilizing the below regulations requires coordination and update of our HM Operations Manual and Training Program to a WILL Carry with our FAA Principal Operations Inspector (POI).

175.8(a)(3) Exceptions for operator equipment and items of replacement dealing with COMAT.

175.310 Transportation of flammable liquid fuel; aircraft only means of transportation.

175.501 Special requirements for oxidizers and compressed oxygen.

VI. REPAIR STATION NOTIFICATION

Each repair station regulated under 49 CFR Parts 171-180 performing work for or on our behalf must be notified in writing of our policies and operation specifications pertaining to its "Will-NOT Carry" HM status in accordance with 49 CFR 121.1005(e) or 135.505(e). It is acceptable to notify all repair stations our HM policies and operation specifications.

Each repair station must acknowledge receipt of the above notification. A record of the acknowledgement receipt should be kept together with the notification. **(See Appendix E, Repair Station Notification)**

VII. NOTIFICATION OF HM INCIDENTS, DISCREPANCIES AND REQUIRED REPORTS

A. Reporting of Incidents (See 49 CFR 171.15)

1) A HM incident shall be reported, as soon as practical but no later than 12 hours after the occurrence the incident, by telephone to the National Response Center (NRC) at 800-424-8802 (toll free) or 202-267-2675 or electronically at http://hazmat.dot.gov/spills.htm. Notice involving an infectious substance may be given to the Director, Centers for Disease Control and Prevention at 800-232-0124 (toll free) in place of the notice to the NRC. This includes incidents that occur during the course of transportation (including loading, unloading, or temporary storage) in which:

a) A person is killed; or b) A person receives injuries requiring hospitalization; or c) An evacuation of the general public occurs lasting one or more hours; or d) One or more major transportation arteries or facilities are closed or shut down for one hour or more; or e) The operational flight pattern or routine of an aircraft is altered; or f) Fire, breakage, spillage, or suspected radioactive contamination occurs involving shipment of RAM; or g) Fire, breakage, spillage, or suspected contamination occurs involving shipment of infectious substances (etiologic agents); or
h) A situation exists of such a nature (e.g., a continuing danger to life exists at the scene of the incident that, in the judgment of the carrier, it should be reported to the NRC even though it does not meet the criteria of paragraph 1)(a) thru (g) of this section.

2) Radioactive Materials (RAM) - In addition to the notification to the NRC, a notification must be made at the earliest practicable moment to the shipper of the RAM involved in the incident.

3) Filing an Incident Report (See 49 CFR 171.16) A report shall be submitted on DOT Form F 5800.1 (01-2004), within 30 days of the date of discovery, for each incident that occurs during the course of transportation (including loading, unloading, or storage, incidental thereto) in which any of the circumstances set forth in 49 CFR 171.15(b) occurs, there has been an unintentional release of hazardous materials from a package or quantity of hazardous waste has been discharged during transportation, or undeclared hazardous materials are found in cargo or baggage. ***Exception: Undeclared hazardous materials discovered in baggage during the airport screening process are not subject to filing a DOT F5800.1. Such items in baggage must be reported as a discrepancy per 49 CFR 175.31. (See Section VII.B)***

A copy of DOT Form F 5800.1 (01-2004) will be forwarded to:

a) Information Systems Manager, PHH-63
Pipeline and Hazardous Materials Safety Administration
Department of Transportation
Washington, DC 20590-0001, and

b) The nearest FAA Security Office in the region of discovery.
Instructions for completing DOT Form F 5800.1 (01-2004) are included in Appendix D.

B. Reporting of Discrepancies (See 49 CFR 175.31)

1) In the event of a discrepancy relative to the shipment of hazardous material following its acceptance for transportation aboard an aircraft, notification to the nearest FAA Security Office, by telephone or electronically, shall be made as soon as practicable, and shall provide the following information:

a. Name and Telephone number of the person reporting the discrepancy.
b. Name of the aircraft operator.

c. Specific location of the shipment concerned.
d. Name of the shipper.
e. Nature of discrepancy.
f. Address of the shipper or person responsible for the discrepancy, if known.

2) Packages or baggage which are found to contain hazardous materials subsequent to their being offered and accepted as other than hazardous materials (undeclared) must be reported.

3) Discrepancies involving hazardous materials which are improperly described, certified, labeled, marked, or packaged, in a manner not ascertainable when accepted under 175.30(a), must be reported.

EMERGENCY RESPONSE CONTACT LISTS

National Incident Response Contacts

CONTACT	PHONE NUMBER
Center for Disease Control	1-800-424-9300
National Response Center (NRC)(See Section	1-800-424-8802
For Radioactive Materials:	
Department of Energy (DOE)	202-586-8100
Nuclear Regulatory Commission	301-816-5100

In addition to the contacts listed above, Current local listing of emergency contacts at each station where operations are conducted will be maintained. At a minimum, the list will contain the following telephonic contact information:

Local Incident Response Contacts

Local FAA Security & Hazardous Materials Field Office	702-269-1445 ext. 366
FAA Regional Operations Center (24-hour contact)	800-255-1111 301-725-3300
FAA Flight Standards District Office (FSDO) (Holding FAA Certificate)	702-269-1445
Airport Police	702-261-5630 (911)
Fire Department	702-261-5911 (911)
Ambulance/Hospital	911
State Department of Emergency Services	Bus Hr: 775-687-4240 After Hr: 775-668-2830
Disposal of Hazardous Materials	702-261-5125
For Radioactive Materials:	
State Radiation Control	Bus Hr: 775-687-4240 After Hr: 775-668-2830

NOTES:

- The North American Emergency Response Guidebook is a valuable resource to have for handling HM incidents. http://hazmat.dot.gov/pubs/erg/gydebook.htm
- The Emergency Response Telephone number provided on the Dangerous Goods Declaration (shipping papers) should be utilized as a resource in a HM incident.

PART TWO
HAZARDOUS MATERIALS TRAINING PROGRAM

I. REQUIREMENTS

No crewmember or person shall perform or directly supervise any hazardous material (HM) job function to include acceptance, rejection, handling, storage incidental to transport, packaging of company material (COMAT), or loading of cargo and baggage, unless that person has satisfactorily completed our FAA-approved initial or recurrent hazardous materials program within the past 24 months.

A record of the satisfactory completion of the initial and recurrent hazmat training for each individual within the preceding 3 years shall be maintained. These records will be available at the location where the personnel perform such duties, and will be maintained for as long as the employee is performing HM duties, and for 90 days thereafter. Training records for all direct employees, independent contractors, subcontractors, and any other person who performs or directly supervises a HM function must be available upon request. Records may be maintained electronically and provided on location electronically.

The content of the HM Training Records must include:

1. The individuals name,
2. The most recent training completion date,
3. A description, copy or reference to training materials used to meet the training requirement,
4. The name and address of the organization providing the training, and
5. A copy of the certification issued when the individual was trained, which shows that a test has been completed satisfactorily.

If a person is utilized under an exception (new hire or new job function) in 14 CFR 121.1005(b) or 135.505(b), a record must be maintained in accordance with 14 CFR 121.1007(d) or 14 CFR 135.507(d). Exceptions for persons who work for more than one certificate holder are specified in 14 CFR 121.1005(c) or 135.505(c). An exception for operating at foreign locations is specified in 14 CFR 121.1005(f) or 135.505(f).

II. TRAINING CURRICULUM & REFERENCE TABLE

All materials and regulations used in our training curriculum must be current and valid at the time of the training. Part 121 and 135 hazardous material training requirements can be found online at: **http://ecfr.gpoaccess.gov**

Our training program will satisfy the requirements in the Training Reference Table and 49 CFR Parts 171 through 180. The training required is based on the functions being performed. Each trained person will be able to recognize items that contain or may contain regulated hazardous materials. A method to answer all questions prior to testing regardless of the method of

instruction will be provided. We will certify that each trainee has been satisfactorily tested and verify understanding of the HM regulations and our policies.

TRAINING REFERENCE TABLE

Table 2. Operators That Do Not Transport Hazardous Material – Will NOT Carry Certificate Holders						
Aspects of transport of hazardous materials by air with which they must be familiar, as a minimum (See Note 1)	Shippers (See Note 2)	Operators and ground-handling agent's staff accepting cargo other than hazardous materials (See note 3)	Operators and ground-handling agents staff responsible for the handling, storage, and loading of cargo and baggage	Passenger-handling staff	Flight crew members and load planners	Crew members (other than flight crew members)
General philosophy	x	x	x	x	x	x
Limitations	x	x	x	x	x	x
General requirements for shippers	x					
Classification	x					
List of hazardous materials	x					
General Packing requirements	x					
Labeling and marking	x	x	x	x	x	x
Hazardous materials transport document and other relevant documentation	x	x				
Acceptance procedures						
Recognition of undeclared hazardous materials	x	x	x	x	x	x
Storage and loading procedures						
Pilots' notification						
Provisions for passengers and Crew	x	x	x	x	x	x
Emergency procedures	x	x	x	x	x	x
Note 1 - Depending on the responsibilities of the person, the aspects of training to be covered may vary from those shown in the table.						
Note 2 - When a person offers a consignment of hazmat, including COMAT, for or on behalf of the certificate holder, then the person must be trained in the certificate holder's training. All shippers of hazmat must be trained under 49 CFR. The shipper functions in 49 CFR mirror the training aspects that must be covered for any shipper, including a Will-NOT Carry certificate holder offering hazmat for transport, with the exception of recognition training. Recognition training is a separate FAA requirement in the certificate holder's training program.						

Note 3- When an operator, its subsidiary, or an agent of the operator is undertaking the responsibilities of acceptance staff, such as the passenger handling staff accepting small parcel cargo, the certificate holder, its subsidy, or the agent must be trained in the certificate holder's training program and comply with the acceptance staff training requirements.

NOTE: The extent of training varies for each person depending on the job function they perform. The material shall be covered in such scope and depth as to provide all persons with sufficient knowledge of applicable HM regulations and procedures to safely accomplish their specific duties.

III. ASPECTS OF HAZARDOUS MATERIALS AIR TRANSPORTATION

At a minimum, our hazardous materials training programs will include the following information for each aspect of hazardous materials air transportation.

General Philosophy

- Certificate Holder's Will-NOT Carry Policies and Procedures
- HM Training Program ~ 14 CFR Subpart Z
- Applicable Regulatory Materials
- Overview of 49 CFR Parts 100-185
- Definitions Used in Air Transportation of Hazardous Materials ~ 49 CFR 171.8
- General Transportation Requirements ~ 49 CFR 171.2
- Transport by Aircraft ~ 49 CFR Part 175
- Training Requirements and Recordkeeping ~ 49 CFR 172.700
- Enforcement
- Hazardous Materials Security

Limitations

- Hidden Hazardous Materials
- Hazardous Materials Carried by Passenger or Crew

General Requirements For Shippers

- Shippers Specific Responsibilities and Compliance to Regulations
- Identify and Recognize HM COMAT

-Hazardous Materials Onboard Aircraft ~ Appendix C
-Replacement Components
-Consumable Materials

- Specific HM COMAT Exceptions ~ 49 CFR 175.8
- Facility Storage, Safe Movement and Handling Requirements for HM COMAT

Classification

- Hazardous Materials Classification ~ 49 CFR 172.101, 173.2, and 173.2(a)
- Unacceptable Hazardous Materials ~ 49 CFR 172.101, 173.21, and 175.3

List of Hazardous Materials

- Purpose and Use of the Hazardous Materials Tables ~ 49 CFR 172.101
- Proper Shipping Names ~ 49 CFR 172.101 and 172.202
- Hazard Class (Definitions) ~ 49 CFR 172.101 and 173.50 - 173.144
- UN/ID Numbers ~ 49 CFR 172.101 and 172.202
- Packing Group ~ 49 CFR 172.101 and 172.202

General Packing Requirements

- Shippers Responsibilities ~ 49 CFR 171.2(e) and 171.12
- General Packing Requirements ~ 49 CFR 173.24, 173.24(a), and 173.27
- Packing Instructions and Assignments ~ 49 CFR 172.101 and Part 173
- Small Quantity Exceptions ~ 49 CFR 173.4
- Limited Quantity Exceptions ~ 49 CFR 173.150 – 173.156

Labeling and Marking

- Markings Required on Packages Containing Hazardous Materials ~ 49 CFR Subpart D
- Labels Required on Packages Containing Hazardous Materials ~ 49 CFR Subpart E

Hazardous Materials Transport Document and Other Relevant Documentation

- Shipper's Certification Requirements for Hazardous Materials ~ 49 CFR 172.204
- Shipping Paper Requirements ~ 49 CFR 172.200 and 172.201
- Description of Hazardous Materials Required on Shipping Papers ~ 49 CFR 172.202 and 172.203
- Shipping Papers for Hazardous Materials aboard Aircraft ~ 49 CFR 175.35

Recognition of Undeclared Hazardous Materials

- Hidden Shipment Indicators ~ Appendix A
- Suspicious Cargo and Baggage Awareness
- Hazardous Materials Discrepancy/Incident Reporting ~ 49 CFR 171.15, 171.16, 175.31, and Appendix D

Provisions for Passenger and Crew

- Hazardous Material Exceptions ~ 49 CFR 175.10

Emergency Procedures

- Use of North American Emergency Response Guidebook (Cargo Facility / Ground Handling)
- Use of ICAO Red Book or similar reference (Onboard Aircraft)

APPENDIX A

HIDDEN SHIPMENT INDICATORS

Cargo and baggage that are offered under a general description might have hazards that are not apparent. The Hazardous Materials Table in 49 CFR Part 172 is not complete, and shippers and passengers may not be aware of this. Some of these consignments have caused incidents that could have seriously endangered the safety of the aircraft and/or its passengers.

Please be alert to these possible hazards. Items found containing a hazardous material need to be shipped in accordance with the 49 CFR/ICAO Technical Instructions.

NAME	REMARKS
Aircraft Parts/**COMAT**	May indicate the presence of chemical oxygen generators, flammable liquids/solids, corrosives, compressed gases, radioactive materials in aircraft parts and accessories, or general company materials.
Automobile Parts (car, motor,	May contain cellulose paints, wet batteries,
motorcycle)	shocks/struts with nitrogen, air bag inflators/air bag
	modules, etc.
Breathing Apparatus/SCUBA	May indicate compressed air or oxygen cylinders
Bull (or other animal) Semen	May involve use of refrigerant (e.g., Liquid Nitrogen)
Camping Equipment	May contain flammable liquids, gas, or solids
Chemicals	Often found to be hazardous
Cryogenic (Liquid)	Indicates low temperature, low pressure, or non-
	pressurized gas such as Argon, Helium, Neon, and
	Nitrogen
Cylinders	May indicate compressed gas
Dental Apparatus	May contain hazardous chemicals such as resins or
	solvents
Electrical Equipment	May contain magnetized materials or mercury in
	switch gear and electron tubes
Electrically Powered	May contain wet batteries apparatus (wheelchairs,
	lawn mowers, golf carts, etc.)
Frozen Fruits, Vegetables	May be packed in Dry Ice (Solid Carbon Dioxide)
Household Goods	May contain hazardous materials such as paint,
	aerosols, bleaching powder, etc.
Instruments	May conceal barometers, manometers, mercury switches, rectifier tubes, thermometers containing mercury
Laboratory/Testing	May contain various hazardous chemicals

Machinery Parts	May include hazardous chemicals (adhesives, paints,
	sealants, solvents, etc.)
Medical Supplies/Equipment (Test Kits)	May contain various hazardous chemicals
Pharmaceuticals	May contain various hazardous chemicals
Photo Supplies	May contain various hazardous chemicals
Refrigerators	May contain various hazardous chemicals
Repair Kits	May contain various hazardous materials (adhesives,
	solvents, cellulose paints, organic peroxides, etc.)
Samples for Testing	May contain various hazardous materials (including
	infectious substances)
Swimming Pool Supplies	May contain acid, chlorine
Switches in Electrical Equipment or	May contain mercury
Instrument	
Tear Gas Dispensers	Contains irritating material or pepper gas which is
	forbidden on passenger aircraft
Toys	May be made of celluloid or other flammable material
Tool Boxes	May contain Flammable gases, liquids, adhesives,
	Cleaners, Corrosives, Oxidizers, etc.
Vaccines	May be packed in Dry Ice (Solid Carbon Dioxide)

Note 1: Articles which do not fall within the hazardous materials definitions of 49 CFR and which, in the event of leakage, may cause serious cleanup problems or corrosion to aluminum on a long term basis, must be checked by the shipper to at least ensure that the packaging is adequate to prevent leakage during transportation. These may include brine, powered or liquid dyes, pickled foodstuffs, etc.

Note 2: Magnetized material, as defined in 49 CFR, with a gauss reading of more than 0.00525 is forbidden for air transportation and a package with a reading of 0.00525 or less is not regulated. The ICAO and IATA Regulations regulate magnetized material with a reading between 0.002 gauss and 0.00525 gauss, thus requiring a magnetized material label.

APPENDIX B

DOT CHART Hazardous Materials Marking, Labeling & Placarding Guide

SEE ATTACHED

This DOT CHART is produced by the Pipeline and Hazardous Materials Safety Administration (PHMSA). It can be purchased individually or obtained for Free in their Outreach Training Folder labeled, "HAZARDOUS MATERIALS SAFETY PACK A."

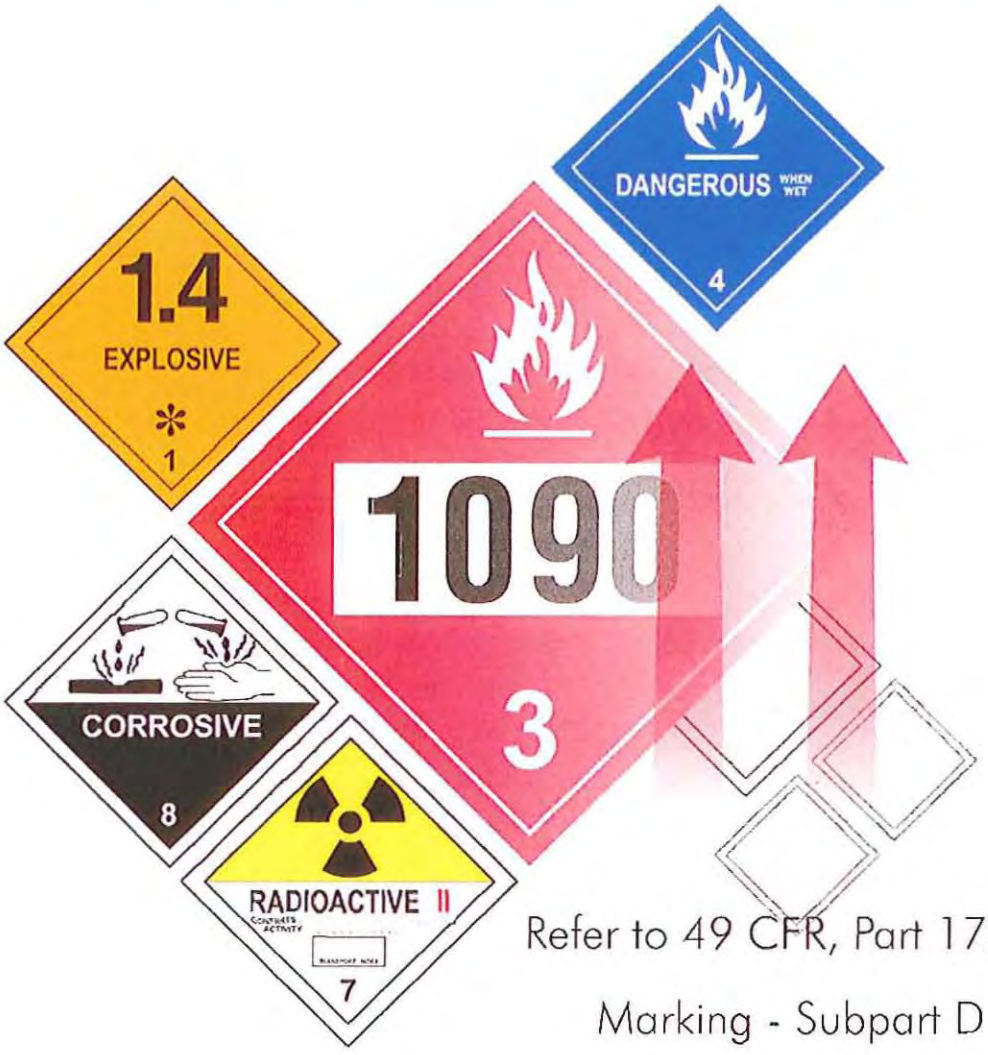
The DOT CHARTs and HAZMAT Pack A's can be ordered on-line at:

https://hazmatonline.phmsa.dot.gov/services/pub_default.aspx

U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration

DOT CHART 13

Hazardous Materials Marking, Labeling and Placarding Guide



Refer to 49 CFR, Part 172:

Marking - Subpart D

Labeling - Subpart E

Placarding - Subpart F

Emergency Response - Subpart G

NOTE: This document is for general guidance only and must not be used to determine compliance with 49 CFR, Parts 100-185.

Hazardous Materials Warning Labels

Actual label size: at least 100 mm (3.9 inches) on all sides

CLASS 1 Explosives: Divisions 1.1, 1.2, 1.3, 1.4, 1.5, 1.6

§172.411

* Include compatibility group letter.

** Include division number and compatibility group letter

CLASS 2 Gases: Divisions 2.1, 2.2, 2.3

§172 405(b), §172 415, §172 416, §172 417

CLASS 3 Flammable Liquid

§172 419

CLASS 4 Flammable Solid, Spontaneously Combustible, and Dangerous When Wet: Divisions 4.1, 4.2, 4.3

§172 420, §172.422, §172 423

CLASS 5 Oxidizer, Organic Peroxide: Divisions 5.1 and 5.2

Organic Peroxide, Transition-2011

§172 426, §172 427

CLASS 6 Poison (Toxic), Poison Inhalation Hazard, Infectious Substance: Divisions 6.1 and 6.2

For Regulated Medical Waste (RMW), an Infectious Substance label is not required on an outer packaging if the OSHA Biohazard marking is used as prescribed in 29 CFR 1910 1030(g) CDC Etiologic Agent label must be used as prescribed in 42 CFR 72 3 and 72 6 A bulk package of RMW must display a BIOHAZARD marking

§172 323, §172 405(c), §172.429, §172.430, §172.432

CLASS 7 Radioactive

§172.436, §172.438, §172.440, §172 441

CLASS 8 Corrosive

§172.442

CLASS 9 Miscellaneous Hazardous Material

§172 446

Subsidiary Risk Label

§172 411

Cargo Aircraft Only

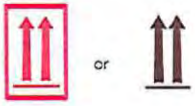
§172 448

Empty Label

§172.450

HAZARDOUS MATERIALS MARKINGS

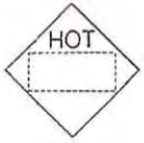
Package Orientation (Red or Black)



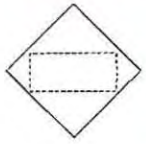
§172.312(a)

§172 317

§173 25(a)(4)



§172 325



§172.332(a)

Fumigant Marking (Red or Black)

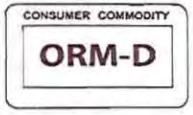
§172 302(g) and §173 9

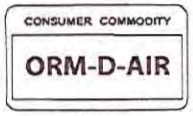
Biological Substances, Category B

§173 199(a)(5)

§172.322

§172.313(a)





§172.316(a)

Keep a copy of the Emergency Response Guidebook handy!

Hazardous Materials Warning Placards

Actual placard size: at least 27 mm (10.8 inches) on all sides

CLASS 1 Explosives

§172.522
§172.523
§172 524
§172 525

* For Divisions 1.1, 1.2, or 1.3, enter division number and compatibility group letter, when required; placard any quantity. For Divisions 1.4, 1.5, and 1.6, enter compatibility group letter, when required; placard 454 kg (1,001 lbs) or more.

CLASS 2 Gases

§172.528
§172.530
§172 532
§172.540

For NON-FLAMMABLE GAS, OXYGEN (compressed gas or refrigerated liquid), and FLAMMABLE GAS, placard 454 kg (1,001 lbs) or more gross weight For POISON GAS (Division 2 3), placard any quantity.

CLASS 3 Flammable Liquid and Combustible Liquid

§172.542
§172 544

For FLAMMABLE, placard 454 kg (1,001 lbs) or more. GASOLINE may be used in place of FLAMMABLE placard displayed on a cargo tank or portable tank transporting gasoline by highway. Placard combustible liquid transported in bulk See §172.504(f)(2) for use of FLAMMABLE placard in place of COMBUSTIBLE. FUEL OIL may be used in place of COMBUSTIBLE on a cargo or portable tank transporting fuel oil not classed as a flammable liquid by highway.

CLASS 4 Flammable Solid, Spontaneously Combustible, and Dangerous When Wet

§172 546, §172 547, §172.548

For FLAMMABLE SOLID and SPONTANEOUSLY COMBUSTIBLE, placard 454 kg (1,001 lbs) or more For DANGEROUS WHEN WET (Division 4 3), placard any quantity.

CLASS 5 Oxidizer & Organic Peroxide

Organic Peroxide, Transition-2011 (rail, vessel, and aircraft) 2014 (highway)

§172 550, §172 552

For OXIDIZER and ORGANIC PEROXIDE (other than TYPE B, temperature controlled), placard 454 kg (1,001 lbs) or more. For ORGANIC PEROXIDE (Division 5 2), Type B, temperature controlled, placard any quantity.

CLASS 6 Poison (Toxic) and Poison Inhalation Hazard

§172 504(f)(10), §172 554, §172.555

For POISON (PGI or PGII, other than inhalation hazard) and POISON (PGIII), placard 454 kg (1,001 lbs) or more For POISON-INHALATION HAZARD (Division 6 1), inhalation hazard only, placard any quantity

CLASS 7 Radioactive

§172.556

Placard any quantity - packages bearing RADIOACTIVE YELLOW-III labels only Certain low specific activity radioactive materials in "exclusive use" will not bear the label, but the radioactive placard is required for exclusive use shipments of low specific activity material and surface contaminated objects transported in accordance with §172 504(e) Table 1 and §173.427(a)(6).

CLASS 8 Corrosive

§172 558

For CORROSIVE, placard 454 kg (1,001 lbs) or more

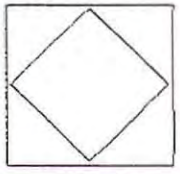
CLASS 9 Miscellaneous Dangerous

§172 560

Not required for domestic transportation A bulk packaging containing a Class 9 material must be marked with the appropriate ID number displayed on a Class 9 placard, an orange panel, or a white square-on-point display

§172 521

A freight container, unit load device, transport vehicle, or rail car which contains non-bulk packages with two or more categories of hazardous materials that require different placards specified in Table 2 may be placarded with DANGEROUS placards instead of the specific placards required for each of the materials in Table 2. However, when 1,000 kg (2,205 lbs) or more of one category of material is loaded at one loading facility, the placard specified in Table 2 must be applied.



§172.527

White square background required for placard for highway route controlled quantity radioactive material and for rail shipment of certain explosives and poisons, and for flammable gas in a DOT 113 tank car (§172.507 and §172.510).

PLACARDS OR ORANGE PANELS

§172.332

and

Appropriate placard must be used.

IDENTIFICATION NUMBER DISPLAYS

MUST BE DISPLAYED ON: (1) Tank Cars, Cargo Tanks, Portable Tanks, and other Bulk Packagings; (2) Vehicles or containers containing 4,000 kg (8,820 lbs) in non-bulk packages of only a single hazardous material having the same proper shipping name and identification number; and (3) 1,000 kg (2,205 lbs) of materials poisonous by inhalation in Hazard Zone A or B. See §172 301(a)(3) and §172.313(c).

Response begins with identification!

General Guidelines on Use of Warning Labels and Placards

LABELS

See 49 CFR, Part 172, Subpart E, for complete labeling regulations.

- The Hazardous Materials Table [§172.101, Col. 6] identifies the proper label(s) for the hazardous material listed.
- Any person who offers a hazardous material for transportation MUST label the package, if required [§172.400(a)]
- Labels may be affixed to packages when not required by regulations, provided each label represents a hazard of the material contained in the package [§172.401]
- The appropriate hazard class or division number must be displayed in the lower corner of a primary and subsidiary hazard label [§172.402(b)].
- For classes 1,2,3,4,5,6, and 8, text indicating a hazard (e.g., "CORROSIVE") is NOT required on a primary or subsidary label. The label must otherwise conform to Subpart E of Part 172 [§172.405]
- Labels must be printed on or affixed to the surface of the package near the proper shipping name marking [§172.406(a)].
- When primary and subsidiary labels are required, they must be displayed next to each other [§172 406(c)].
- For a package containing a Division 6.1, PG III material, the POISON label specified in §172 430 may be modified to display the text PG III instead of POISON or TOXIC. Also see §172.313(d)
- The new ORGANIC PEROXIDE label becomes mandatory on 1 January 2011 and reflects the fact that organic peroxides are highly flammable and eliminates the requirements for a flammable liquid subsidiary label [§172.427]. For information, see §171.14.

PLACARDS

See 49 CFR, Part 172, Subpart F, for complete placarding regulations.

- Each person who offers for transportation or transports any hazardous material subject to the Hazardous Materials Regulations must comply with all applicable requirements of Subpart F [§172.500].
- Placards may be displayed for a hazardous material, even when not required, if the placarding otherwise conforms to the requirements of Subpart F of Part 172 [§172.502(c)].
- For other than Class 7 or the DANGEROUS placard, text indicating a hazard (e.g., "FLAMMABLE") is not required. Text may be omitted from the OXYGEN placard only if the specific ID number is displayed on the placard [§172.519(b)(3)]
- For a placard corresponding to the primary or subsidiary hazard class of a material, the hazard class or division number must be displayed in the lower corner of the placard
- Any bulk packaging, freight container, unit load device, transport vehicle or rail car containing any quantity of material listed in Table 1 must be placarded [§172.504]
- When the gross weight of all hazardous materials in non-bulk packages covered in Table 2 is less than 454 kg (1,001 lbs), no placard is required on a transport vehicle or freight container [§172 504(c)].
- Notes See §172.504(f)(10) for placarding Division 6 1, PG III materials.
- Placarded loads require registration with USDOT. See §107.601 for registration regulations
- The new ORGANIC PEROXIDE placard becomes mandatory 1 January 2011 for transportation by rail, vessel, or aircraft and 1 January 2014 for transportation by highway. The placard will enable transport workers to readily distinguish peroxides from oxidizers [§172.552]. For information, see §171.14.

Placarding Tables

[§172.504(e)]

TABLE 1
(Placard any quantity)

Category of material (Hazard Class or division number and additional description, as appropriate)	Placard name
1.1	EXPLOSIVES 1.1
1.2	EXPLOSIVES 1.2
1.3	EXPLOSIVES 1.3
2.3	POISON GAS
4.3	DANGEROUS WHEN WET
5.2 (Organic peroxide, Type B, liquid or solid, temperature controlled)	ORGANIC PEROXIDE
6.1 (materials poisonous by inhalation (see §171.8 of this subchapter))	POISON INHALATION HAZARD
7 (Radioactive Yellow III label only)	RADIOACTIVE[1]

[1] RADIOACTIVE placard also required for exclusive use shipments of low specific activity material and surface contaminated objects transported in accordance with §173.427(a)(6).

TABLE 2
(Placard 1,001 lbs or more)

Category of material (Hazard Class or division number and additional description, as appropriate)	Placard name
1.4	EXPLOSIVES 1.4
1.5	EXPLOSIVES 1.5
1.6	EXPLOSIVES 1.6
2.1	FLAMMABLE GAS
2.2	NON-FLAMMABLE GAS
3	FLAMMABLE
Combustible Liquid	COMBUSTIBLE
4.1	FLAMMABLE SOLID
4.2	SPONTANEOUSLY COMBUSTIBLE
5.1	OXIDIZER
5.2 (Other than organic peroxide, Type B, liquid or solid, temperature controlled)	ORGANIC PEROXIDE
6.1 (Other than materials poisonous by inhalation)	POISON
6.2	(None)
3	CORROSIVE
9	Class 9 (see §172.504(f)(9))
ORM-D	(None)

Inhalation Hazard Materials

[§172.313, §172.540, §172.555]

Materials which meet the inhalation toxicity criteria have additional "communication standards" prescribed by the HMR. The words "Poison-Inhalation hazard" or "Toxic-Inhalation hazard" and the words "Zone A", "Zone B", "Zone C", or "Zone D" for gases or "Zone A" or "Zone B" for liquids, as appropriate, shall be entered on the shipping paper as required by §172.203(m). Packagings must be marked "Inhalation Hazard" or, alternatively, when the words "Inhalation Hazard" appear on the label or placard, the "Inhalation Hazard" marking is not required on the package. Transport vehicles, freight containers, portable tanks and unit load devices that contain a poisonous material subject to the "Poison-Inhalation Hazard" shipping description, must be placarded with a POISON INHALATION HAZARD or POISON GAS placard, as appropriate. This shall be in addition to any other placard required for that material [§172.504].

For complete details, refer to one or more of the following:

- Code of Federal Regulations, Title 49, Transportation, Parts 100-185. [All modes]
- International Civil Aviation Organization (ICAO) Technical Instructions for the Safe Transport of Dangerous Goods by Air. [Air]
- International Maritime Dangerous Goods (IMDG) Code. [Water]
- Transportation of Dangerous Goods Regulations of Transport Canada. [Rail and Highway]

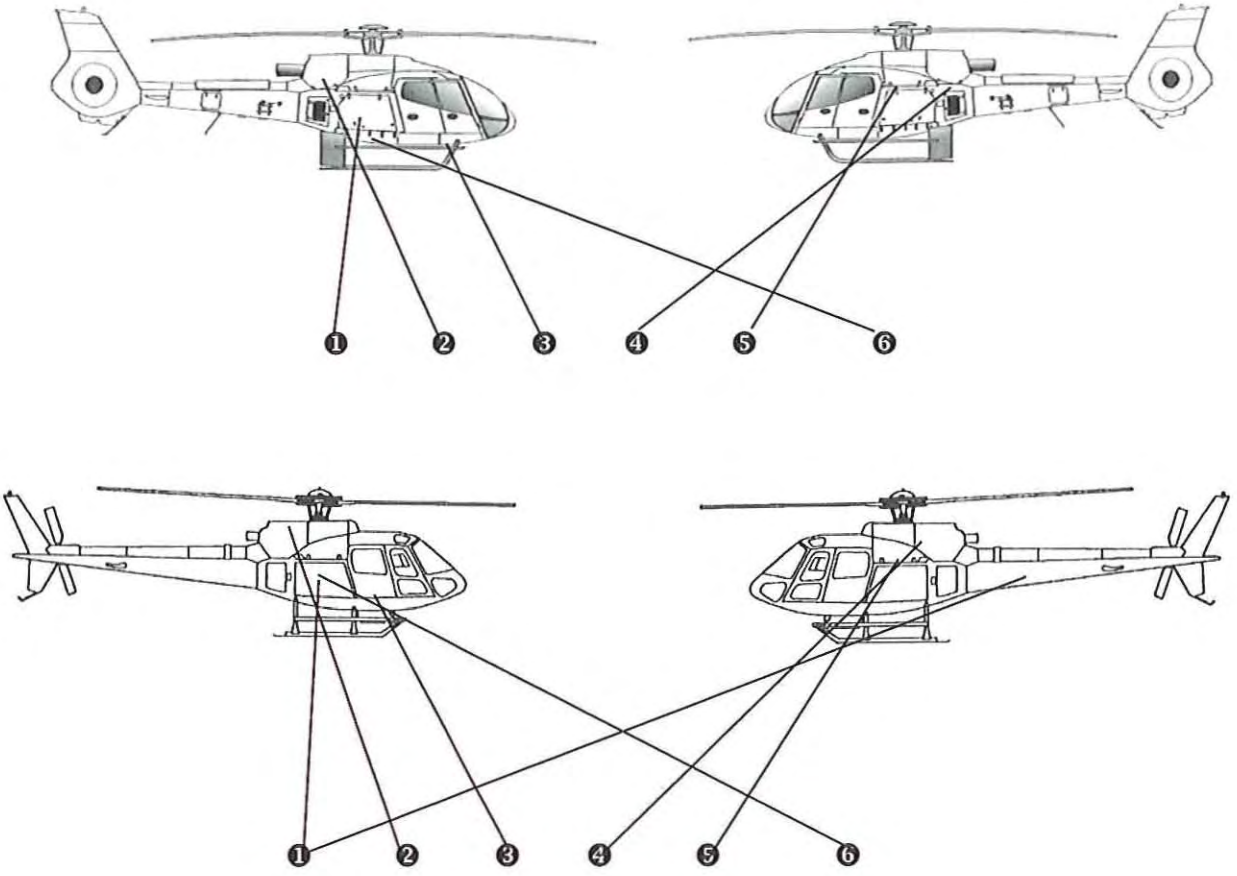
U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration

Copies of this Chart may be obtained by contacting.

USDOT/PHMSA/OHMIT/PHH-50
1200 New Jersey Avenue, SE
Washington, D.C. 20590
or
Phone: 202-366-2301
Email: training@dot.gov
Website: http://hazmat.dot.gov

PHH50-0093-0707

APPENDIX C
Hazardous Materials Onboard Aircraft



1. Batteries, Aircraft
2. Engine Oil (as hazardous waste)
3. Fire Extinguishers
4. Fuel
5. Hydraulic Fluid, Reservoirs (as hazardous waste)
6. Refrigerant (air conditioning)

APPENDIX D

Hazardous Materials Incident Report: DOT Form F 5800.1 (01-2004)

Includes Guide for Preparing Hazardous Materials Incidents Reports

SEE ATTACHED

DOT Form F 5800.1 can now be reported on-line to the DOT. The form can then be printed out and faxed, mailed, or emailed to your local FAA HM Field Office meeting the requirements of air incidents in 49 CFR 171.16.

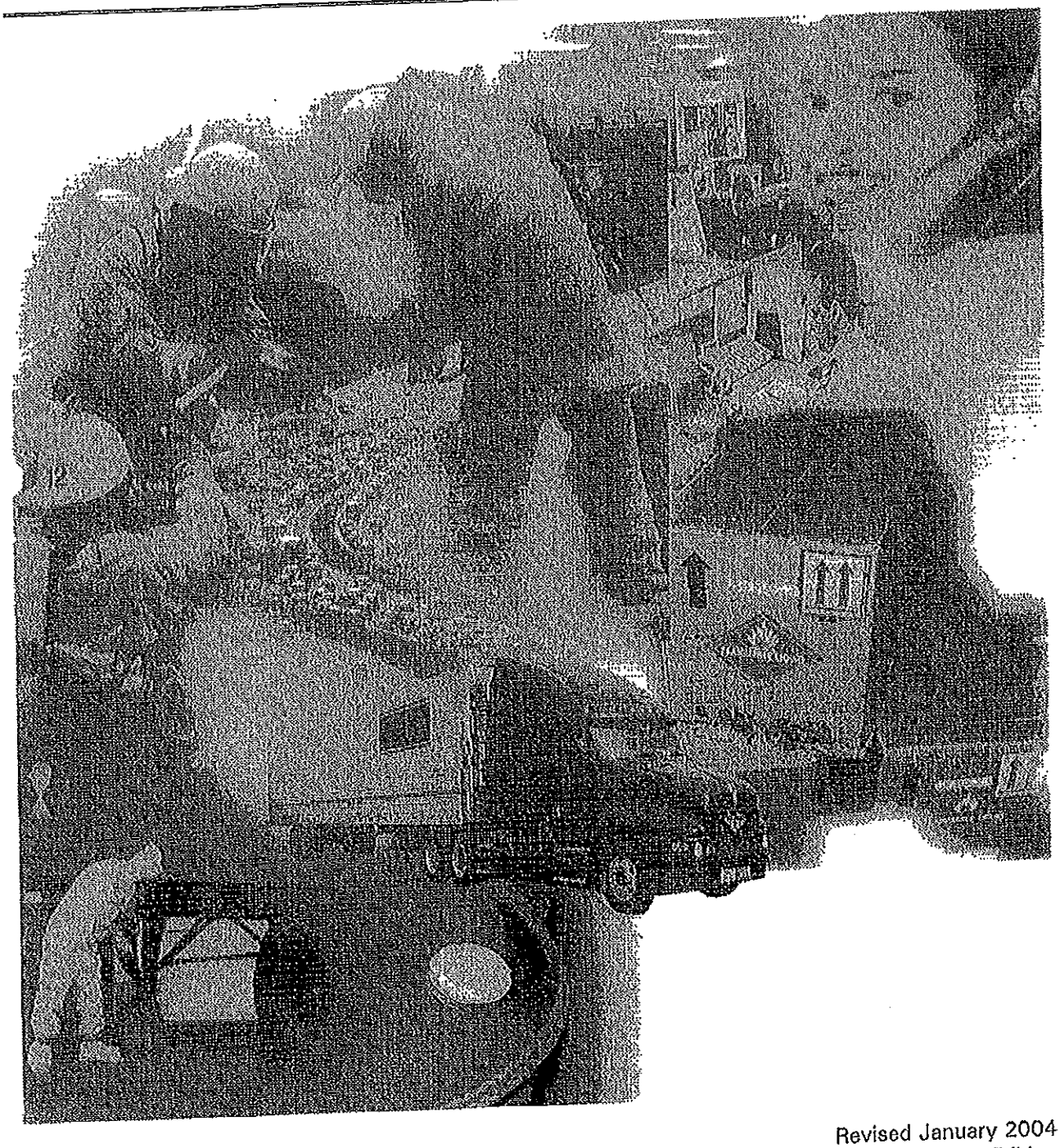
For assistance in completing the Incident Report Form 5800.1 or any questions regarding the incident reporting requirements, please call the Hazardous Materials Information Center at 800-467-4922. You may also send your question in by email (hmis@dot.gov).

http://hazmat.dot.gov/enforce/spills/spills.htm

U.S. Department
of Transportation

**Research and
Special Programs
Administration**

Guide for Preparing Hazardous Materials Incidents Reports



Revised January 2004
Supersedes Previous Edition

U.S. Department
of Transportation
**Research and
Special Programs
Administration**

Hazardous Materials Incident Reporting

CONTENTS

DHM50-0038-0604

Overview

Hazardous Materials Incident Report

Department of Transportation Form F 5800.1

What Federal Regulation Requires Me To Submit the Report?

The Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) require that certain types of incidents be reported to the Research and Special Programs Administration (RSPA). Section 171.15 of the HMR requires an immediate telephonic report (within 12 hours) of certain types of hazardous materials incidents and a follow-up written report. Section 171.16 requires a written report for certain types of hazardous materials incidents within 30 days. Each type of report is explained below. (The full text of these sections is at the end of the instructions.)

What is the Purpose of the Report?

The information you are providing in this report is fundamental to hazardous material transportation risk analysis and risk management by government and industry. It allows us to better understand the causes and consequences of hazardous material transportation incidents. The data is used to identify trends and provide basic program performance measures. It helps to demonstrate the effectiveness of existing regulations and to identify areas where changes should be considered. It also assists all parties, including industry segments and individual companies, in understanding the types and frequencies of incidents, what can go wrong, and possible measures that would prevent their recurrence. Your accurate and complete description of incidents can make a significant contribution to continual safety improvement through better regulations, cooperative partnerships, and individual efforts.

Who Must Complete the Report?

Any person in possession of a hazardous material during transportation, including loading, unloading and storage incidental to transportation, must report to the Department of Transportation (DOT) if certain conditions are met. This means that when the conditions apply for completing the report, the entity having physical control of the shipment is responsible for filling out and filing DOT Form F 5800.1.

For example, if a shipper is carrying hazardous material, the consignee is unloading the material and there is an incident involving this material, the consignee is responsible for filling out and filing the form. However, if the consignee is unloading the hazardous material and causes a hazardous materials incident involving a consignment intended for someone else, the shipper is responsible for filling out and filing the form.

What Definitions Should I Know In Order to Complete the Report?

In order to accurately complete the report, you should be familiar with the following terms. A complete list of definitions is contained in § 171.8.

Bulk packaging—a packaging, other than a vessel or a barge, including a transport vehicle or freight container, in which hazardous materials are loaded with no intermediate form of containment and which has:

(1) A maximum capacity greater than 450 liters (119 gallons) as a receptacle for a liquid;
(2) A maximum net mass greater than 400 kilograms (822 pounds) and a maximum capacity greater than 450 liters (119 gallons) as a receptacle for a solid; or
(3) A water capacity greater than 454 kilograms (1,000 pounds) as a receptacle for a gas as defined in § 173.115.

Cargo tank—a bulk packaging which is:

(1) A tank intended primarily for the carriage of liquids or gases and includes appurtenances, reinforcements, fittings, and closures;
(2) Is permanently attached to or forms a part of a motor vehicle, or is not permanently attached to a motor vehicle but which, by reason of its size, construction, or attachment to a motor vehicle, is loaded or unloaded without being removed from the motor vehicle; and
(3) Is not fabricated under a specification for cylinders, intermediate bulk containers, multi-unit tank car tanks, portable tanks, or tank cars.

Hazardous material—a substance or material that has been determined to be capable of posing an unreasonable risk to health, safety, and property when transported in commerce, and that has been so designated. The term includes hazardous substances, hazardous wastes, marine pollutants, elevated temperature materials, materials designated as hazardous under the provisions of § 172.101, the Hazardous Materials Table (HMT), and materials that meet the defining criteria for hazard classes and divisions in Part 173.

Hazardous substance—a material, including its mixtures and solutions, that—

(1) Is listed in Appendix A to § 172.101;
(2) Is in a quantity, in one package, which equals or exceeds the reportable quantity (RQ) listed in Appendix A to § 172.101; and
(3) When in a mixture or solution—
  (i) For radionuclides, conforms to paragraph 7 of Appendix A to § 172.101.
  (ii) For other than radionclides, is in a concentration by weight which equals or exceeds the concentration corresponding to the RQ of the material, as shown in Table 1.

The term *hazardous substance* does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance

ble 1 Reportable Quantities.

RQ pounds (kilograms)	Concentration by Weight	
	Percent	PPM
5000 (2270)	10	100,000
1000 (454)	2	20,000
100 (45.4)	0.2	2,000
10 (4.54)	0.02	200
1 (0.454)	0.002	20

in Appendix A to § 172.101, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas useable for fuel (or mixtures of natural gas and such synthetic gas).

Hazardous waste—any material that is subject to the Hazardous Waste Manifest Requirements of the U.S. Environmental Protection Agency specified in 40 CFR Part 262.

arine pollutant—a material that is ted in Appendix B to § 172.101 (also see § 171.4) and, when in a solution or mixture of one or more marine pollutants, is packaged in a concentration that equals or exceeds:

(1) Ten percent by weight of the solution or mixture for materials listed in Appendix B; or
(2) One percent by weight of the solution or mixture for materials that are identified as severe marine pollutants in Appendix B.

Undeclared hazardous material—means a hazardous material that is:

(1) Subject to any of the hazard communication requirements in subparts C (Shipping Papers), D (Marking), E (Labeling), and F (Placarding) of Part 172 of this subchapter, or an alternative marking requirement in Part 173 of this subchapter (such as §§ 173.4(a)(10) and 173.6(c)); and
(2) Offered for transportation in commerce without any visible indication to the person accepting the hazardous material for transportation that a hazardous material is present, on either an accompanying shipping document, or the outside of a transport vehicle, freight container, or package.

Unintentional release—the escape of a hazardous material from a package on an occasion not anticipated or planned. This includes releases resulting from collision, package failures, human error, criminal activity, negligence, improper packing, or unusual conditions such as the operation of pressure relief devices as a result of over-pressurization, overfill, or fire exposure. It does not include releases, such as venting of packages, where allowed, and the operational discharge of contents from packages.

Additionally, for purposes of reporting on this form, the following definitions should be used:

Lading retention system—a lading retention system consists of those items or equipment that provide containment of hazardous materials at some point during transportation, including loading and unloading. The cargo tank shell, associated piping, and valves are an example of a lading retention system. Dents or damage to a tank requiring repair to an accident protection system guarding the tank are examples of incidents that must be reported. Paint chips and scratches to either the tank or the accident protection system are examples of incidents that do not require reporting.

Major transportation artery—a highway, main road or secondary road but not a side street or dirt road. In the case of rail, any rail line except a rail spur.

When Must I Submit a Written Report (DOT Form F 5800.1)?

Under § 171.16, you must submit a written report within 30 days after any of the following:

- An incident that was reported by telephonic notice under § 171.15;
- An unintentional release (see definitions) of a hazardous material during transportation including loading, unloading and temporary storage related to transportation;
- A hazardous waste is released;
- An undeclared shipment with no release is discovered; or
- A specification cargo tank 1,000 gallons or greater containing any hazardous materials that—
  - (1) received structural damage to the lading retention system or damage that requires repair to a system intended to protect the lading retention system, and
  - (2) did not have a release.

To clarify the requirement for a report based on structural damage to a specification cargo tank, Table 2 illustrates some examples.

When Is a Report Not Required?

You are not required to report a release of a hazardous material if ALL of the following apply:

- The shipment is not being offered for transportation or being transported by air;
- None of the criteria in § 171.15(a) applies;
- The material is not a hazardous waste;
- The material is properly classed as an ORM-D, or a Packing Group III material in Class or Division 3, 4, 5, 6.1, 8, or 9;
- Each package has a capacity of less than 20 liters (5.2 gallons) for liquids or less than 30 kg (66 pounds) for solids;
- The total aggregate release is less than 20 liters (5.2 gallons) for liquids or less than 30 kg (66 pounds) for solids;
- The material does not meet the definition of an undeclared hazardous material in § 171.8; and
- The shipment is an undeclared material discovered in an air passenger's checked or carry-on baggage during the airport screening process.

Table 2 Examples to Clarify When to Report Structural Damage to a Specification Cargo Tank.

Incident Report Required	No Incident Report Required
Damage to an outlet valve that affects seating and requires replacement.	Handle broken or knocked off valve - but otherwise undamaged.
Serious damage that, if worse, could have resulted in the loss of the contents of the cargo tank. Damage to outlet lines that contain hazardous materials during transportation is in this category.	Serious damage that, even if worse, would not have resulted in the loss of the contents of the cargo tank. Damage to outlet lines that are normally not charged during transportation is in this category.
Cargo tank damage that requires professional inspection or recertification to ensure it is capable of meeting requirements.	Minor damage that obviously will not affect continuation of the cargo tank in service.
Cargo tank damage that requires immediate or subsequent repair because of questions about cargo tank integrity.	Cargo tank damage that requires repair for cosmetic reasons only.

Also, you are not required to report releases of minimal amounts of material (i.e., a pint or less) released from the manual operation of seals of pumps, compressors, or valves, during the connecting or disconnecting of loading and unloading lines, or, for materials for which venting is authorized, from vents, provided these releases do not result in property damage or trigger any of the telephonic notifications requirements found in § 171.15.

When Must I Make a Telephonic Report?

Under § 171.15, you must provide **telephone notice within 12 hours** after the incident occurs when one of the following conditions occurs during the course of transportation and is a direct result of the hazardous material:

- A person is killed;
- A person receives an injury requiring admittance to a hospital;
- The general public is evacuated for one hour or more;
- One or more major transportation arteries or facilities are closed for one hour or more;
- The operational flight plan or routine of an aircraft is altered;
- Fire, breakage, spillage or suspected radioactive contamination occurs involving a radioactive material;
- Fire, breakage, spillage or suspected contamination occurs involving an infectious substance other than a diagnostic specimen or regulated medical waste;
- There is a release of a marine pollutant in a quantity exceeding 450 liters (119) gallons for liquids or 400 kilograms (882 pounds) for solids; or
- A situation exists of such a nature that in the judgment of the person in possession of the hazardous material, it should be reported to DOT's National Response Center (NRC) even though it does not meet the above criteria.

You may decide that the situation should be reported even though it does not meet any of the above criteria. Make sure that you request the NRC report number when you make your telephonic report.

What Telephone Number Do I Call to Make an Immediate Notification of a Hazardous Materials Incident?

You must call 800-424-8802 (toll-free) or 202-267-2675 (toll-call) to make a telephonic incident report. This is the number to the NRC. This call must be made within 12 hours of the events that trigger this requirement. If the incident involves an infectious substance, you may notify the Director, Center for Disease Control and Prevention (CDC), U.S. Public Health Service, Atlanta, Georgia, toll-free at 800-232-0124. If a discrepancy of a shipment intended for air is discovered following its acceptance aboard aircraft, notify the nearest Federal Aviation Administration Civil Aviation Security Office as soon as practical.

How Long Do I Have to Submit the Written Report?

You must submit your written report within **30 days of discovery of the incident**, § 171.16(a).

Am I Required to Update the Information in the Report?

Yes. You must use DOT Form F 5800.1 and check the "A supplemental (follow-up) report" box on question #2 to provide additional information after the initial report. You are required to provide updates for up to one year after the initial filing if more information is gained or new developments arise concerning the following, for example:

- A death results from injuries caused by a hazardous material;
- The person responsible for preparing the original report learns that there is a misidentification of hazardous material or package information;

- Damage or loss or related costs that were not known at the time the report was filed become known; or
- Revised estimates of damages, losses, and related costs result in a change of $25,000 or more, or 10% of the original cost estimates, whichever is greater, even if the original estimate was under $500.

How and Where Do I Submit My Completed Report?

- You can mail paper copies of the report to the Information Systems Manager, U.S. Department of Transportation, Research and Special Programs Administration, Office of Hazardous Materials Safety, DHM-63, Washington, DC 20590-0001; or
- You can submit the report online at http://hazmat.dot.gov.

How Long Must I Keep a Copy the Report?

You must keep a copy of each report or an electronic image of the report for two years after the date you submit it to RSPA (§ 171.16(b)(3)).

Where Must I Keep a Copy of the Report?

The report must be accessible through your company's principal place(s) of business. You must be able to make the report available upon request to authorized representatives or a special agent of the Department within 24 hours of such a request (§ 171.16(b)(3)).

How Can I Get a Blank Copy of the DOT Form F 5800.1?

There are a variety of sources for obtaining the DOT Form F 5800.1. Please note that you are allowed to make unlimited photocopies of the form and distribute them.

- You may obtain limited copies of the form from the Information Systems Manager at the above address.
- You may download a copy of the form from our website at http://hazmat.dot.gov/spills.htm
- Our Fax on Demand service has copies of the instructions and the form. Call 800-467-4922 and choose the Fax on Demand option #2.

How Long Does It Take To Complete the Report?

RSPA anticipates that it will take you approximately 1.6 hours to complete this report. This estimate includes the time it will take you to review the instructions, search your existing data sources for information, gather the required data, and complete and review the report.

How Can I Comment on the Length of Time Needed to Complete the Report or on the Amount of Information Required in the Report?

You can send your comments on the report, and any suggestions you have for reducing the amount of time needed to complete the report, to the following address:

(1) Information Systems Manager, U.S. Department of Transportation, Research and Special Programs Administration, Office of Hazardous Materials Safety, DHM-63, Washington, DC 20590-0001.

Please verify that your information is accurate. Although the required information is generally available at the time of the incident, you may need to do some additional investigation in order to obtain all of the facts pertaining to deaths, injuries or damage amounts. If you submit complete and accurate information at the time you file the report, it will decrease the chance of your having to supply missing information to DOT at a later date. RSPA may follow up on incomplete forms.

Instructions

Completing DOT Form F 5800.1

Please print. Fill in all applicable blanks accurately to the best of your ability.

Part I: Report Type

(1) *This is to report:* Check the box that describes why you are filling out this form. This will normally be "A) A hazardous material incident." If you are reporting an undeclared shipment with no release, check the corresponding box, "B)." If you are reporting an incident involving a cargo tank motor vehicle containing a hazardous material that received structural damage to the lading retention system that may affect its ability to retain lading but does not release a hazardous material, check that appropriate box, "C)."

(2) *Indicate what type of report this is:* If this is an initial report, check the "Initial report" box. If this is a follow-up to a previous report, check the "A supplemental (follow-up) report" box. If you are using additional pages, check the "Additional Pages" box.

Part II: General Incident Information

(3), (4) Date & *Time of Incident:* Enter the date and time the incident occurred. If you do not know the actual date and time, give the date and time you discovered the incident. Use 24-hour time for the incident time (e.g., "2400" for midnight, "1200" for noon, "0747" for 7:47 a.m., "2115" for 9:15 p.m.).

(5) *Enter National Response Center Report Number:* If this incident was reported to the NRC, fill in the report number NRC assigned to the incident.

(6) *If you submitted a report to another Federal DOT agency, enter the agency and report number:* If you were required to fill out a report for another federal agency such as the Federal

Railroad Administration (FRA) or the Federal Motor Carrier Safety Administration (FMCSA) for this incident, please include the agency and report number. This will facilitate our combination of information.

(7) *Location of Incident:* Enter the geographic location of the incident (city, county, state, and zip code). If you do not know the actual location where the incident occurred, give the location where it was discovered. If the incident occurred at an airport or rail yard, include the name of the facility. If the incident occurred on a body of water, include the name and/or river mile. If you do not know the street address, or if the incident occurred on a highway, include a description such as "On I-70, mile marker 240."

(8) *Mode of Transportation:* Enter the code that corresponds to the mode of transportation in which the incident occurred or was discovered. If the incident occurred or was discovered in an in-transit storage area (e.g., a terminal or warehouse), check the box that corresponds to the mode by which the package was last transported.

(9) *Transportation Phase:* Enter the code that describes where the incident occurred in the transportation system. In transit means the incident occurred or was first discovered while the package was in the process of being transported. In-transit storage is storage incidental to transportation, such as at a terminal waiting for the next leg of transportation.

(10) *Carrier/Reporter:* Carrier/Reporter: Provide the name, street address, Federal DOT number (if applicable), and hazmat registration number of the carrier or the entity who is reporting the incident (if other than a carrier). The entity in physical possession of the material when the incident occurred or was discovered must report the incident.

(11) *Shipper/Offeror:* Enter the information about the person or entity that originally offered for transportation the material or package involved in the incident.

(12) *Origin:* Enter the origin of the shipment if the address is different than the shipper/offeror information entered in item #11.

(13) *Destination:* Enter the final destination of the shipment involved in the incident.

(14) through (19):

Hazardous Material Description: Enter the proper shipping name, technical or trade name, hazard class or division, ID number, packing group, and amount of material released. All of this information, except the amount of material released, can be found on the shipping papers that accompany the shipment, § 172.202. When indicating the amount of material released, include units of measurements (examples: 115 gallons, 69 tons).

(20) *Was the material shipped as a hazardous waste?* Check the "Yes" box if the material meets the definition of a hazardous waste in § 171.8 (requires an EPA Uniform Hazardous Waste Manifest). Include the EPA Manifest number.

(21) *Is this a Toxic by Inhalation (TIH) material?* If the material involved in the incident meets the definition of a Toxic by Inhalation material in § 173.132, check the "Yes" box and enter the Hazard Zone in the space provided.

(22) *Was the material shipped under an Exemption, Approval, or Competent Authority Certificate?* If the shipment was shipped under an exemption, an approval, or a Competent Authority Certificate, check the "Yes" box and provide the appropriate assigned number.

(23) *Was this an undeclared hazardous materials shipment?* If this material was not indicated in any way to be a hazardous material even though it was required to be described as such on a shipping paper, or if the material would normally be excepted from the shipping paper requirements (such as a small quantity material) and does not have the required markings, it is considered an undeclared hazardous material shipment. Check the appropriate box.

Part III: Packaging Information

(24) *Packaging Type:* Check the box that corresponds to the type of packaging involved in the incident. If more than one packaging type was involved in an incident, reproduce Part III of the form and fill out this section for each of the packaging types. For example, if three different packaging types were involved in an incident, fill out a separate Part III for each packaging type. If the type of packaging is not represented, check the "Other" box and enter a brief description such as "non-specification bulk bin."

(25) *Enter the appropriate failure codes (found at the end of the instructions):* Enter the codes that describe what failed on the packaging, how the packaging failed, and the cause(s) of the failure. Be sure to enter the codes from the list that corresponds to the particular packaging types checked above (#24). Enter the most important failure point in line 1. If there is a second failure point, enter in line 2. If there are more than two failure points, provide additional information in this format in Part VI. The following explains the content of each line:

What Failed: You can enter up to 2 "What Failed" codes to describe the part of the packaging that fails and was the immediate cause of the release. Often, on a simple

Table 3 Non-bulk and IBC Packaging Identification Codes.

Non-Bulk Packaging

Outer Packaging

Type	Material	Head Type
1 Drum	A Steel	1 Non-removable
2 Wooden Barrel	B Aluminum	2 Removable
3 Jerrican	C Natural Wood	
4 Box	D Plywood	
5 Bag	F Reconstituted Wood	
6 Composite Packaging	G Fiberboard	
7 Pressure receptacle	H Plastic	
	L Textile	
	M Paper, multiwall	
	N Metal other than Steel or aluminum	
	P Glass, porcelain, or stoneware	

Inner Packaging

1 Bottle	A Metal (any type)	
2 Can	B Glass, Porcelain, or stoneware	
3 Box	C Plastic	
4 Bag	D Fiberboard or cardboard	
5 Cylinder	E Wood (any type)	

IBC Packaging Identification Codes

Material of Construction

Metal	3 Composite	5 Wooden
2 Plastic	4 Fiberboard	6 Flexible

packaging, only one code will be required. On more complex packaging, additional entries will help identify where that failure occurred. The first entry should designate the specific point of failure, followed by entries that help identify where that failure occurred. For instance, a deteriorated gasket on a pipe flange on the liquid line would have failure code 121 for gasket entered first and failure code 118 for flange entered second.

How Failed: Enter the "Failure" code that describes how the corresponding part of the packaging failed. The primary way the packaging failed should be entered first.

Cause(s) of Failure: Enter the "Cause of Failure" code that describes what caused the corresponding part of the packaging to fail in the way it did. The most probable or fundamental cause of failure should be entered first.

If none of the codes on the list fit exactly, use the closest matches and provide additional detail in Part VI. Also, if you believe a better set of codes would be more descriptive of what failed, how it failed, and the causes of failure, suggest them in Part VII.

(26a) *Provide the complete packaging identification markings, if available:* Every specification packaging, UN or DOT, has a packaging identification printed or stamped on it or on a plate attached to the packaging. Examples are provided on the form.

(26b) *For Non-bulk, IBC, or non-specification packaging:* Only fill out 26b if the marking is incomplete, destroyed, or unknown. Fill in the Outer and Inner packaging type and Material of Construction information, as appropriate. If the packaging is non-bulk or Intermediate Bulk Container (IBC), use the codes in Table 3 to enter the number or letter that applies for either non-bulk or IBC packaging. For non-bulk, IBC or non-specification packaging provide a *description* of the packaging in the space(s) provided.

(27) *Describe the package capacity and the quantity:* Enter the total capacity of the inner and outer package. Also enter the actual amount of hazardous material that was shipped in the package, the number of packages in the shipment, and the number of packages that failed. Please include the units of measurement (liter, gallons, pounds, cubic feet, etc.)

(28) *Provide package construction and test information, as appropriate:* In the case of Non-bulk packagings or IBCs enter the name of the packaging manufacturer or the symbol of the manufacturer *only if* complete identification markings were not provided in #26b. Enter the date of manufacture and the serial number, if applicable. Enter the last test date if the packaging requires periodic testing. Also include the design pressure, shell thickness, head thickness, and service pressure if the failed packagings are of the type indicated in parenthesis after each question. If the packaging contained a valve, or other device that failed and resulted in a hazardous material release, enter the valve or device type, manufacturer (if present and legible), and model number (if present and legible).

(29) *If the package is for Radioactive Materials, complete the following:* Complete this question *only* if a radioactive material was involved. Indicate the packaging category, the packaging certification, certification number, and which nuclides were present, the transportation index (TI), activity of the nuclides, and the criticality safety index.

Part IV: Consequences

(30) *Result of Incident:* Check all boxes that describe what occurred during the incident or as a result of the incident. For example, in a situation where a truckload of 55 gallon drums of corrosive liquids overturns resulting in a release that contaminates a nearby wetlands and stream the boxes "Spillage," "Material Entered Waterway/Storm Sewer," and "Environmental Damage" may apply.

(31) *Emergency Response:* Check all boxes that correspond with any emergency response and cleanup crews that participated in resolving the incident. If a fire crew, EMS, or police unit responded to the incident, include the report number.

(32) *Damages:* You are required to provide information on estimated damages if your damages exceed $500.00. This figure includes the cost of the material lost, property damage, vehicle damage, response costs, and clean-up costs. If you do not know these amounts at the time you complete the report, or the actual costs are revised by more than $25,000, you must submit a follow-up report after you determine the amounts. The following definitions explain each of the costs:

Material Loss: Enter the value of material released and unrecoverable. Base this entry on the amount of material released multiplied by the unit value (e.g., price per gallon or price per pound) as listed on the shipper's invoice. If the invoice is not available, estimate the cost per unit using the shipper's basis.

Carrier Damage: Enter the total value of damage incurred by the carrier. Major components include costs to repair the damaged vehicle and costs resulting from damage to cargo. If the vehicle is declared "totaled," enter the insured value of the vehicle. This entry should not include damage to other property or to vehicles owned by other persons.

Property Damage: Enter the total value of costs resulting from damage to the property of others involved in the incident. These include: repair and replacement costs of other vehicles; repair and replacement costs to buildings and other fixed facilities; and restoration of open land beyond decontamination and cleanup.

Response Cost: Enter the total value of response costs. Response costs are those costs incurred immediately after the incident, and include local emergency response from police and fire departments and emergency response teams, as well as costs incurred by the responsible party. Response costs also include costs to contain the hazardous material released.

Remediation/Cleanup Cost: Enter the total value of the cost to cleanup and remediate the site. Cleanup costs are those costs incurred to collect, transport, and ultimately dispose of all material collected during the response phase. Remediation costs are those costs incurred to restore the incident scene to its pre-incident state, and could include excavation, disposal and replacement of contaminated soil, pumping, treatment and re-injection of contaminated groundwater, or absorption and disposal of hazardous material released into surface water.

(33a) *Did the hazardous material cause or contribute to a human fatality?* If a person was fatally injured by contact with the hazardous material or its vapors or by a fire or explosion that resulted from the hazardous material, check the "Yes" box and enter the number of fatalities that resulted directly from the hazardous material.

(33b) *Were there human fatalities that did not result from the hazardous material?* If the fatalities were not caused directly by the hazardous material, check the "Yes" box and enter the number of fatalities. An example: if a passenger car collided with a cargo tank carrying gasoline and the automobile driver was killed due to the collision, then the fatality was *not* caused by the hazardous material released. If, however, the accident resulted in the release of gasoline from the cargo tank and a resulting fire killed the automobile driver, then the fatality *was* caused by the hazardous material.

(34) *Did the hazardous material cause or contribute to a personal injury?* If a person was injured by contact with the hazardous material or its vapors or by a fire or explosion that resulted from the hazardous material, check the "Yes" box and enter the number of persons injured by the hazardous material.

Hospitalized means *admitted* to a medical facility, not treated and released from a facility, such as a hospital emergency room, where the person was never admitted to the hospital proper. Non-hospitalized individuals are those who may have received attention from medical personnel on-site or at a facility (including hospital emergency room), but were not admitted to a medical facility. Indicate the number of injured employees, emergency responders (firefighters, police, medics, etc.) and members of the general public.

(35) *Did the hazardous material cause or contribute to an evacuation?* If the incident required the evacuation or removal of persons from a specific area because of possible or actual contact with the hazardous materials involved in the incident, check the "Yes" box. Separately specify the numbers of individuals from the general public evacuated and number of employees of the facility or workers in the area that were evacuated. Also provide the total number of individuals evacuated. Indicate the duration of the evacuation (in hours).

(36) *Was a transportation artery or facility closed?* If a road or transportation facility was closed due to the incident, check the "Yes" box and indicate the duration (in hours) here.

(37) *Was the material involved in a crash or derailment?* Check the "Yes" box if a hazardous material was involved in a crash or derailment. Provide the estimated speed and weather conditions at the time of the crash, such as rain, blowing snow, sleet, iced roadway, sun glare, fog, dry pavement, high winds, etc. Indicate if the vehicle overturned or left the roadway or track.

Part V: Air Incident Information

This section is for incidents with packagings transported or intended for transportation by aircraft. If your packaging was not transported or intended to be transported by air, skip this section.

(38) *Was the shipment on a passenger aircraft?* Indicate whether the shipment in question was on a commercial passenger aircraft. If so, indicate if the material was tendered (accepted for shipment) as cargo, or was located in a passenger's baggage, either in the cabin or baggage compartment.

(39) *Where did the incident occur or where was the incident discovered?* Indicate where in the course of transportation the incident occurred or was discovered.

(40) *What phase(s) had the shipment already undergone prior to the incident?* Check all boxes that describe the transportation phases the shipment went through before the incident occurred or was discovered.

Part VI: Description of Events and Packaging Failure

Please describe the events involved in the incident to provide us with a better understanding of the incident. Include information that has not been collected elsewhere on this form, and include special scenarios, outstanding circumstances, or other information that provides a complete picture of the incident. Describe the sequence of events that led to the incident, the package failure (if any) and actions taken at the time of discovery. Submit photographs and diagrams when necessary for clarification. You may continue on additional sheets if necessary.

Part VII: Recommendations/ Actions Taken to Prevent Future Incidents

Recommendations may be preliminary in nature, may suggest actions by other parties, and may be subject to further investigation, refinement, acceptance, or rejection. Often, it may be beyond the ability of the preparer to offer recommendations, but where such recommendations can be made they have the potential of resulting in important improvements with safety benefits. For instance, such information can help companies identify common problems and alert the DOT to the need for additional measures such as outreach or broad training needs. This information can also help support regulatory changes.

Part VIII: Contact Information

Provide the name, title, telephone number, fax number, business name and address, hazmat registration number and email address of the contact person at your company who can answer questions about the information provided on this form. Make sure to check the box that describes the function of your firm: carrier, shipper, facility owner/operator, or other. If "Other" is checked, describe the function.

Failure Codes for All Packaging Types—Complete List

Code	What Failed
101	Air Inlet
102	Auxiliary Valve
103	Basic Material
104	Body
105	Bolts or Nuts
106	Bottom Outlet Valve
107	Check Valve
108	Chime
109	Closure (e.g., Cap, Top, or Plug)
110	Cover
111	Cylinder Neck or Shoulder
112	Cylinder Sidewall - Near Base
113	Cylinder Sidewall - Other
114	Cylinder Valve
115	Discharge Valve or Coupling
116	Excess Flow Valve
117	Fill Hole
118	Flange
119	Frangible Disc
120	Fusible Pressure Relief Device or Element
121	Gasket
122	Gauging Device
123	Heater Coil
124	High Level Sensor
125	Hose
126	Hose Adaptor or Coupling
127	Inlet (Loading) Valve
128	Inner Packaging
129	Inner Receptacle
130	Lifting Feature
131	Lifting Lug
132	Liner
133	Liquid Line
134	Liquid Valve
135	Loading or Unloading Lines
136	Locking Bar
137	Manway or Dome Cover
138	Mounting Studs
139	O-Ring or Seals
140	Outer Frame
141	Piping or Fittings
142	Piping Shear Section
143	Pressure Relief Valve or Device - Non-Reclosing
144	Pressure Relief Valve or Device -Reclosing
145	Remote Control Device
146	Sample Line
147	Stub Sill (Tank Car)
148	Sump
149	Tank Head
150	Tank Shell
151	Thermometer Well
152	Threaded Connection
153	Vacuum Relief Valve
154	Valve Body
155	Valve Seat
156	Valve Spring
157	Valve Stem
158	Vapor Valve
159	Vent
160	Washout
161	Weld or Seam

Code	How Failed
301	Abraded
302	Bent
303	Burst or Ruptured
304	Cracked
305	Crushed
306	Failed to Operate
307	Gouged or Cut
308	Leaked
309	Punctured
310	Ripped or Torn
311	Structural
312	Torn Off or Damaged
313	Vented

Code	Cause(s) of Failure
501	Abrasion
502	Broken Component or Device
503	Commodity Self-Ignition
504	Commodity Polymerization
505	Conveyor or Material Handling Equipment Mishap
506	Corrosion - Exterior
507	Corrosion - Interior
508	Defective Component or Device
509	Derailment
510	Deterioration or Aging
511	Dropped
512	Fire, Temperature, or Heat
513	Forklift Accident
514	Freezing
515	Human Error
516	Impact with Sharp or Protruding Object (e.g., nails)
517	Improper Preparation for Transportation
518	Inadequate Accident Damage Protection
519	Inadequate Blocking and Bracing
520	Inadequate Maintenance
521	Inadequate Preparation for Transportation
522	Inadequate Procedures
523	Inadequate Training
524	Incompatible Product
525	Incorrectly Sized Component or Device
526	Loose Closure, Component, or Device
527	Misaligned Material, Component, or Device
528	Missing Component or Device
529	Overfilled
530	Over-pressurized
531	Rollover Accident
532	Stub Sill Separation from Tank (Tank Cars)
533	Threads Worn or Cross Threaded
534	Too Much Weight on Package
535	Valve Open
536	Vandalism
537	Vehicular Crash or Accident Damage
538	Water Damage

Failure Codes by Packaging Type General Non-bulk and IBCs

Code	What Failed
103	Basic Material
104	Body
105	Bolts or Nuts
108	Chime
109	Closure (e.g., Cap, Top, or Plug)
110	Cover
119	Frangible Disc
120	Fusible Pressure Relief Device or Element
121	Gasket
125	Hose
128	Inner Packaging
129	Inner Receptacle
130	Lifting Feature
132	Liner
140	Outer Frame
143	Pressure Relief Valve or Device - Non-Reclosing
144	Pressure Relief Valve or Device - Reclosing
161	Weld or Seam

Code	How Failed
301	Abraded
302	Bent
303	Burst or Ruptured
304	Cracked
305	Crushed
306	Failed to Operate
307	Gouged or Cut
308	Leaked
309	Punctured
310	Ripped or Torn
311	Structural
312	Torn Off or Damaged
313	Vented

Code	Cause(s) of Failure
501	Abrasion
503	Commodity Self-Ignition
504	Commodity Polymerization
505	Conveyor or Material Handling Equipment Mishap
506	Corrosion - Exterior
507	Corrosion - Interior
508	Defective Component or Device
510	Deterioration or Aging
511	Dropped
513	Forklift Accident
514	Freezing
515	Human Error
516	Impact with Sharp or Protruding Object (e.g., nails)
517	Improper Preparation for Transportation
521	Inadequate Preparation for Transportation
522	Inadequate Procedures
523	Inadequate Training
529	Overfilled
530	Overpressurized
534	Too Much Weight on Package
535	Valve Open
536	Vandalism
537	Vehicular Crash or Accident Damage
538	Water Damage

·ilure Codes by Packaging Type (continued)

Cylinders

Code	What Failed
111	Cylinder Neck or Shoulder
112	Cylinder Sidewall - Near Base
113	Cylinder Sidewall - Other
114	Cylinder Valve
119	Frangible Disc
120	Fusible Pressure Relief Device or Element
122	Gauging Device
132	Liner
143	Pressure Relief Valve or Device - Non-Reclosing
144	Pressure Relief Valve or Device - Reclosing
161	Weld or Seam

Code	How Failed
301	Abraded
303	Burst or Ruptured
304	Cracked
306	Failed to Operate
307	Gouged or Cut
308	Leaked
309	Punctured
313	Vented

Code	Cause(s) of Failure
501	Abrasion
502	Broken Component or Device
·03	Commodity Self-Ignition
'	Commodity Polymerization
,	Conveyer or Material Handling Equipment Mishap
506	Corrosion - Exterior
507	Corrosion - Interior
508	Defective Component or Device
510	Deterioration or Aging
512	Fire, Temperature, or Heat
513	Forklift Accident
514	Freezing
515	Human Error
516	Impact with Sharp or Protruding Object (e.g., nails)
517	Improper Preparation for Transportation
519	Inadequate Blocking and Bracing
520	Inadequate Maintenance
521	Inadequate Preparation for Transportation
522	Inadequate Procedures
523	Inadequate Training
524	Incompatible Product
525	Incorrectly Sized Component or Device
526	Loose Closure, Component, or Device
527	Misaligned Material, Component, or Device
528	Missing Component or Device
529	Overfilled
530	Over-pressurized
535	Valve Open
536	Vandalism
537	Vehicular Crash or Accident Damage

Portable Tanks

Code	What Failed
105	Bolts or Nuts
106	Bottom Outlet Valve
107	Check Valve
108	Chime
109	Closure (e.g., Cap, Top, or Plug)
110	Cover
119	Frangible Disc
120	Fusible Pressure Relief Device or Element
121	Gasket
122	Gauging Device
125	Hose
127	Inlet (Loading) Valve
131	Lifting Lug
132	Liner
136	Loading or Unloading Lines
137	Manway or Dome Cover
140	Outer Frame
141	Piping or Fittings
143	Pressure Relief Valve or Device - Non-Reclosing
144	Pressure Relief Valve or Device - Reclosing
152	Threaded Connection
153	Vacuum Relief Valve
161	Weld or Seam

Code	How Failed
301	Abraded
302	Bent
303	Burst or Ruptured
304	Cracked
305	Crushed
306	Failed to Operate
307	Gouged or Cut
308	Leaked
309	Punctured
310	Ripped or Torn
312	Torn Off or Damaged
313	Vented

Code	Cause(s) of Failure
501	Abrasion
502	Broken Component or Device
503	Commodity Self-Ignition
504	Commodity Polymerization
505	Conveyer or Material Handling Equipment Mishap
506	Corrosion – Exterior
507	Corrosion – Interior
508	Defective Component or Device
509	Derailment
510	Deterioration or Aging
511	Dropped
512	Fire, Temperature, or Heat
514	Freezing
515	Human Error
517	Improper Preparation for Transportation
520	Inadequate Maintenance
521	Inadequate Preparation for Transportation
522	Inadequate Procedures
523	Inadequate Training
524	Incompatible Product
525	Incorrectly Sized Component or Device
526	Loose Closure, Component, or Device
527	Misaligned Material, Component, or Device
528	Missing Component or Device
529	Overfilled
530	Overpressurized
531	Rollover Accident
536	Vandalism
537	Vehicular Crash or Accident Damage

Bulk Tank Vehicles—Cargo Tank Motor Vehicles (CTMV) and Tank Cars

Code	What Failed
101	Air Inlet
105	Bolts or Nuts
106	Bottom Outlet Valve
107	Check Valve
110	Cover
115	Discharge Valve or Coupling
116	Excess Flow Valve
117	Fill Hole
118	Flange
119	Frangible Disc
120	Fusible Pressure Relief Device or Element
121	Gasket
122	Gauging Device
123	Heater Coil
124	High Level Sensor
125	Hose
126	Hose Adaptor or Coupling
127	Inlet (Loading) Valve
131	Lifting Lug
132	Liner
133	Liquid Line
134	Liquid Valve
135	Loading or Unloading Lines
136	Locking Bar
137	Manway or Dome Cover
138	Mounting Studs
139	O-Ring or Seals
141	Piping or Fittings
142	Piping Shear Section
143	Pressure Relief Valve or Device - Non-Reclosing
144	Pressure Relief Valve or Device - Reclosing
145	Remote Control Device
146	Sample Line
147	Stub Sill (Tank Car)
148	Sump
149	Tank Head
150	Tank Shell
151	Thermometer Well
152	Threaded Connection
153	Vacuum Relief Valve
154	Valve Body
155	Valve Seat
156	Valve Spring
157	Valve Stem
158	Vapor Valve
159	Vent
160	Washout
161	Weld or Seam

Code	How Failed
301	Abraded
302	Bent
303	Burst or Ruptured
304	Cracked
305	Crushed
306	Failed to Operate
307	Gouged or Cut
308	Leaked
309	Punctured
310	Ripped or Torn
311	Structural
312	Torn Off or Damaged
313	Vented

Code	Cause(s) of Failure
501	Abrasion
502	Broken Component or Device
503	Commodity Self-Ignition
504	Commodity Polymerization

(Continued on next page)

Failure Codes by Packaging Type

Bulk Tank Vehicles—Cargo Tank Motor Vehicles (CTMV) and Tank Cars

Code	Cause(s) of Failure
505	Conveyor or Material Handling Equipment Mishap
506	Corrosion - Exterior
507	Corrosion - Interior
508	Defective Component or Device
509	Derailment
510	Deterioration or Aging
511	Dropped
512	Fire, Temperature, or Heat
515	Human Error
517	Improper Preparation for Transportation
518	Inadequate Accident Damage Protection
519	Inadequate Blocking and Bracing
520	Inadequate Maintenance
521	Inadequate Preparation for Transportation
522	Inadequate Procedures
523	Inadequate Training
524	Incompatible Product
525	Incorrectly Sized Component or Device
526	Loose Closure, Component, or Device
527	Misaligned Material, Component, or Device
528	Missing Component or Device
529	Overfilled
530	Overpressurized
531	Rollover Accident
532	Stub Sill Separation from Tank (Tank Cars)
533	Threads Worn or Cross Threaded
536	Vandalism
537	Vehicular Crash or Accident Damage

Incident Reporting Requirements

§ 171.15 Immediate notice of certain hazardous materials incidents.

(a) General. As soon as practical but no later than 12 hours after the occurrence of any incident described in paragraph (b) of this section, each person in physical possession of the hazardous material must provide notice by telephone to the National Response Center (NRC) on 800-424-8802 (toll-free) or 202-267-2675 (toll call). Notice involving an infectious substance (etiologic agent) may be given to the Director, Centers for Disease Control and Prevention (CDC), U.S. Public Health Service, Atlanta, Ga., 800-232-0124 (toll-free), in place of notice to the NRC. Each notice must include the following information:

(1) Name of reporter;

(2) Name and address of person represented by reporter;

(3) Phone number where reporter can be contacted;

(4) Date, time, and location of incident;

(5) The extent of injury, if any;

(6) Class or division, proper shipping name, and quantity of hazardous materials involved, if such information is available; and

(7) Type of incident and nature of hazardous material involvement and whether a continuing danger to life exists at the scene.

(b) Reportable incident. A telephone report is required whenever any of the following occurs during the course of transportation in commerce (including loading, unloading, and temporary storage):

(1) As a direct result of a hazardous material—

(i) A person is killed;

(ii) A person receives an injury requiring admittance to a hospital;

(iii) The general public is evacuated for one hour or more;

(iv) A major transportation artery or facility is closed or shut down for one hour or more; or

(v) The operational flight pattern or routine of an aircraft is altered;

(2) Fire, breakage, spillage, or suspected radioactive contamination occurs involving a radioactive material (see also § 176.48 of this subchapter);

(3) Fire, breakage, spillage, or suspected contamination occurs involving an infectious substance other than a diagnostic specimen or regulated medical waste;

(4) A release of a marine pollutant occurs in a quantity exceeding 450 L (119 gallons) for a liquid or 400 kg (882 pounds) for a solid; or

(5) A situation exists of such a nature (e.g., a continuing danger to life exists at the scene of the incident) that, in the judgment of the person in possession of the hazardous material, it should be reported to the NRC even though it does not meet the criteria of paragraph (b) (1), (2), (3) or (4) of this section.

(c) Written report. Each person making a report under this section must also make the report required by § 171.16 of this Subpart.

Note to § 171.15: Under 40 CFR 302.6, EPA requires persons in charge of facilities (including transport vehicles, vessels, and aircraft) to report any release of a hazardous substance in a quantity equal to or greater than its reportable quantity, as soon as that person has knowledge of the release, to DOT's National Response Center at (toll-free) 800-424-8802 or (toll) 202-267-2675.

§ 171.16 Detailed hazardous materials incident reports.

(a) General. Each person in physical possession of a hazardous material at the time that any of the following incidents occurs during transportation (including loading, unloading, and temporary storage) must submit a Hazardous Materials Incident Report on DOT Form F 5800.1 (01-2004) within 30 days of discovery of the incident:

(1) Any of the circumstances set forth in § 171.15(b);

(2) An unintentional release of a hazardous material or the discharge of any quantity of hazardous waste;

(3) A specification cargo tank with a capacity of 1,000 gallons or greater containing any hazardous material suffers structural damage to the lading retention system or damage that requires repair to a system intended to protect the lading retention system, even if there is no release of hazardous material; or

(4) An undeclared hazardous material is discovered.

(b) Providing and retaining copies of the report. Each person reporting under this section must—

(1) Submit a written Hazardous Materials Incident Report to the Information Systems Manager, DHM-63, Research and Special Programs Administration, Department of Transportation, Washington, DC 20590-0001, or an electronic Hazardous Material Incident Report to the Information System Manager, DHM-63, Research and Special Programs Administration, Department of Transportation, Washington, DC 20590-0001 at http://hazmat.dot.gov;

(2) For an incident involving transportation by aircraft, submit a written or electronic copy of the Hazardous Materials Incident Report to the FAA Security Field Office nearest the location of the incident; and

(3) Retain a written or electronic copy of the Hazardous Materials Incident Report for a period of two years at the reporting person's principal place of business. If the written or electronic Hazardous Materials Incident Report is maintained at other than the reporting person's principal place of business, the report must be made available at the reporting person's principal place of business within 24 hours of a request for the report by an authorized representative or special agent of the Department of Transportation.

(c) Updating the incident report. A Hazardous Materials Incident Report must be updated within one year of the date of occurrence of the incident whenever:

(1) A death results from injury caused by a hazardous material;

(2) There was a misidentification of the hazardous material or packaging information on a prior incident report;

(3) Damage, loss or related cost that was not known when the initial incident report was filed becomes known; or

(4) Damage, loss, or related cost changes by $25,000 or more, or 10% of the prior total estimate, whichever is greater.

(d) Exceptions. Unless a telephone report is required under the provisions of § 171.15 of this part, the requirements of paragraphs (a), (b), and (c) of this section do not apply to the following incidents:

(1) A release of a minimal amount of material from—

(i) a vent, for materials for which venting is authorized;

(ii) the routine operation of a seal, pump, compressor, or valve; or

(iii) connection or disconnection of loading or unloading lines, provided that the release does not result in property damage.

(2) An unintentional release of hazardous material when:

(i) The material is properly classed as—

(A) ORM-D; or

(B) a Packing Group III material in Class or Division 3, 4, 5, 6.1, 8, or 9;

(ii) Each packaging has a capacity of less than 20 liters (5.2 gallons) for liquids or less than 30 kg (66 pounds) for solids;

(iii) The total aggregate release is less than 20 liters (5.2 gallons) for liquids or less than 30 kg (66 pounds) for solids; and

(iv) The material is not—

(A) offered for transportation or transported by aircraft,

(B) a hazardous waste, or

(C) an undeclared hazardous material.

(3) An undeclared hazardous material discovered in an air passenger's checked or carry-on baggage during the airport screening process. (For discrepancy reporting by carriers, see § 175.31 of this subchapter.)

U.S. Department of Transportation
Research and Special Programs
Administration

Hazardous Materials Incident Report

Form Approval OMB No. 2137-0039

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 2137-0039. The filling out of this information is mandatory and will take 96 minutes to complete.

INSTRUCTIONS: Submit this report to the Information Systems Manager, U.S. Department of Transportation, Research and Special Programs Administration, Office of Hazardous Materials Safety, DHM-63, Washington, D.C. 20590-0001. If space provided for any item is inadequate, use a seperate sheet of paper, identifying the entry number being completed. Copies of this form and instructions can be obtained from the Office of Hazardous Materials Website at http://hazmat.dot.gov. If you have any questions, you can contact the Hazardous Materials Information Center at 1-800-HMR-4922 (1-800-467-4922) or online at http://hazmat.dot.gov.

PART I - REPORT TYPE

1. This is to report: ☐ A) A hazardous material incident ☐ B) An undeclared shipment with no release
☐ C) A specification cargo tank 1,000 gallons or greater containing any hazardous materials that (1) received structural damage to the lading retention system or damage that requires repair to a system intended to protect the lading retention system and (2) did not have a release.

2. Indicate whether this is: ☐ An initial report ☐ A supplemental (follow-up) report ☐ Additional Pages

PART II - GENERAL INCIDENT INFORMATION

3. Date of Incident: _____ 4. Time of Incident (use 24-hour time): _____

5. Enter National Response Center Report Number (if applicable): _____

6. If you submitted a report to another Federal DOT agency, enter the agency and report number: _____

7. Location of Incident: City: _____ County: _____ State: _____ ZIP Code (if known): _____
Street Address/Mile Marker/Yardname/Airport/Body of Water/River Mile _____

8. Mode of Transportation ☐ Air ☐ Highway ☐ Rail ☐ Water

9. Transportation Phase ☐ In Transit ☐ Loading ☐ Unloading ☐ In Transit Storage

10. Carrier/Reporter
Name _____
Street _____
City _____ State _____ ZIP Code _____
Federal DOT ID Number _____ Hazmat Registration Number _____

11. Shipper/Offeror
Name _____
Street _____
City _____ State _____ ZIP Code _____
Waybill/Shipping Paper _____ Hazmat Registration Number _____

12. Origin (If different from shipper address)
Street _____
City _____ State _____ ZIP Code _____

13. Destination
Street _____
City _____ State _____ ZIP Code _____

14. Proper Shipping Name of Hazardous Material: _____

15. Technical/Trade Name: _____

16. Hazardous Class/Division: _____

17. Identification Number: _____ (e.g. UN2764, NA 2020)

18. Packing Group: _____ (If applicable)

19. Quantity Released: _____ (Include Measurement Units)

20. Was the material shipped as a hazardous waste? ☐ Yes ☐ No If yes, provide the EPA Manifest Number: _____

21. Is this a Toxic by Inhalation (TIH) material? ☐ Yes ☐ No If yes, provide the Hazard Zone: _____

22. Was the material shipped under an Exemption, Approval, or Competent Authority Certificate? ☐ Yes ☐ No
If yes, provide the Exemption, Approval, or CA number: _____

23. Was this an undeclared hazardous materials shipment? ☐ Yes ☐ No

PART III - PACKAGING INFORMATION

heck Packaging Type (check only one - if more than one, list type of packaging, copy Part III, and complete for each type:

☐ Non-bulk ☐ IBC ☐ Cargo tank Motor Vehicle (CTMV) ☐ Tank Car

☐ Cylinder ☐ RAM ☐ Portable Tank ☐ Other _____

25. See instructions and enter the appropriate failure codes found at the end of the instructions. Be sure to enter the codes from the list that corresponds to the particular packaging type checked above. Enter the number of codes as appropriate to describe the incident. Enter the most important failure point in line 1. If there are more than two failure points, provide in this format in Part VI.

1. What Failed: ___ ___ ___ How Failed: ___ ___ ___ Causes of Failure: ___ ___ ___

2. What Failed: ___ ___ ___ How Failed: ___ ___ ___ Causes of Failure: ___ ___ ___

26a. Provide the packaging identification markings, if available.

Identification Markings: _____

(Examples: 1A1/Y1.4/150/82/USA/RB/93/RL, UN31H1/Y0493/USA/M9339/10800/1200, DOT - 105A - 100W (RAIL), DOT 406 (HIGHWAY), DOT 51, DOT 3-A)

26b. For Non-bulk, IBC, or non-specification packaging, if identification markings are incomplete or unavailable, see instructions and complete the following:

Single Package or Outer Packaging:

Packaging Type: _____

Material of Construction: _____

Head Type (Drums only): ☐ Removable ☐ Non - Removable

Single Package or Inner Packaging (if any):

Packaging Type: _____

Material of Construction: _____

27. Describe the package capacity and the quantity:

Single Package or Outer Packaging:

Package Capacity: _____

Amount in Package: _____

Number in Shipment: _____

Number Failed: _____

Single Package or Inner Packaging (if any):

Package Capacity: _____

Amount in Package: _____

Number in Shipment: _____

Number Failed: _____

28. Provide packaging construction and test information, as appropriate:

Manufacturer: _____ Manufacture Date: _____

Serial Number: _____ Last Test Date: _____

Material of Construction: _____ (If Tank Car, CTMV, Portable Tank, or Cylinder)

Design Pressure: _____ (If Tank Car, CTMV, Portable Tank)

Shell Thickness: _____ (If Tank Car, CTMV, Portable Tank)

Head Thickness: _____ (If Tank Car, CTMV)

Service Pressure: _____ (If Cylinder)

If valve or device failed:

Type: _____ Manufacturer: _____ (If present and legible) Model: _____ (If present and legible)

29. If the packaging is for Radioactive Materials, complete the following:

Packaging Category: ☐ Type A ☐ Type B ☐ Type C ☐ Excepted ☐ Industrial

Packaging Certification: ☐ Self Certified ☐ U.S. Certification Certification Number _____

Nuclide(s) Present: _____ Transport Index: _____

Activity: _____ Critical Safety Index: _____

PART IV - CONSEQUENCES

30. Result of Incident (check all that apply): ☐ Spillage ☐ Fire ☐ Explosion ☐ Material Entered Waterway/Storm Sewer ☐ Vapor (Gas) Dispersion ☐ Environmental Damage ☐ No Release

31. Emergency Response : The following entities responded to the incident: (Check all that apply)

☐ Fire/EMS Report # _____ ☐ Police Report # _____ ☐ In-house cleanup ☐ Other Cleanup

32. Damages: Was the total damage cost more than $500? ☐ Yes ☐ No

If yes, enter the following information: If no, go to question 33.

Material Loss:	Carrier Damage:	Property Damage:	Response Cost:	Remediation/Cleanup Cost:
$ _____	$ _____	$ _____	$ _____	$ _____

(See damage definitions in the instructions)

33a. Did the hazardous material cause or contribute to a human fatality? ☐ Yes ☐ No

If yes, enter the number of fatalities resulting from the hazardous material:

Fatalities: Employees _____ Responders _____ General Public _____

33b. Were there human fatalities that did not result from the hazardous material? ☐ Yes ☐ No If yes, how many? _____

34. Did the hazardous material cause or contribute to personal injury? ☐ Yes ☐ No

If yes, enter the number of injuries resulting from the hazardous material:

Hospitalized (Admitted Only): Employees _____ Responders _____ General Public _____

Non-Hospitalized: Employees _____ Responders _____ General Public _____

(e.g.: On site first aid or Emergency Room observation and release)

35. Did the hazardous material cause or contribute to an evacuation? ☐ Yes ☐ No

If yes, provide the following information:

Total number of general public evacuated _____ Total number of employees evacuated _____ Total Evacuated _____

Duration of the evacuation _____ (hours)

36. Was a major transportation artery or facility closed? ☐ Yes ☐ No If yes, how many? _____ (hours)

37. Was the material involved in a crash or derailment? ☐ Yes ☐ No

If yes, provide the following information: Estimated speed (mph): _____ Weather conditions: _____

Vehicle overturn? ☐ Yes ☐ No

Vehicle left roadway/track? ☐ Yes ☐ No

PART V - AIR INCIDENT INFORMATION (please refer to § 175.31 to report a discrepancy for air shipments)

38. Was the shipment on a passenger aircraft? ☐ Yes ☐ No

If yes, was it tendered as cargo, or as passenger baggage?

☐ Cargo ☐ Passenger baggage

39. Where did the incident occur (If unknown, check the appropriate box for the location where the incident was discovered)?

☐ Air carrier cargo facility ☐ Sort center ☐ Baggage area

☐ By surface to/from airport ☐ During flight ☐ During loading/unloading of aircraft

40. What phase(s) had the shipment already undergone prior to the incident? (Check all that apply)

☐ Shipment had not been transported ☐ Transported by air (first flight) ☐ Transport by air (subsequent flights)

☐ Initial transport by highway to cargo facility ☐ Transfer at sort center/cargo facility

PART VI - DESCRIPTION OF EVENTS & PACKAGE FAILURE

Describe the sequence of events that led to the incident and the actions taken at the time it was discovered. Describe the package failure, including the size and location of holes, cracks, etc. Photographs and diagrams should be submitted if needed for clarification. Estimate the duration of the release, if possible. Describe what was done to mitigate the effects of the release. Continue on additional sheets if necessary.

PART VII - RECOMMENDATIONS/ACTIONS TAKEN TO PREVENT RECURRENCE

Where you are able to do so, suggest or describe changes (such as additional training, use of better packaging, or improved operating procedures) to help prevent recurrence. Provide recommendations for improvement to hazardous materials transportation beyond the control of your individual company. Continue on additional sheets if necessary.

PART VIII- CONTACT INFORMATION

Contact's Name (Type or Print): _____ Telephone Number: ( ) _____

Contact's Title: _____ Fax Number: ( ) _____

Business Name and Address: _____ Hazmat Registration Number (if not already provided): _____

_____

Email Address: _____ Date: _____

Preparer is: ☐ Carrier ☐ Shipper ☐ Facility ☐ Other _____

APPENDIX E

Notification of Hazardous Material Policies and Operation Specifications

Date:

To:

From:

_____ is hereby notifying you of our policies and operation specifications concerning the transport of hazardous materials. This notification is conducted in accordance with the requirements of 14 CFR, Parts 121.1005(e) or 135.505(e). In accordance with 14 CFR 145.206(a), you are required to acknowledge receipt of this notification back to us.

_____ has an FAA approved Will-NOT Carry Hazardous Materials Program.

SUNDANCE HELICOPTERS

FLIGHT LOCATING PROCEDURE

Only the Director of Operations (DO), Chief Pilot (CP), and qualified designees who are, at times, specifically delegated operational control authority exercise operational control of all company aircraft.

As a tool to aid us in flight locating and aircraft accountability, we use web based equipment flight following resources. The scheduler is the primary person responsible for tracking flights using the **web based** resources. The does not mean that other personnel are not precluded from also tracking aircraft with the web based solutions.

Front Desk personnel are the primary flight following resources based on the following procedures:

For all charter flights that leave the Las Vegas Valley:

PILOT:

1. Before departure, the Pilot will complete an Company Flight Plan using the FAA Flight Plan Form (Appendix A Form #10) and post it on the Flight Plan Section of the Operations Bulletin Board.

2. The Pilot will notify Sundance Base when he is departing on the charter. If during other than normal duty hours, the pilot will leave the flight plan at the front desk so the Director of Operations (DO) or his designee will be aware that the flight has departed. If the pilot is at a remote location, he will phone the flight plan to Sundance Base.

3. The pilot will make periodic updates and/or changes to the flight plan by radio, telephone or other means. The pilot shall update the Estimated Time to Return to Base when the estimate changes significantly.

4. The pilot will insure that the flight plan is closed. (Notify the DO or his designee upon arrival at the destination -- **This includes landing at base**).

SUNDANCE BASE:

1. When Sundance Base is notified that a charter flight is departing, the departure time, ETA and Estimated Time to Return to Base (RTB) will be posted on the Flight Following Chart (Appendix A Form #8). If the flight plan was left at the front desk, it will be posted on the Flight Plan Section of the Operations Bulletin Board.

2. When the pilot calls with an update to the flight plan, a Flight Plan Update Form (Appendix A Form # 9) will be posted next to the Flight Plan on the Operations Bulletin Board. The appropriate columns on the Flight Following Chart will also be updated.

3. When the flight is completed, the flight will be cancelled on the Flight Following Chart (write the time the flight was closed).

4. If the flight is over 30 minutes past the ETA, the DO, CP, or CEO will be notified immediately.

TOURS

PILOT:
The pilot will call base and give an ETE on the company frequency approximately 20 minutes before arrival from all Canyon Tours.

SUNDANCE BASE:
1. When the company is notified that a tour flight is departing, the departure time, and ETA will be posted on the Tour Flight Following Chart (Appendix A, Form #8).

2. When the pilot calls the company with an ETE or ETA update, the new ETA will be posted in *Call In ETA* column on the Tour Flight Following Chart.

4. If the flight is over 30 minutes past the ETA, the DO, CP, or CEO will be notified immediately.

Overdue aircraft notification procedures and management phone numbers are listed on the following pages.

OVERDUE AIRCRAFT PROCEDURE

In the event you receive a phone call or radio transmission indicating an accident or incident or in the event of an overdue aircraft (30 minutes from its ETA), please do the following:

1. Write down all pertinent information on the emergency response checklist

2. Notify one of the following immediately:

Name	Home Phone	Cell Phone
Kurt Barton	614-4909	289-0530
Burl Boyd	433-5434	375-5183
Larry Pietropaulo		(412) 913-8344

Until one of above managers is notified and "takes over" the response, continue to take down all pertinent information as it comes in.

3. If any calls are received from the news media, take down the name, phone number, and time of the call and tell the news reporter that a company representative will contact them. A suggested answer to the question about an accident is: "I am not the right person to talk to you about this, if you can provide your name and phone number, I will have a company spokesman return your phone call and answer all of your questions".

4. Once one of above managers "takes over" the response, provide that person with all of the pertinent information written down concerning the situation and a list of media calls if any. Refer all subsequent phone calls to him.

(Continued)
RECORD THE FOLLOWING INFORMATION (if available)

TIME: _____ Date: _____

NAME of Caller or Aircraft Call-Sign _____

Caller's Phone Number: _____

Is the Caller an Eye-witness? YES NO

AIRCRAFT Involved: _____

LOCATION of Accident / Incident or problem: _____

DETAILS of Accident / Incident or problem: _____

_____

_____

NUMBER on board: _____

Are there **INJURIES**: _____

_____

Have any **AUTHORITIES** (Police, Fire, Rangers, other) been notified?

_____

_____

OTHER INFORMATION:

_____

_____

_____

If an aircraft is 30 minutes overdue from its Estimated Time of Arrival, NOTIFY the first person which can be reached from the list in the Emergency Response Plan.

Appendix D
Non Crewmember Passenger Briefing and Training

Cover Page

REVISION: 1
DATE: September 1, 2007

SUNDANCE
HELICOPTERS

FAR Part 135

Approved Non Crewmember Passenger Briefer and Training

5596 Haven Street Las Vegas, Nevada 89119 Telephone 702-736-0606
www.sundancehelicopters.com

Appendix D
Non Crewmember Passenger Briefing and Training

Revision Record

REVISION: 1
DATE: September 1, 2007

Signature of the Manual Holder in the "Inserted By" column signifies that the revision has been reviewed and incorporated into this manual.

Revision Number	Issue Date	Date Inserted	Inserted By
Original	11/29/06	11/29/06	KB
1	9/1/07	9/1/07	KB

Appendix D
Non Crewmember Passenger Briefing and Training

Appendix D Table of Contents

REVISION: 1
-DATE: September 1, 2007

Appendix D
Non Crewmember Passenger Briefing and Training

Appendix D List of Effective Pages

REVISION: 1
DATE: September 1, 2007

Page #	Rev	Date
Cover		
i	1	9/1/07
ii	1	9/1/07
iii	1	9/1/07
iv	1	9/1/07
D-1	1	9/1/07
D-2	Original	11/29/06
D-3	Original	11/29/06
D-4	Original	11/29/06
D-5	Original	11/29/06
D-6	Original	11/29/06
D-7	Original	11/29/06
D-8	Original	11/29/06
D-9	Original	11/29/06
D-10	1	9/1/07
D-11	1	9/1/07
D-12	1	9/1/07
D-13	1	9/1/07
D-14	1	9/1/07

Approved Non Crewmember Passenger Briefing and Training

This document is intended to be a stand alone document to be used as initial, recurrent, and requalification training of all non crewmember personnel involved in the handling and briefing of Sundance Helicopters' passengers.

No employee of Sundance Helicopters, other than a qualified crewmember, is allowed to give the passenger briefing required in FAR 135.117 unless that employee has successfully completed this training and is approved in writing by the Director of Operations, Chief Pilot, or a qualified check airman .

Satisfactory completion of this training and any recurrent or requalification training will be documented on Form NCMPBTP-1 (page D-13 of this appendix) and retained in the employee's training record.

This program will be provided to and maintained by each person receiving the training.

Appendix D
Approved Non Crewmember Passenger Briefing and Training

Date: November 29, 2006
Revision: Original

PURPOSE:

The purpose of this manual is to outline the duties, responsibilities, and requirements of non-crewmember employees who conduct passenger briefings as required by FAR 135.117.

GENERAL:

The concepts and training guidelines presented in this manual are intended to conform to the company standards of passenger handling and to meet or exceed the requirements of the Federal Aviation Administration (FAA).

SPECIFICS:

Sundance Helicopters is committed to and required by the FAA to adhere to specific rules regarding passenger safety briefings prior to passengers boarding our aircraft, passenger control and movement on the airport or heliport surface, boarding/exiting procedures, and passenger conduct during flight.

REQUIREMENTS:

All Sundance Helicopters Customer Service Employees and ground handling personnel will receive initial and annual recurrent training on the subjects listed below and the Director of Operations or the Chief Pilot will maintain a record of this training in the individual's training records using Form NCMPBTP-1 (page D-13 of this appendix).

Training Subjects:

FAR 135.117 requirements
Passenger Safety Briefing
Multi-language
Physically/mentally disadvantaged passengers

LENGTH OF CURRENCY:

All non crewmember personnel involved in passenger briefing shall, after Initial training, attend Recurrency training on a yearly basis. A grace period of one calendar month is allowed. From the last training date, if a period of no more than 13 calendar months has elapsed, attendance of Recurrency training reinstates a person's currency. If more than 13 but less than 36 calendar months have elapsed since last training, the person must attend Requalification training. If more than 36 calendar months have elapsed since last training, the person must attend Initial training.

COURSE LENGTH

Initial training – 2 hours
Recurrency training – 1 hour
Requalification training – 2 hours

Appendix D
Approved Non Crewmember Passenger Briefing and Training

Date: November 29, 2006
Revision: Original

LESSON PLAN – NON CREWMEMBER PASSENGER BRIEFING AND TRAINING

OBJECTIVE: To train non crewmember personnel to properly and legally brief passengers

ELEMENTS:

1. FAR 135.117 requirements
2. Passenger Safety and Emergency Evacuation Briefing
3. Multi-language briefings
4. Physically/Mentally Disadvantaged Passengers

EQUIPMENT:

Training room with notebook computer with PowerPoint presentation and compatible projector.

OR

Adequate training area using this training program

QUALIFIED INSTRUCTOR'S ACTIONS:

Discuss each of the elements using Lecture and Guided Discussion Methods.

STUDENT'S ACTIONS:

Listen, take notes, ask pertinent questions, volunteer additional insight from personal experience during lesson.

COMPLETION STANDARDS:

Satisfactorily complete an oral and/or written exam and demonstrate a proper, legal passenger briefing to one of the following: a qualified Pilot-In-Command, the Director of Operations, Chief Pilot, or qualifies Check Airman.

Appendix D
Approved Non Crewmember Passenger Briefing and Training

Date: November 29, 2006
Revision: Original

FAR 135.117 requirements:

This section of the FARs sets forth the minimum items required for the briefing of passengers flying under the operations conducted by Sundance Helicopters.

The five basic items required for our operations are:

1. Smoking rules and regulations
2. Use of seatbelts
3. Emergency exits
4. Location and use of emergency equipment
5. Ditching procedures (if applicable)

§ 135.117 Briefing of passengers before flight.

(a) Before each takeoff each pilot in command of an aircraft carrying passengers shall ensure that all passengers have been orally briefed on—

(1) Smoking. Each passenger shall be briefed on when, where, and under what conditions smoking is prohibited (including, but not limited to, any applicable requirements of part 252 of this title). This briefing shall include a statement that the Federal Aviation Regulations require passenger compliance with the lighted passenger information signs (if such signs are required), posted placards, areas designated for safety purposes as no smoking areas, and crewmember instructions with regard to these items. The briefing shall also include a statement (if the aircraft is equipped with a lavatory) that Federal law prohibits: tampering with, disabling, or destroying any smoke detector installed in an aircraft lavatory; smoking in lavatories; and, when applicable, smoking in passenger compartments.

(2) The use of safety belts, including instructions on how to fasten and unfasten the safety belts. Each passenger shall be briefed on when, where, and under what conditions the safety belt must be fastened about that passenger. This briefing shall include a statement that the Federal Aviation Regulations require passenger compliance with lighted passenger information signs and crewmember instructions concerning the use of safety belts.

(3) The placement of seat backs in an upright position before takeoff and landing;

(4) Location and means for opening the passenger entry door and emergency exits;

(5) Location of survival equipment;

(6) If the flight involves extended overwater operation, ditching procedures and the use of required flotation equipment;

(7) If the flight involves operations above 12,000 feet MSL, the normal and emergency use of oxygen; and

(8) Location and operation of fire extinguishers.

(b) Before each takeoff the pilot in command shall ensure that each person who may need the assistance of another person to move expeditiously to an exit if an emergency occurs and that person's attendant, if any, has received a briefing as to the

procedures to be followed if an evacuation occurs. This paragraph does not apply to a person who has been given a briefing before a previous leg of a flight in the same aircraft.

(c) The oral briefing required by paragraph (a) of this section shall be given by the pilot in command or a crewmember.

(d) Notwithstanding the provisions of paragraph (c) of this section, for aircraft certificated to carry 19 passengers or less, the oral briefing required by paragraph (a) of this section shall be given by the pilot in command, a crewmember, or other **qualified** person designated by the certificate holder and **approved by the Administrator.**

(e) The oral briefing required by paragraph (a) of this section must be supplemented by printed cards which must be carried in the aircraft in locations convenient for the use of each passenger. The cards must—

(1) Be appropriate for the aircraft on which they are to be used;

(2) Contain a diagram of, and method of operating, the emergency exits;

(3) Contain other instructions necessary for the use of emergency equipment on board the aircraft; and

(4) No later than June 12, 2005, for scheduled Commuter passenger-carrying flights, include the sentence, "Final assembly of this aircraft was completed in [INSERT NAME OF COUNTRY]."

(f) The briefing required by paragraph (a) may be delivered by means of an **approved** recording playback device that is audible to each passenger under normal noise levels.

Passenger Safety Briefing:

Since Sundance Helicopters has three distinctly different types of operations, three distinct briefings are required. The three operations are:

1. Tour operations originating out of Las Vegas McCarran Airport or other places where passengers are loaded into a helicopter that is not running. Normally, this briefing will be conducted by the pilot, but there are occasions when a non crewmember will brief the passengers.
2. Hot loading operations conducted out of Las Vegas McCarran Airport or other places other than Grand Canyon West where passengers are loaded into a helicopter that is running with a pilot at the controls.
3. Grand Canyon West: Hot loading operations, where passengers are loaded into a helicopter that is running with a pilot at the controls, and conducted at two separate locations, i.e. Grand Canyon West Helipads and the "Beach" operating area.

In addition, flights over water require briefing passengers on the use and deployment of personal flotation devices. The proper briefing on the use of these devices is included in a separate briefing. This briefing follows the 3 listed briefings above.

Appendix D
Approved Non Crewmember Passenger Briefing and Training

Date: November 29, 2006
Revision: Original

The minimum safety briefings that shall be given for each type of operation Sundance Helicopters conducts when a non-crewmember gives the briefing are as follows, using an approved briefing card for each passenger:

1. Tour operations originating out of Las Vegas McCarran Airport or other places where passengers are loaded into a helicopter that is not running.

    a. Please listen carefully. FAA regulations require that each person flying on a Sundance Helicopter receive the following briefing. Please refer to the briefing card during this briefing.

    b. Smoking is permitted only in designated smoking areas. Smoking is prohibited on the aircraft operating area, onboard the aircraft, and anywhere within 50 feet of the aircraft.

    c. Seatbelts and shoulder harness, if equipped, are required to be fastened anytime when onboard the aircraft. Operation of aircraft seatbelts and harnesses is similar to the operation of automobile seatbelts. To fasten the belt, insert the metal tab into the metal buckle. To unfasten the belt, lift the metal buckle. On aircraft equipped with rotary dial type of seatbelts and harnesses, insert belt/harness buckles into the center dial. To release, turn the center of the dial. If you have any questions as to the operation and use of seatbelts, ask your briefer for more detailed instructions.

    d. The emergency exits on our aircraft are the front and rear passenger compartment doors. During normal operations, **ONLY** the pilot or ground personnel will open aircraft doors. To open the doors in case of emergency, on aircraft equipped with door handles, turn the door handle downwards and push the front door outward or slide the rear door rearward. On aircraft equipped with lever type openers, lift the lever and push the front door outward or slide the rear door rearward. Never touch the handles or levers during flight. In case of an accident, the front doors can be jettisoned by lifting the plastic tab and pulling upwards on the orange handle. This procedure is **ONLY** to be used in case of emergency. Exit the aircraft by the nearest exit and move towards the **FRONT** of the aircraft. Refer to the briefing card in the aircraft for pictorial examples of these procedures.

    e. Fire extinguishers are located next to or in back of the pilot's seat. To operate extinguishers, pull the ring, point the extinguisher nozzle at the base of the flame, and squeeze the handle trigger using a sweeping motion to extinguish the flames. First aid kits and emergency water are located in the baggage compartment on the left side of the aircraft, just behind the aft passenger doors.

    f. If you start to feel "motion sickness", there are white motion sickness bags available in both the front and back seat areas of the helicopter. After using a "sick sack" please keep it secure from spilling and keep it in your possession. During the off loading, out loaders will show you where to dispose of it.

    g. After the flight is completed and the helicopter has landed back on the ramp, please stay on board and do not open helicopter doors. A Sundance ground crewmember, also called a "loader", will open the doors assist in directing the off loading of all passengers. Please follow the lead of the loaders as you exit the helicopter to the front. **Never go toward or near the rear of a running helicopter!**

2. Hot loading operations conducted out of Las Vegas McCarran Airport or other places other than Grand Canyon West where passengers are loaded into a helicopter that is running with a pilot at the controls

    a. Please listen carefully. FAA regulations require that each person flying on a Sundance Helicopter receive the following briefing. Please refer to the briefing card during this briefing.

    b. You are about to depart on a helicopter flight. The following includes some important safety procedures that you need to be aware of.

    c. You will be boarding and unboarding from a helicopter that will have the engine running and the rotor blades turning. It will be noisy, so it is important that you follow the directions and hand signals of Sundance personnel assigned to help you board the helicopter correctly.

    d. Smoking is permitted only in designated smoking areas. Smoking is prohibited on the aircraft operating area, onboard the aircraft, and anywhere within 50 feet of the aircraft.

    e. Please remain in the designated area until a guide leads your group to an area where you will be assigned to a loader. Prior to leaving the designated area please remove all hats and backpacks. While in the aircraft operating area, if you drop a personal item, i.e. hat, scarf, etc., **under no circumstance are you to chase it!** Sundance personnel will retrieve it for you.

    f. A Sundance designated loader will escort your group to the helicopter. You will be led to the front of the helicopter in full view of the pilot. **Never approach or depart a running helicopter from the rear.** The tail rotor blades are turning very fast, are close to the ground, are almost invisible, and are very dangerous.

    g. A loader will open the door to the helicopter. It's advisable to duck or crouch slightly when walking under the main rotor blades. When directed, carefully climb into the helicopter and slide all the way across to the last seat available. Seatbelts and shoulder harness, if equipped, are required to be fastened anytime when onboard the aircraft. Operation of aircraft seatbelts and harnesses is similar to the operation of automobile seatbelts. To fasten the belt, insert the metal tab into the metal buckle. To unfasten the belt, lift the metal buckle. On aircraft equipped with rotary dial type of seatbelts and harnesses, insert belt/harness buckles into the center dial. To release, turn the center of the dial. If you have any questions as to the operation and use of seatbelts, ask your briefer for more detailed instructions. A loader will close and secure the aircraft door(s) when everyone is on board.

    h. The emergency exits on our aircraft are the front and rear passenger compartment doors. During normal operations, **ONLY** the pilot or ground personnel will open aircraft doors. To open the doors in case of emergency, on aircraft equipped with door handles, turn the door handle downwards and push the front door outward or slide the rear door rearward. On aircraft equipped with lever type openers, lift the lever and push the front door outward or slide the rear door rearward. Never touch the handles or levers during flight. In case of an accident, the front doors can be jettisoned by lifting the plastic tab and pulling upwards on the orange handle. This procedure is **ONLY** to be used in case of emergency. Exit the aircraft by the nearest exit and move towards the **FRONT** of the aircraft. Refer to the briefing card in the aircraft for pictorial examples of these procedures.

i. Fire extinguishers are located next to or in back of the pilot's seat. To operate extinguishers, pull the ring, point the extinguisher nozzle at the base of the flame, and squeeze the handle trigger using a sweeping motion to extinguish the flames. First aid kits and emergency water are located in the baggage compartment on the left side of the aircraft, just behind the aft passenger doors.

j. For all flights at night, please do not use the camera flash. Camera flashes may not only temporarily blind the pilot, but the flash will only cause your image to be reflected off the aircraft window and superimposed onto the picture.

k. If you start to feel "motion sickness", there are white motion sickness bags available in both the front and back seat areas of the helicopter. After using a "sick sack" please keep it secure from spilling and keep it in your possession. During the off loading, out loaders will show you where to dispose of it.

l. After the flight is completed and the helicopter has landed back on the ramp, please stay on board and do not open helicopter doors. A Sundance ground crewmember, also called a "loader", will open the doors assist in directing the off loading of all passengers. Please follow the lead of the loaders as you exit the helicopter to the front. **Never go toward or near the rear of a running helicopter!**

m. Your group will be assembled together and led back into a designated area.

3. Grand Canyon West hot loading operations where passengers are loaded into a helicopter that is running with a pilot at the controls at two separate locations, i.e. Grand Canyon West Helipads and the "Beach" operating area.

    a. Please listen carefully. FAA regulations require that each person flying on a Sundance Helicopter receive the following briefing. You are about to depart on a helicopter flight into the Grand Canyon. The following includes some important safety procedures that you need to be aware of. Please refer to the briefing card during this briefing.

    b. You will be boarding and unboarding from a helicopter that will have the engine running and the rotor blades turning. It will be noisy, so it is important that you follow the directions and hand signals of Sundance personnel assigned to help you board the helicopter correctly.

    c. Smoking is permitted only in designated smoking areas. Smoking is prohibited on the aircraft operating area, onboard the aircraft, and anywhere within 50 feet of the aircraft.

    d. Please remain at the briefing area until a guide leads your group to the helipads. Prior to arriving at the helipads please remove all hats, any personal item that may blow away due to the helicopter rotor wash, and backpacks. While in the vicinity of the helicopters, if you drop anything or if a hat were to blow off, **do not chase it!** Sundance personnel will retrieve it for you.

    e. A Sundance designated loader will escort your group to the helicopter. You will be led to the front of the helicopter in full view of the pilot. **Never approach or depart a running helicopter from the rear.** The tail rotor blades are turning very fast, are close to the ground, are almost invisible, and are very dangerous.

    f. A loader will open the door to the helicopter. It's advisable to duck or crouch slightly when walking under the main rotor blades. When directed, carefully climb into the helicopter and slide all the way across to the last seat available. Seatbelts and shoulder harness, if equipped, are required to be fastened anytime when onboard the aircraft. Operation of aircraft seatbelts and harnesses is similar to the operation of automobile seatbelts. To fasten the belt, insert the metal tab into the metal buckle. To unfasten the belt, lift the metal buckle. On aircraft equipped with rotary dial type of seatbelts and harnesses, insert belt/harness buckles into the center dial. To release, turn the center of the dial. If you have any questions as to the operation and use of seatbelts, ask your briefer for more detailed instructions. A loader will close and secure the aircraft door(s) when everyone is on board.

    g. The emergency exits on our aircraft are the front and rear passenger compartment doors. During normal operations, **ONLY** the pilot or ground personnel will open aircraft doors. To open the doors in case of emergency, on aircraft equipped with door handles, turn the door handle downwards and push the front door outward or slide the rear door rearward. On aircraft equipped with lever type openers, lift the lever and push the front door outward or slide the rear door rearward. Never touch the handles or levers during flight. In case of an accident, the front doors can be jettisoned by lifting the plastic tab and pulling upwards on the orange handle. This procedure is **ONLY** to be used in case of emergency. Exit the aircraft by the nearest exit and

move towards the **FRONT** of the aircraft. Refer to the briefing card in the aircraft for pictorial examples of these procedures.

h. Fire extinguishers are located next to or in back of the pilot's seat. To operate extinguishers, pull the ring, point the extinguisher nozzle at the base of the flame, and squeeze the handle trigger using a sweeping motion to extinguish the flames. First aid kits and emergency water are located in the baggage compartment on the left side of the aircraft, just behind the aft passenger doors.

i. If you start to feel "motion sickness", there are white motion sickness bags available in both the front and back seat areas of the helicopter. After using a "sick sack" please keep it secure from spilling and maintain it in your possession. During the off loading, our loaders will show you where to dispose of it.

j. After the flight is completed and the helicopter has landed, please stay on board and do not open the helicopter doors. A Sundance ground crewmember, also called a "loader", will open the doors assist in directing the off loading of all passengers. Please follow the lead of the loaders as you exit the helicopter to the front. **Never go toward or near the rear of a running helicopter!**

Appendix D
Approved Non Crewmember Passenger Briefing and Training

Date: September 1, 2007
Revision: 1

On any flight that crosses a river, lake, or body of water, the following briefing regarding the wear and use of personal flotation devices must be included in the passenger briefing.

1. Ladies and Gentlemen, there are new Federal Aviation Regulations that require the wearing of personal flotation devices on any helicopter tour flight which crosses any body of water.

2. On a Sundance Helicopter tour, your helicopter will cross the Colorado River at Hoover Dam and will cross Lake Mead, the reservoir created by Hoover Dam, several times.

3. While it is extremely unlikely that a helicopter will need to make a precautionary landing into one of these bodies of water on a tour flight, Sundance Helicopters is required to brief you on procedures for such a landing. Specifically, you need to know how to use the personal flotation devices which are contained in small pouches that you are required to wear.

4. To put the pouch on place the pouch and strap around your waist as you would a belt, ensuring that the orange tab faces forward and downward, and buckle it. Children weighing from 35-65 pounds should wear the child's version of the device. If traveling with children, please insure that they are properly wearing their flotation devices.

5. Infants and children less than 35 pounds should be placed in the infant flotation devices before entering the aircraft. To properly place the device on the infant, place one leg over the harness loop, and pull snug but NOT tight. Buckle the belt around the infant's waist and tighten. Pull the red tabs to inflate. Do NOT inflate the infant's device until instructed to do so by the pilot or after inflating your own device.

6. In flight and upon instructions from the pilot to don the device, first remove and unplug your headsets, placing them on the floor of the aircraft. Pull the orange tab up and away from your body, disengaging the vest from the pouch.

7. Continue pulling the vest upward and pull it over your head. The life vest is now in place. Insure that your child's device is properly donned in the same manner.

8. In the unlikely event of a water landing, do not exit the helicopter until the main rotor stops or instructed to do so by the pilot.

9. DO NOT INFLATE LIFE VESTS UNTIL INSTRUCTED TO DO SO OR JUST AFTER EXITING THE AIRCRAFT.

10. To jettison the front doors, pull the plastic cover away from the orange jettison handle and lift up on the orange jettison handle. The door will fall away from the aircraft. Let it drop.

11. To inflate the life vest, jerk the red tabs downward.

12. Once the vest is inflated, additional air may be added by blowing into the red tubes. The red tubes are located on both sides of the vest extending upwards.

13. Do not inflate life vests in the helicopter unless instructed to do so by the pilot.

14. Exit the helicopter, and THEN inflate your life vest, your child's vest, and an infant's vest.

LIFE VESTS SHOULD NOT BE INFLATED IN THE AIRCRAFT. AN OCCUPANT WEARING AN INFLATED LIFE VEST MAY EXPERIENCE DIFFICULTY EGRESSING FROM A HELICOPTER.

Multi-language briefings:

While it is not required that each passenger be briefed in his/her primary language, Sundance Helicopters has briefing cards in many of the major languages of the world. These cards shall be used to brief passengers speaking other than English.

Appendix D
Approved Non Crewmember Passenger Briefing and Training

Date: September 1, 2007
Revision: 1

Physically/Mentally Disadvantaged Passengers:

Before each takeoff the pilot in command shall ensure that each person who may need the assistance of another person to move expeditiously to an exit if an emergency occurs and that person's attendant, if any, has received a briefing as to the procedures to be followed if an evacuation occurs. This paragraph does not apply to a person who has been given a briefing before a previous leg of a flight in the same aircraft.

Although not required by regulations governing impaired passengers, prudence regarding safety dictates that persons with certain disabilities and children should not be seated next to exits requiring special motor skills or next to critical flight controls. For sight impaired passengers or passengers with a service animal, a verbatim copy of company policy follows:

SUNDANCE HELICOPTERS

GENERAL POLICY DIRECTIVE **D-12-083006**

Procedures for carriage of persons with service animals aboard Sundance Helicopters aircraft.

1. We make every effort to provide transportation for service animals on flights originating at the Las Vegas base. This shall insure that we would not be hot-loading service animals.

2. On the Grand Canyon Shuttle, we do not carry service animals unless we can insure that we will not hot-load.

3. We require 48 hours notice for carriage of service animals in all instances.

4. The animals will occupy aft seats, never front seats.

5. The animal will be muzzled.

6. The pilot in command will exercise discretion as to the safety of carriage. If he/she deems the carriage to be unsafe, the animal will not be carried.

7. The animal must be in a harness which has provisions for strapping the animal in with seat belts/shoulder harnesses.

8. A sighted person must accompany a sight impaired person to assist in case of emergency.

9. The other passengers on the aircraft must agree to being seated next to/in the vicinity of the service animal.

Appendix D
Approved Non Crewmember Passenger Briefing and Training

Date: September 1, 2007
Revision: 1

Form NCMPBTP-1

Date	Name	Comments	C.P, Training Capt., or D.O. Signature

Initial = IN, 2 Hours Recurrent = RE, 1 Hour Requalification = RQ, 2 Hours

Date Completed	Due Month/Year	Qualified Company Instructor Signature	IN	RE	RQ	HRS	Employee Signature	Qualified PIC Sign and Date

Revision: 10
Date: 1/25/11

SUNDANCE HELICOPTERS, INC.

FLEET

MINIMUM EQUIPMENT LIST

AS-350 SERIES

This MEL has been revised in accordance with FAA AS-350 Master Minimum Equipment List
Revision: 3a Dated: 05/24/07

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SUNDANCE HELICOPTERS, INC.
MINIMUM EQUIPMENT LIST
AS-350 SERIES FLEET
CONTROL PAGE

This MEL has been revised in accordance with FAA AS-350 Master Minimum Equipment List
Revision: 3a Dated: 05/24/07
And incorporates PL-025 R16, PL-76 R5, PL-120 R1

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FAA APPROVED
DATE: 02/08/2011
[redacted]
LAS FSDO

Definitions

1. System Definitions.
System numbers are based on the Air Transport Association (ATA) Specification and items are numbered sequentially.
a. "Item" (Column 1) means the equipment, system, component, or function listed in the "Item" column. Repair interval categories (A, B, C, and D) are listed on right side of column 1. Repair intervals are described in definition 22.

b. "Number Installed" (Column 2) is the number (quantity) of items normally installed in the aircraft. This number represents the aircraft configuration considered in developing this MMEL. Should the number be a variable (e.g., passenger cabin items) a number is not required.

c. "Number Required for Dispatch" (Column 3) is the minimum number (quantity) of items required for operation provided the conditions specified in Column 4 are met.

NOTE: Where the MMEL shows a variable number required for dispatch, the MEL must reflect the actual number required for dispatch or an alternate means of configuration control approved by the Administrator.

d. "Remarks or Exceptions" (Column 4) in this column includes a statement either prohibiting or permitting operation with a specific number of items inoperative, provisos (conditions and limitations) for such operation, and appropriate notes.

e. A vertical bar (change bar) in the margin indicates a change, addition or deletion in the adjacent text for the current revision of that page only. The change bar is dropped at the next MMEL revision.

2. "Airplane/Rotorcraft Flight Manual" (AFM/RFM) is the document required for type certification and approved by the responsible FAA Aircraft Certification Office. The FAA approved AFM/RFM for the specific aircraft is listed on the applicable Type Certificate Data Sheet.

3. "As required by FAR" means that the listed item is subject to certain provisions (restrictive or permissive) expressed in the Federal Aviation Regulations operating rules. The number of items required by the FAR must be operative. When the listed item is not required by FAR it may be inoperative for time specified by repair category. The term "14 CFR" may be substituted for "FAR" in MMELs or operator MELs.

4. Each inoperative item must be placarded to inform and remind the crewmembers and maintenance personnel of the equipment condition.

NOTE: To the extent practical, placards should be located adjacent to the control or indicator for the item affected; however, unless otherwise specified, placard wording and location will be determined by the operator.

5. "-" symbol in Column 2 and/or Column 3 indicates a variable number (quantity) of the item installed.

6. "Deleted" in the remarks column after a sequence item indicates that the item was previously listed but is now required to be operative if installed in the aircraft.

7. As used in MMELs, "ER" refers to Extended Operations (ETOPS) of an airplane with operational approval to conduct ETOPS in accordance with the applicable regulations.

8. "Federal Aviation Regulations" (FAR) means the applicable portions of the Federal Aviation Act and Federal Aviation Regulations.

9. "Flight Day" means a 24 hour period (from midnight to midnight) either Universal Coordinated Time (UCT) or local time, as established by the operator, during which at least one flight is initiated for the affected aircraft.

10. "Icing Conditions" means an atmospheric environment that may cause ice to form on the aircraft (structural) or in the engine(s) (induction).

11. Alphabetical symbol in Column 4 indicates a proviso (condition or limitation) that must be complied with for operation with the listed item inoperative.

12. "Inoperative" means a system and/or component malfunction to the extent that it does not accomplish its intended purpose and/or is not consistently functioning normally within its approved operating limit(s) or tolerance(s).

13. "Notes:" in Column 4 provides additional information for crewmember or maintenance consideration. Notes are used to identify applicable material which is intended to assist with compliance, but do not relieve the operator of the responsibility for compliance with all applicable requirements. Notes are not a part of the provisos.

14. Inoperative components of an inoperative system: Inoperative items which are components of a system which is inoperative are usually considered components directly associated with and having no other function than to support that system. (Warning/caution systems associated with the inoperative system must be operative unless relief is specifically authorized per the MMEL).

15. "(M)" symbol indicates a requirement for a specific maintenance procedure which must be accomplished prior to operation with the listed item inoperative. Normally these procedures are accomplished by maintenance personnel; however, other personnel may be qualified and authorized to perform certain functions. Procedures requiring specialized knowledge or skill, or requiring the use of tools or test equipment should be accomplished by maintenance personnel. The satisfactory accomplishment of all maintenance procedures, regardless of who performs them, is the responsibility of the operator. Appropriate procedures are required to be published as part of the operator's manual or MEL.

16. "(O)" symbol indicates a requirement for a specific operations procedure which must be accomplished in planning for and/or operating with the listed item inoperative. Normally these procedures are accomplished by the flight crew; however, other personnel may be qualified and authorized to perform certain functions. The satisfactory accomplishment of all procedures, regardless of who performs them, is the responsibility of the operator. Appropriate procedures are required to be published as a part of the operator's manual or MEL.

NOTE: The (M) and (O) symbols are required in the operator's MEL unless otherwise authorized by the Administrator.

17. "Deactivated" and "Secured" means that the specified component must be put into an acceptable condition for safe flight. An acceptable method of securing or deactivating will be established by the operator.

18. "Visual Flight Rules" (VFR) is as defined in FAR Part 91. This precludes a pilot from filing an Instrument Flight Rules (IFR) flight plan.

19. "Visual Meteorological Conditions" (VMC) means the atmospheric environment is such that would allow a flight to proceed under the visual flight rules applicable to the flight. This does not preclude operating under Instrument Flight Rules.

20. "Visible Moisture" means an atmospheric environment containing water in any form that can be seen in natural or artificial light; for example, clouds, fog, rain, sleet, hail, or snow.

21. "Passenger Convenience Items" Deleted see NEF #30.

22. Repair Intervals: All users of an MEL approved under FAR 121, 125, 129 and 135 must effect repairs of inoperative systems or components, deferred in accordance with the MEL, at or prior to the repair times established by the following letter designators:

Category A. Items in this category shall be repaired within the time interval specified in the remarks column of the operator's approved MEL. For time intervals specified in "calendar days" or "flight days," the day the malfunction was recorded in the aircraft maintenance record/logbook is excluded. For all other time intervals (flights, flight legs, cycles, hours, etc), repair tracking begins at the point when the malfunction is deferred in accordance with the operator's approved MEL.

Category B. Items in this category shall be repaired within three (3) consecutive calendar days (72 hours), excluding the day the malfunction was recorded in the aircraft maintenance record/logbook. For example, if it were recorded at 10 a.m. on January 26th, the three day interval would begin at midnight the 26th and end at midnight the 29th.

Category C. Items in this category shall be repaired within ten (10) consecutive calendar days (240 hours), excluding the day the malfunction was recorded in the aircraft maintenance record/logbook. For example, if it were recorded at 10 a.m. on January 26th, the 10 day interval would begin at midnight the 26th and end at midnight February 5th.

Category D. Items in this category shall be repaired within one hundred and twenty (120) consecutive calendar days (2880 hours), excluding the day the malfunction was recorded in the aircraft maintenance log and/or record. The letter designators are inserted adjacent to Column 2.

An operator who has the authorization to use an MEL also has the authority to approve extensions to the maximum repair interval for category B and C items provided the responsible Flight Standards District Office (FSDO) is notified within 24 hours of the MEL extension. The operator is not authorized to extend A and D items in the MEL. Misuse of the MEL extension authority may result in the operators OpSpecs/Mspecs being amended by removing the authority for the operator to use the MEL extension authority and/or use an MEL.

23. Electronic fault alerting system – General New generation aircraft display system fault indications to the flight crew by use of computerized display systems. Each aircraft manufacturer has incorporated individual design philosophies in determining the data that would be represented.

24. "Administrative control item" means an item listed by the operator in the MEL for tracking and informational purposes. It may be added to an operator's MEL by approval of the Principal Operations Inspector provided no relief is granted, or provided conditions and limitations are contained in an approved document (i.e. Structural Repair Manual, airworthiness directive, etc.). If relief other than that granted by an approved document is sought for an administrative control item, a request must be submitted to the Administrator. If the request results in review and approval by the FOEB, the item becomes an MMEL item rather than an administrative control item.

25. "***" symbol in Column 1 indicates an item which is not required by regulation but which may have been installed on some models of aircraft covered by this MMEL. This item may be included on the operator's MEL after the approving office has determined that the item has been installed on one or more of the operator's aircraft. The symbol, however, shall not be carried forward into the operator's MEL. It should be noted that neither this policy nor the use of this symbol provides authority to install or remove an item from an aircraft.

26. "Excess Items" means those items that have been installed that are redundant to the requirements of the FARs.

27. "Day of Discovery" is the calendar day an equipment/instrument malfunction was recorded in the aircraft maintenance log and or record. This day is excluded from the calendar days or flight days specified in the MMEL for the repair of an inoperative item of equipment. This provision is applicable to all MMEL items, i.e., categories "A, B, C, and D."

28. "Considered Inoperative", as used in the provisos means that item must be treated for dispatch, taxi and flight purposes as though it were inoperative. The item shall not be used or operated until the original deferred item is repaired. Additional actions include: documenting the item on the dispatch release (if applicable), placarding, and complying with all remarks, exceptions, and related MMEL provisions, including any (M) and (O) procedures and observing the repair category.

29. " Is not used" in the provisos, remarks or exceptions for an MMEL item may specify that another item relieved in the MMEL "is not used." In such cases, crewmembers should not activate, actuate, or otherwise utilize that component or system under normal operations. It is not necessary for the operators to accomplish the (M) procedures associated with the item. However, operational requirements must be complied with, and an additional placard must be affixed, to the extent practical, adjacent to the control or indicator for the item that is not used to inform crewmembers that a component or system is not to be used under normal operations.

30. Nonessential equipment and furnishings (NEF) are those items installed on the aircraft as part of the original type certification, supplemental type certificate, or other form of alteration that have no effect on the safe operation of flight and would not be required by the applicable certification rules or operational rules. They are those items that if inoperative, damaged or missing have no effect on the aircraft's ability to be operated safely under all operational conditions. These nonessential items may be installed in areas including, but not limited to, the passenger compartment, flight deck area, service areas, cargo areas, crew

rest areas, lavatories, and galley areas. NEF items are not items already identified in the MEL or CDL of the applicable aircraft. They do not include items that are functionally required to meet the certification rule or for compliance with any operational rule. Operator's NEF process shall not provide for deferral of items within serviceable limits identified in the manufacturer's maintenance manual or operator's approved maintenance program such as wear limits, fuel/hydraulic leak rates, oil consumption, etc. Cosmetic items that are fully serviceable but worn or soiled may be deferred under an operator's NEF process.

31. As used in MMELs, Heavy Maintenance Visit (HMV) is a scheduled C-check/D-check or airworthiness maintenance program inspection where the aircraft is scheduled to be out of service for 4 or more days.

Preamble
(Effective 6/14/89)

The following is applicable for authorized certificate holders operating under Federal Aviation Regulations (FAR) Parts 121, 125, 129, 135: The FAR require that all equipment installed on an aircraft in compliance with the Airworthiness Standards and the Operating Rules must be operative. However, the Rules also permit the publication of a Minimum Equipment List (MEL) where compliance with certain equipment requirements is not necessary in the interests of safety under all operating conditions. Experience has shown that with the various levels of redundancy designed into aircraft, operation of every system or installed component may not be necessary when the remaining operative equipment can provide an acceptable level of safety. A Master Minimum Equipment List (MMEL) is developed by the FAA, with participation by the aviation industry, to improve aircraft utilization and thereby provide more convenient and economic air transportation for the public. The FAA approved MMEL includes those items of equipment related to airworthiness and operating regulations and other items of equipment which the Administrator finds may be inoperative and yet maintain an acceptable level of safety by appropriate conditions and limitations; it does not contain obviously required items such as wings, flaps, and rudders. The MMEL is the basis for development of individual operator MELs which take into consideration the operator's particular aircraft equipment configuration and operational conditions. Operator MELs, for administrative control, may include items not contained in the MMEL; however, relief for administrative control items must be approved by the Administrator. An operator's MEL may differ in format from the MMEL, but cannot be less restrictive than the MMEL. The individual operator's MEL, when approved and authorized, permits operation of the aircraft with inoperative equipment. Equipment not required by the operation being conducted and equipment in excess of FAR requirements are included in the MEL with appropriate conditions and limitations. The MEL must not deviate from the Aircraft Flight Manual Limitations, Emergency Procedures or with Airworthiness Directives. It is important to remember that all equipment related to the airworthiness and the operating regulations of the aircraft not listed on the MMEL must be operative.

Suitable conditions and limitations in the form of placards, maintenance procedures, crew operating procedures and other restrictions as necessary are specified in the MEL to ensure that an acceptable level of safety is maintained.

The MEL is intended to permit operation with inoperative items of equipment for a period of time until repairs can be accomplished. It is important that repairs be accomplished at the earliest opportunity. In order to maintain an acceptable level of safety and reliability the MMEL establishes limitations on the duration of and conditions for operation with inoperative equipment. The MEL provides for release of the aircraft for flight with inoperative equipment. When an item of equipment is discovered to be inoperative, it is reported by making an entry in the Aircraft Maintenance Record/Logbook as prescribed by FAR. The item is then either repaired or may be deferred per the MEL or other approved means acceptable to the Administrator prior to further operation. MEL conditions and limitations do not relieve the operator from determining that the aircraft is in condition for safe operation with items of equipment inoperative.

When these requirements are met, an Airworthiness Release, Aircraft Maintenance Record/Logbook entry, or other approved documentation is issued as prescribed by FAR. Such documentation is required prior to operation with any item of equipment inoperative.

Preamble
(Effective 6/14/89)

Operators are responsible for exercising the necessary operational control to ensure that an acceptable level of safety is maintained. When operating with multiple inoperative items, the interrelationships between those items and the effect on aircraft operation and crew workload will be considered.

Operators are to establish a controlled and sound repair program including the parts, personnel, facilities, procedures, and schedules to ensure timely repair.

WHEN USING THE MEL, COMPLIANCE WITH THE STATED INTENT OF THE PREAMBLE, DEFINITIONS, AND THE CONDITIONS AND LIMITATIONS SPECIFIED IN THE MEL IS REQUIRED.

Guidelines for (O) & (M) Procedures

21-2 (O) Procedure to operate with Bleed Air Heater Control Valve inoperative.

21-3 (M) Procedure to inspect, deactivate, compressor drive and secure the air conditioner.

23-2 (O) Alternate procedure for inoperative Cockpit/Cabin Speaker.

23-3 (O) Alternate procedure for inoperative Cabin/ICS System.

24-2 (M) Procedure to disconnect battery and secure the battery cables.

30-2 (M) Procedure to inspect and determine the anti-ice airframe fuel filter is clear of ice build up.

52-1 (O) Procedure to operate with Door Warning System Inoperative.

65-1 (O) Procedure to operate with Rotor Brake System inoperative.

MEL Management Program

The Director of Maintenance is responsible for managing the Authorized Minimum Equipment List Program in its entirety for all company aircraft that have an approved FAA MEL. The DOM will exercise the necessary operational control to insure that a high level of safety is maintained. The DOM has the authority to delegate the management (but maintains the responsibility) of the MEL program to qualified personnel who hold FAA Airframe and Powerplant Certificates.

Mechanical Discrepancies

The Pilot in Command shall enter or have entered in the discrepancy section of the Aircraft Maintenance Log all mechanical irregularities that come to his attention before, during, and after completion of the flight. It shall be the Pilot in Command's responsibility to ensure that any mechanical discrepancies entered in the Aircraft Maintenance Log has either been corrected or properly deferred by an appropriately qualified mechanic before operation of the aircraft. No discrepancy may be deferred without the approval of the DOM or his designee.

Deferred Maintenance

An aircraft must have all installed equipment operational or deferred in order to operate within the type certificate issued for that aircraft. In order for an operator to secure relief from this requirement the FAA can authorize the use of a Minimum Equipment List which will allow for operations with certain inoperable installed equipment.

The inoperative equipment must not present a lower level of safety by virtue of being inoperative. Those items marked with an (O) are those items identified as requiring an operational procedure to be complied with prior to operation of the aircraft. Those items marked with an (M) are those items identified as requiring a maintenance procedure to be complied with prior to operation of the aircraft.

The FAA has established time intervals in which deferred items must be repaired within. These items are identified by the letter A, B, C, or D in column 1. of the MEL.

An "A" item shall be repaired within the time interval specified in the remarks column of the operator's approved MEL. **For time intervals specified in "calendar days" or "flight days," the day the malfunction was recorded in the aircraft maintenance record/logbook is excluded. For all other time intervals (flights, flight legs, cycles, hours, etc), repair tracking begins at the point when the malfunction is deferred in accordance with the operator's approved MEL.**

A "B" item shall be repaired within three (3) consecutive calendar days (72 hours), excluding the day the malfunction was recorded in the aircraft maintenance record/logbook. For example, if it were recorded at 10 a.m. on January 26th, the three day interval would begin at midnight the 26th and end at midnight the 29th.

A "C" item shall be repaired within ten (10) consecutive calendar days (240 hours), excluding the day the malfunction was recorded in the aircraft maintenance record/logbook. For example, if it were recorded at 10 a.m. on January 26th, the 10 day interval would begin at midnight the 26th and end at midnight February 5th.

Deferred Maintenance Items Procedure

A "D" item shall be repaired within one hundred and twenty (120) consecutive calendar days (2880 hours), excluding the day the malfunction was recorded in the aircraft maintenance log and/or record. The letter designators are inserted adjacent to Column 2.

Deferred Maintenance Items Procedure

When any item of installed equipment or instrumentation becomes inoperative the Pilot in Command (PIC) will record the discrepancy in the Aircraft Maintenance Log in accordance with the following procedures:

The Pilot in Command will report the discrepancy to Maintenance. The Director of Maintenance (or designee) will review and defer the discrepancy if acceptable by the approved MEL. The Director of Maintenance (or designee) will authorize the next deferred maintenance item (DMI) control number from the deferred item log that is to be used for the discrepancy.

In the Corrective Action Column across from the discrepancy, the pilot or mechanic will record that the discrepancy has been deferred in accordance with instructions from maintenance, by whom the deferral was authorized, the position of that person (i.e. Mechanic or Pilot), a reference to the MEL sequence number allowing the deferral and compliance with any (M) or (O) procedures in that deferral item, the DMI control number given by Maintenance, the MEL category of the discrepancy, the actions taken {(M) or (O) procedure}, a statement that a duplicate entry has been made in the MEL Deferred Item Log, any restrictions to flight required by the MEL, the date, airframe total time, the person's name making the entry, and their certificate number. NOTE: See Sample Log Entries below.

Upon discovery of a defect or malfunction of equipment before, during, or after a flight, the Pilot in Command will enter a concise description in the Aircraft Maintenance Log, along with name and date. If an item becomes unusable or malfunctions during flight, the PIC will contact Maintenance via radio and determine if the aircraft should continue to its destination or return to base. If unable to contact via radio, the PIC shall, if in his opinion the trip can be made safely, continue to his destination then contact Maintenance via telephone. **There will be NO MEL deferrals without approval from the Director of Maintenance or his designee.**

The Pilot in Command will contact the Director of Maintenance or his designee, at the earliest opportunity, and the Deferred Maintenance Item (DMI) Control Number and other pertinent data will be given to the pilot by Maintenance. If this procedure is used, the Pilot in Command will enter a Corrective Action and DMI number in the column adjacent the discrepancy. When the aircraft returns to base, the DOM or his designee will write "Deferral Approved" and sign and date the entry in the corrective action column. Company policy dictates that multiple deferred items are not authorized without specific approval from the DOM or his designee.

All items deferred must be placarded with a sticker. The sticker will have the DMI Control Number entered by the PIC or mechanic and will be installed on or near the inoperative instrument or control switch.

Any deferred items that contain an "(O)" procedure in the remarks column of the MEL will require that the Pilot in Command perform or comply with the "(O)" procedure during the flight, or before the flight with approval from the DOM or his designee.

Deferred Maintenance Items Procedure

Deferred items that contain an "(M)" procedure in the remarks column of the MEL will require that the Director of Maintenance make provisions for an authorized person to perform the "(M)" procedure and record the action in the Aircraft Maintenance Log "Corrective Action" column. The mechanic will then enter the discrepancy and the action taken in the MEL Deferred Item Log by affixing his signature and certificate number. The deferred discrepancy will remain aboard the aircraft in the Deferred Item Log until corrective action is taken. When the discrepancy is cleared, the mechanic will make an entry in the MEL Deferred Item Log detailing actions taken, part number and serial number (if applicable), and affix his signature and certificate number to certify correct completion of the actions.

When a discrepancy has been assigned a DMI Control Number a copy of the Aircraft MEL Deferred Item Log will be made, sent to and kept in an "Open" file by the Director of Maintenance. The Director of Maintenance (or designee) will review this file daily.

This method provides for tracking the time and date the items were deferred and supervisory review of the items deferred.

It will be the responsibility of the Director of Maintenance to review the daily status and categories and provide for a timely repair of all A, B, C, and D category items within the proper specified times as listed in the MEL and the approved Operation's Specifications.

Upon receipt of the necessary parts, the Director of Maintenance will schedule the aircraft and the maintenance personnel to facilitate the most efficient repair or replacement of the DMI.

If it is determined that the applicable interval for repair will be exceeded due to parts availability, weather, etc. the DOM or his designee will prepare a Deferral Extension Authorization letter and forward to the jurisdictional FSDO within twenty-four (24) hours before the deadline has passed. The form will indicate the amount of time extension which is needed. **"A" and "D" items shall NOT be extended.**

After corrective action is taken to clear a deferred item, the person effecting the repair will make an entry in the Corrective Action column of the MEL Deferred Item Log, across from the respective deferred item, describing the corrective action taken and affix his/her signature and certificate number in the appropriate block. That person will then make a copy of that page of the MEL Deferred Item Log and attach it to the most recent Aircraft Maintenance Log page. This copy becomes part of the permanent aircraft record and serves as documentation of corrective actions taken on deferred items.

Sample Deferral Entry [Aircraft Maintenance Log] - (Mechanic)

Ex. Discrepancy:
Directional Gyro Inoperative

Ex. Deferral:
Deferred discrepancy referencing Sundance Helicopters Minimum Equipment List, Revision 7 dated 09/01/06. DMI # 15. MEL 34-1-3. Category C. Placard installed. Duplicate discrepancy entered in Aircraft DMI Log. This aircraft is restricted to Day VFR Operations. 02/23/97, Airframe Total Time, John Doe, A&P 535554789.

Sample Entry to clear a deferred discrepancy [MEL Deferred Item Log] - (Mechanic)

Removed Inoperative Directional Gyro, part number, serial number. Installed Overhauled Directional Gyro, part number, serial number, purchase order number. Work accomplished referencing (applicable maintenance or technical instruction). Operational check of system good. Removed placard. DMI # 15 Cleared. 02/25/97, Airframe Total Time, John Doe, A&P 535554789

Sample Deferral Entry [Aircraft Maintenance Log] - (Pilot)

Deferred discrepancy in accordance with instructions from maintenance, authorized by John Doe (Mechanic), referencing Sundance Helicopters Minimum Equipment List, Revision 7 dated 09/01/06. DMI # 15. MEL 34-1-3. Category C. Placard installed. Duplicate discrepancy entered in Aircraft DMI Log. This aircraft is restricted to Day VFR Operations. 02/23/97, Airframe Total Time, Robert Smith, Comm 2043397

System & Sequence Numbers	Item	1.	2. Number Installed	3. Number Required For Dispatch	4. Remarks Or Exceptions
21	AIR CONDITIONING				
1.	Fresh Air Vent	C	1	0	May be Inoperative
2.	Bleed Air Heater Control Valve	C	1	0	(O) May be inoperative provided demister is verified operative and procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with. **Operations Procedure:** a) Insure demister is operative by turning on demister valve and checking airflow from vent, and listening for audible sounds of rushing air
3.	Air Conditioner (Freon)	C	1	0	(M) May be inoperative provided system is deactivated and secured and procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with. **Maintenance Procedure:** a) Inspect pump for condition and security of attachment. b) Rotate system by hand to insure drive system is not restricted, and that clutch is disengaged. c) If drive system restricted, remove belt. d) Inspect all blowers for condition and security of attachment. e) Pull and collar circuit breakers to de-activate system. f) Placard air conditioning switch "inop."

System & Sequence Numbers	Item	1.	2. Number Installed	3. Number Required For Dispatch	4. Remarks Or Exceptions
23	COMMUNICATIONS				
1.	Communications system (FM, UHF, VH and HF)	C	2*	0	Any in excess of those required by FAR may be inoperative provided it is not powered by the Emergency AC Bus, Emergency DC Bus, Battery Bus, Battery Direct Bus, or the DC Transfer Bus and not required for emergency procedures and procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with. NOTE: May be inoperative for flights in Class G airspace only. *A portion of the fleet is equipped with 2 FM radios *A portion of the fleet is equipped with 2 VHF radios
2.	Cabin ICS System	B	1	0	(O) May be inoperative provided alternate, normal and emergency procedures, and/or operating restrictions are established and used, and procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with. **Operations Procedure:** Pilot will insure Cabin ICS System is operative or conduct normal and emergency communications in a louder than normal voice.
		C	1	0	May be inoperative for **non passenger carrying operations** provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.

System & Sequence Numbers	1. Item		2. Number Installed	3. Number Required For Dispatch	4. Remarks Or Exceptions
24	ELECTRICAL POWER				
1.	Generator Caution System	B	1	0	May be inoperative provided ammeter is operative and procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.

System & Sequence Numbers	Item	1.	2. Number Installed	3. Number Required For Dispatch	4. Remarks Or Exceptions
25	EQUIPMENT& FURNISHINGS				
1.	Crew Member Shoulder Harness	B	1	1	Pilot shoulder harness must be Operative.
2.	Passenger Seat Belts	C	6	0	One required for each occupied seat. If belt is inoperative or missing, seat must be blocked and placarded and provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.
3.	Passenger Shoulder Harness	C	6*	0	One seat belt required for each occupied seat. If belt or installed shoulder harness is inoperative or missing, seat must be blocked and placarded and provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with * A portion of the fleet has no passenger shoulder harnesses
4.	Cargo Suspension System	C	1*	0	May be inoperative provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with. * A portion of the fleet has no Cargo Suspension System installed
5.	Emergency Locator Transmitter (ELT)				May be inoperative provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with, and;
	a. Fixed ELTs	A	1	0	(M) May be inoperative provided: a) System is deactivated, and b) Repairs are made within 90 days.
		A	1	0	May be missing provided repairs are made within 90 days

System & Sequence Numbers	1. Item		2. Number Installed	3. Number Required For Dispatch	4. Remarks Or Exceptions
25	EQUIPMENT& FURNISHINGS				
6.	Electronic News Gathering Equipment	C	1	0	(M) May be inoperative provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with. **Maintenance Procedure:** a) Pull and collar associated circuit breakers to de-activate system. b) Placard associated switch or switches "inop."
7.	Non-Essential Equipment & Furnishings Refer to Nonessential Equipment and Furnishings List for applicable items, repair time limits, and applicable procedures.				May be inoperative, damaged, or missing provided that the item(s) is deferred in accordance with the Sundance Helicopters NEF Deferral program. The NEF program, list, procedure, and processes are outlined in the Sundance Helicopters NEF Program included as Appendix A to this MEL. The NEF List is separately maintained and included in onboard aircraft documentation. (M) and (O) procedures, if required, are included in the NEF List.

System & Sequence Numbers	1. Item	2. Number Installed	3. Number Required For Dispatch	4. Remarks Or Exceptions
30	ICE & RAIN PROTECTION			
1.	Pitot Heater C	1	0	May be inoperative for VFR at outside air temperature (OAT) is above +4.5° C (40 ° F) with no visible moisture and provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with..

System & Sequence Numbers	1. Item		2. Number Installed	3. Number Required For Dispatch	4. Remarks Or Exceptions
31	INDICATING / RECORDING SYSTEMS				
1.	Clock, Displaying Hours, Minutes and Seconds, with Sweep Second Pointer or Electric Digital Clock.	C	1	1	Operative clock must be located on the instrument panel in a position that makes it plainly visible to and usable by any pilot at the pilot's station.
2.	Hour Meter	C	1	0	May be inoperative provided alternate means is utilized for recording time in service and procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with. **(O)** Pilot will use watch or clock to record time aircraft is in service.
3.	Aircraft/Engine Monitoring System.	C	1	0	May be inoperative provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.

System & Sequence Numbers	Item	1.	2. Number Installed	3. Number Required For Dispatch	4. Remarks Or Exceptions
33	LIGHTS				
1.	Position Light System	C	1	0	May be inoperative for day operations provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.
2.	Anti-Collision Light System	C	1	0	May be inoperative for day operations provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.
3.	Landing Light	C	1	0	May be inoperative provided: a) procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with b) Day VFR only; for hire passenger operations
4.	Cockpit / Flight Deck / Flight compartment and Instrument Lighting System	C	1	0	Individual lights may be inoperative provided remaining lights are: a) Sufficient to clearly illuminate all required instruments, controls, and other devices for which it is provided, b) Positioned so that direct rays are shielded from flight crewmembers eyes, and c) Lighting configuration and intensity is acceptable to the flight crew. d) procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.
5.	Cabin Lighting System	C	1	0	May be inoperative provided: a) For day operations. OR b) Inoperative lights do not exceed fifty (50) percent of the total installed, and; c) procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.
6.	Cockpit Utility Light	C	1	0	May be inoperative for day operations and provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.

System & Sequence Numbers	1. Item		2. Number Installed	3. Number Required For Dispatch	4. Remarks Or Exceptions
33	LIGHTS				
7.	Strobe Light System	C	--	0	May be inoperative provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.
8.	Taxi Light	C	1	0	May be inoperative provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.

System & Sequence Numbers	1. Item		2. Number Installed	3. Number Required For Dispatch	4. Remarks Or Exceptions
34	NAVIGATION				
1.	Gyroscopic Rate of Turn	C	1	0	May be inoperative for day or night VFR provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.
2.	Gyroscopic Bank and Pitch Indicator	C	1	0	May be inoperative for day VFR provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.
3.	Directional Gyro	C	1	0	May be inoperative for day VFR provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.
4.	Vertical Speed Indicator	C	1	0	May be inoperative for day or night VFR provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.
5.	ATC Transponder and Automatic Altitude Reporting Systems	B	1	0	May be inoperative provided: a) operations do not require its use, and b) prior to flight, approval is obtained from ATC facilities having jurisdiction over the planned route of flight, and c) procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.
		D	1	0	Any in excess of those required by FAR may be inoperative provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.
6.	Navigation Systems (VOR, ILS, ADF, Long-Range, GPS)	C	1	0	May be inoperative for day or night VFR provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.
7.	Altitude Encoder	C	1	0	May be inoperative for flights in Class D, E, & G airspace provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.

System & Sequence Numbers	1. Item	2. Number Installed	3. Number Required For Dispatch	4. Remarks Or Exceptions
52	DOORS			
1.	Door Warning System C	1	0	May be inoperative provided doors are verified closed and latched prior to flight and procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with. **(O)** Pilot will visually check and verify that all doors are closed and latched prior to flight.

System & Sequence Numbers	1. Item		2. Number Installed	3. Number Required For Dispatch	4. Remarks Or Exceptions
65	ROTORS				
1.	Rotor Brake System	C	1	0	May be inoperative provided a check is performed to determine the rotor disc is free and procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with. **(O)** Prior to each flight: a) Insure rotor brake handle is in Off position. b) Open Transmission cowlings. c) Rotate rotor system at least one full rotation d) Listen and visually check for drag or rubbing from the rotor brake and/or drive train. e) If any drag or rubbing from the rotor brake and/or drive train is found, system may NOT be deferred.

System & Sequence Numbers	1. Item		2. Number Installed	3. Number Required For Dispatch	4. Remarks Or Exceptions
77	ENGINE INDICATING				
1.	Tachometer, Dual Indicating (N2/Nr) (B1 and B2 model only)	B	1	0	N2 indicator may be inoperative provided N1 Tachometer and Engine Torque indicators are operative and procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with. (Nr must be operative)

APPENDIX A
NON ESSENTIAL EQUIPMENT AND FURNISHINGS (NEF)

SUNDANCE HELICOPTERS, INC.

MINIMUM EQUIPMENT LIST

EC-130B4 FLEET

This MEL has been revised in accordance with FAA EC-130 Master Minimum Equipment List
Revision: 2 Dated 05/08/08

Table of Contents

Log of Revisions

Revision #	Page Number(s)	Date	Initials
Original	All	4/26/06	
1	All	7/1/10	
2	Cover, II,III, 33-1	1/25/11	

CONTROL PAGE

This MEL has been revised in accordance with FAA EC-130 Master Minimum Equipment List Revision: 2 Dated: 05/08/08 And incorporates PL-025 R16, PL-76 R5, PL-120 R1

SYSTEM	PAGE	REV NO.	DATE	MMEL Rev.#	MMEL Page #
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Log of Revisions	II	2	1/25/11	2	II
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	V	1	1/7/10	6	V
	VI	1	1/7/10	6	VI
	VII	1	1/7/10	6	VII
	VIII	1	1/7/10		
Preamble	IX	1	1/7/10	2	XII
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MEL Management Program	XI	1	1/7/10	FAA APPROVED DATE: 02/08/2011 [redacted] LAS FSDO	
	XII	1	1/7/10		
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33	33-1	2	1/25/11	Original	33-1
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				1	34-2
52	52-1	1	1/7/10	Original	52-1
63	63-1	1	1/7/10	Original	63-1
Appendix A	A-i	1	1/7/10		

Definitions

1. System Definitions.
System numbers are based on the Air Transport Association (ATA) Specification and items are numbered sequentially.
a. "Item" (Column 1) means the equipment, system, component, or function listed in the "Item" column. Repair interval categories (A, B, C, and D) are listed on right side of column 1. Repair intervals are described in definition 22.

b. "Number Installed" (Column 2) is the number (quantity) of items normally installed in the aircraft. This number represents the aircraft configuration considered in developing this MMEL. Should the number be a variable (e.g., passenger cabin items) a number is not required.

c. "Number Required for Dispatch" (Column 3) is the minimum number (quantity) of items required for operation provided the conditions specified in Column 4 are met.

NOTE: Where the MMEL shows a variable number required for dispatch, the MEL must reflect the actual number required for dispatch or an alternate means of configuration control approved by the Administrator.

d. "Remarks or Exceptions" (Column 4) in this column includes a statement either prohibiting or permitting operation with a specific number of items inoperative, provisos (conditions and limitations) for such operation, and appropriate notes.

e. A vertical bar (change bar) in the margin indicates a change, addition or deletion in the adjacent text for the current revision of that page only. The change bar is dropped at the next MMEL revision.

2. "Airplane/Rotorcraft Flight Manual" (AFM/RFM) is the document required for type certification and approved by the responsible FAA Aircraft Certification Office. The FAA approved AFM/RFM for the specific aircraft is listed on the applicable Type Certificate Data Sheet.

3. "As required by FAR" means that the listed item is subject to certain provisions (restrictive or permissive) expressed in the Federal Aviation Regulations operating rules. The number of items required by the FAR must be operative. When the listed item is not required by FAR it may be inoperative for time specified by repair category. The term "14 CFR" may be substituted for "FAR" in MMELs or operator MELs.

4. Each inoperative item must be placarded to inform and remind the crewmembers and maintenance personnel of the equipment condition.

NOTE: To the extent practical, placards should be located adjacent to the control or indicator for the item affected; however, unless otherwise specified, placard wording and location will be determined by the operator.

5. "-" symbol in Column 2 and/or Column 3 indicates a variable number (quantity) of the item installed.

6. "Deleted" in the remarks column after a sequence item indicates that the item was previously listed but is now required to be operative if installed in the aircraft.

Definitions

7. As used in MMELs, "ER" refers to Extended Operations (ETOPS) of an airplane with operational approval to conduct ETOPS in accordance with the applicable regulations.

8. "Federal Aviation Regulations" (FAR) means the applicable portions of the Federal Aviation Act and Federal Aviation Regulations.

9. "Flight Day" means a 24 hour period (from midnight to midnight) either Universal Coordinated Time (UCT) or local time, as established by the operator, during which at least one flight is initiated for the affected aircraft.

10. "Icing Conditions" means an atmospheric environment that may cause ice to form on the aircraft (structural) or in the engine(s) (induction).

11. Alphabetical symbol in Column 4 indicates a proviso (condition or limitation) that must be complied with for operation with the listed item inoperative.

12. "Inoperative" means a system and/or component malfunction to the extent that it does not accomplish its intended purpose and/or is not consistently functioning normally within its approved operating limit(s) or tolerance(s).

13. "Notes:" in Column 4 provides additional information for crewmember or maintenance consideration. Notes are used to identify applicable material which is intended to assist with compliance, but do not relieve the operator of the responsibility for compliance with all applicable requirements. Notes are not a part of the provisos.

14. Inoperative components of an inoperative system: Inoperative items which are components of a system which is inoperative are usually considered components directly associated with and having no other function than to support that system. (Warning/caution systems associated with the inoperative system must be operative unless relief is specifically authorized per the MMEL).

15. "(M)" symbol indicates a requirement for a specific maintenance procedure which must be accomplished prior to operation with the listed item inoperative. Normally these procedures are accomplished by maintenance personnel; however, other personnel may be qualified and authorized to perform certain functions. Procedures requiring specialized knowledge or skill, or requiring the use of tools or test equipment should be accomplished by maintenance personnel. The satisfactory accomplishment of all maintenance procedures, regardless of who performs them, is the responsibility of the operator. Appropriate procedures are required to be published as part of the operator's manual or MEL.

16. "(O)" symbol indicates a requirement for a specific operations procedure which must be accomplished in planning for and/or operating with the listed item inoperative. Normally these procedures are accomplished by the flight crew; however, other personnel may be qualified and authorized to perform certain functions. The satisfactory accomplishment of all procedures, regardless of who performs them, is the responsibility of the operator. Appropriate procedures are required to be published as a part of the operator's manual or MEL.

NOTE: The (M) and (O) symbols are required in the operator's MEL unless otherwise authorized by the Administrator.

17. "Deactivated" and "Secured" means that the specified component must be put into an acceptable condition for safe flight. An acceptable method of securing or deactivating will be established by the operator.

18. "Visual Flight Rules" (VFR) is as defined in FAR Part 91. This precludes a pilot from filing an Instrument Flight Rules (IFR) flight plan.

19. "Visual Meteorological Conditions" (VMC) means the atmospheric environment is such that would allow a flight to proceed under the visual flight rules applicable to the flight. This does not preclude operating under Instrument Flight Rules.

20. "Visible Moisture" means an atmospheric environment containing water in any form that can be seen in natural or artificial light; for example, clouds, fog, rain, sleet, hail, or snow.

21. "Passenger Convenience Items" Deleted see NEF #30.

22. Repair Intervals: All users of an MEL approved under FAR 121, 125, 129 and 135 must effect repairs of inoperative systems or components, deferred in accordance with the MEL, at or prior to the repair times established by the following letter designators:

Category A. Items in this category shall be repaired within the time interval specified in the remarks column of the operator's approved MEL. For time intervals specified in "calendar days" or "flight days," the day the malfunction was recorded in the aircraft maintenance record/logbook is excluded. For all other time intervals (flights, flight legs, cycles, hours, etc), repair tracking begins at the point when the malfunction is deferred in accordance with the operator's approved MEL.

Category B. Items in this category shall be repaired within three (3) consecutive calendar days (72 hours), excluding the day the malfunction was recorded in the aircraft maintenance record/logbook. For example, if it were recorded at 10 a.m. on January 26th, the three day interval would begin at midnight the 26th and end at midnight the 29th.

Category C. Items in this category shall be repaired within ten (10) consecutive calendar days (240 hours), excluding the day the malfunction was recorded in the aircraft maintenance record/logbook. For example, if it were recorded at 10 a.m. on January 26th, the 10 day interval would begin at midnight the 26th and end at midnight February 5th.

Category D. Items in this category shall be repaired within one hundred and twenty (120) consecutive calendar days (2880 hours), excluding the day the malfunction was recorded in the aircraft maintenance log and/or record. The letter designators are inserted adjacent to Column 2.

An operator who has the authorization to use an MEL also has the authority to approve extensions to the maximum repair interval for category B and C items provided the responsible Flight Standards District Office (FSDO) is notified within 24 hours of the MEL extension. The operator is not authorized to extend A and D items in the MEL. Misuse of the MEL extension authority may result in the operators OpSpecs/Mspecs being amended by removing the authority for the operator to use the MEL extension authority and/or use an MEL.

23. Electronic fault alerting system – General New generation aircraft display system fault indications to the flight crew by use of computerized display systems. Each aircraft manufacturer has incorporated individual design philosophies in determining the data that would be represented.

24. "Administrative control item" means an item listed by the operator in the MEL for tracking and informational purposes. It may be added to an operator's MEL by approval of the Principal Operations Inspector provided no relief is granted, or provided conditions and limitations are contained in an approved document (i.e. Structural Repair Manual, airworthiness directive, etc.). If relief other than that granted by an approved document is sought for an administrative control item, a request must be submitted to the Administrator. If the request results in review and approval by the FOEB, the item becomes an MMEL item rather than an administrative control item.

25. "***" symbol in Column 1 indicates an item which is not required by regulation but which may have been installed on some models of aircraft covered by this MMEL. This item may be included on the operator's MEL after the approving office has determined that the item has been installed on one or more of the operator's aircraft. The symbol, however, shall not be carried forward into the operator's MEL. It should be noted that neither this policy nor the use of this symbol provides authority to install or remove an item from an aircraft.

26. "Excess Items" means those items that have been installed that are redundant to the requirements of the FARs.

27. "Day of Discovery" is the calendar day an equipment/instrument malfunction was recorded in the aircraft maintenance log and or record. This day is excluded from the calendar days or flight days specified in the MMEL for the repair of an inoperative item of equipment. This provision is applicable to all MMEL items, i.e., categories "A, B, C, and D."

28. "Considered Inoperative", as used in the provisos means that item must be treated for dispatch, taxi and flight purposes as though it were inoperative. The item shall not be used or operated until the original deferred item is repaired. Additional actions include: documenting the item on the dispatch release (if applicable), placarding, and complying with all remarks, exceptions, and related MMEL provisions, including any (M) and (O) procedures and observing the repair category.

29. " Is not used" in the provisos, remarks or exceptions for an MMEL item may specify that another item relieved in the MMEL "is not used." In such cases, crewmembers should not activate, actuate, or otherwise utilize that component or system under normal operations. It is not necessary for the operators to accomplish the (M) procedures associated with the item. However, operational requirements must be complied with, and an additional placard must be affixed, to the extent practical, adjacent to the control or indicator for the item that is not used to inform crewmembers that a component or system is not to be used under normal operations.

30. Nonessential equipment and furnishings (NEF) are those items installed on the aircraft as part of the original type certification, supplemental type certificate, or other form of alteration that have no effect on the safe operation of flight and would not be required by the applicable certification rules or operational rules. They are those items that if inoperative, damaged or missing have no effect on the aircraft's ability to be operated safely under all operational conditions. These nonessential items may be installed in areas including, but not limited to, the passenger compartment, flight deck area, service areas, cargo areas, crew

rest areas, lavatories, and galley areas. NEF items are not items already identified in the MEL or CDL of the applicable aircraft. They do not include items that are functionally required to meet the certification rule or for compliance with any operational rule. Operator's NEF process shall not provide for deferral of items within serviceable limits identified in the manufacturer's maintenance manual or operator's approved maintenance program such as wear limits, fuel/hydraulic leak rates, oil consumption, etc. Cosmetic items that are fully serviceable but worn or soiled may be deferred under an operator's NEF process.

31. As used in MMELs, Heavy Maintenance Visit (HMV) is a scheduled C-check/D-check or airworthiness maintenance program inspection where the aircraft is scheduled to be out of service for 4 or more days.

Preamble
(Effective 6/14/89)

The following is applicable for authorized certificate holders operating under Federal Aviation Regulations (FAR) Parts 121, 125, 129, 135: The FAR require that all equipment installed on an aircraft in compliance with the Airworthiness Standards and the Operating Rules must be operative. However, the Rules also permit the publication of a Minimum Equipment List (MEL) where compliance with certain equipment requirements is not necessary in the interests of safety under all operating conditions. Experience has shown that with the various levels of redundancy designed into aircraft, operation of every system or installed component may not be necessary when the remaining operative equipment can provide an acceptable level of safety. A Master Minimum Equipment List (MMEL) is developed by the FAA, with participation by the aviation industry, to improve aircraft utilization and thereby provide more convenient and economic air transportation for the public. The FAA approved MMEL includes those items of equipment related to airworthiness and operating regulations and other items of equipment which the Administrator finds may be inoperative and yet maintain an acceptable level of safety by appropriate conditions and limitations; it does not contain obviously required items such as wings, flaps, and rudders. The MMEL is the basis for development of individual operator MELs which take into consideration the operator's particular aircraft equipment configuration and operational conditions. Operator MELs, for administrative control, may include items not contained in the MMEL; however, relief for administrative control items must be approved by the Administrator. An operator's MEL may differ in format from the MMEL, but cannot be less restrictive than the MMEL. The individual operator's MEL, when approved and authorized, permits operation of the aircraft with inoperative equipment. Equipment not required by the operation being conducted and equipment in excess of FAR requirements are included in the MEL with appropriate conditions and limitations. The MEL must not deviate from the Aircraft Flight Manual Limitations, Emergency Procedures or with Airworthiness Directives. It is important to remember that all equipment related to the airworthiness and the operating regulations of the aircraft not listed on the MMEL must be operative.

Suitable conditions and limitations in the form of placards, maintenance procedures, crew operating procedures and other restrictions as necessary are specified in the MEL to ensure that an acceptable level of safety is maintained.

The MEL is intended to permit operation with inoperative items of equipment for a period of time until repairs can be accomplished. It is important that repairs be accomplished at the earliest opportunity. In order to maintain an acceptable level of safety and reliability the MMEL establishes limitations on the duration of and conditions for operation with inoperative equipment. The MEL provides for release of the aircraft for flight with inoperative equipment. When an item of equipment is discovered to be inoperative, it is reported by making an entry in the Aircraft Maintenance Record/Logbook as prescribed by FAR. The item is then either repaired or may be deferred per the MEL or other approved means acceptable to the Administrator prior to further operation. MEL conditions and limitations do not relieve the operator from determining that the aircraft is in condition for safe operation with items of equipment inoperative.

When these requirements are met, an Airworthiness Release, Aircraft Maintenance Record/Logbook entry, or other approved documentation is issued as prescribed by FAR. Such documentation is required prior to operation with any item of equipment inoperative.

Preamble
(Effective 6/14/89)

Operators are responsible for exercising the necessary operational control to ensure that an acceptable level of safety is maintained. When operating with multiple inoperative items, the interrelationships between those items and the effect on aircraft operation and crew workload will be considered.

Operators are to establish a controlled and sound repair program including the parts, personnel, facilities, procedures, and schedules to ensure timely repair.

WHEN USING THE MEL, COMPLIANCE WITH THE STATED INTENT OF THE PREAMBLE, DEFINITIONS, AND THE CONDITIONS AND LIMITATIONS SPECIFIED IN THE MEL IS REQUIRED.

Guidelines for (O) & (M) Procedures

ATA 34
34.4 (O) Procedure to insure current aeronautical charts are used to verify Navigation fixes, Procedure to verify status and suitability of Navigational Facilities, and procedure to insure navigation radios are manually tuned and identified.

52.1 (O) Procedure to verify doors are closed and secured prior to flight.

ATA 63
63.1 (M) Procedure to insure rotor disc is free.
(O) Procedure to insure rotor disc is free.

MEL Management Program

The Director of Maintenance is responsible for managing the Authorized Minimum Equipment List Program in its entirety for all company aircraft that have an approved FAA MEL. The DOM will exercise the necessary operational control to insure that a high level of safety is maintained. The DOM has the authority to delegate the management (but maintains the responsibility) of the MEL program to qualified personnel who hold FAA Airframe and Powerplant Certificates.

Mechanical Discrepancies

The Pilot in Command shall enter or have entered in the discrepancy section of the Aircraft Maintenance Log all mechanical irregularities that come to his attention before, during, and after completion of the flight. It shall be the Pilot in Command's responsibility to ensure that any mechanical discrepancies entered in the Aircraft Maintenance Log has either been corrected or properly deferred by an appropriately qualified mechanic before operation of the aircraft. No discrepancy may be deferred without the approval of the DOM or his designee.

Deferred Maintenance

An aircraft must have all installed equipment operational or deferred in order to operate within the type certificate issued for that aircraft. In order for an operator to secure relief from this requirement the FAA can authorize the use of a Minimum Equipment List which will allow for operations with certain inoperable installed equipment.

The inoperative equipment must not present a lower level of safety by virtue of being inoperative. Those items marked with an (O) are those items identified as requiring an operational procedure to be complied with prior to operation of the aircraft. Those items marked with an (M) are those items identified as requiring a maintenance procedure to be complied with prior to operation of the aircraft.

The FAA has established time intervals in which deferred items must be repaired within. These items are identified by the letter A, B, C, or D in column 1. of the MEL.

An "A" item shall be repaired within the time interval specified in the remarks column of the operator's approved MEL. **For time intervals specified in "calendar days" or "flight days," the day the malfunction was recorded in the aircraft maintenance record/logbook is excluded. For all other time intervals (flights, flight legs, cycles, hours, etc), repair tracking begins at the point when the malfunction is deferred in accordance with the operator's approved MEL.**

A "B" item shall be repaired within three (3) consecutive calendar days (72 hours), excluding the day the malfunction was recorded in the aircraft maintenance record/logbook. For example, if it were recorded at 10 a.m. on January 26th, the three day interval would begin at midnight the 26th and end at midnight the 29th.

A "C" item shall be repaired within ten (10) consecutive calendar days (240 hours), excluding the day the malfunction was recorded in the aircraft maintenance record/logbook. For example, if it were recorded at 10 a.m. on January 26th, the 10 day interval would begin at midnight the 26th and end at midnight February 5th.

Deferred Maintenance Items Procedure

A "D" item shall be repaired within one hundred and twenty (120) consecutive calendar days (2880 hours), excluding the day the malfunction was recorded in the aircraft maintenance log and/or record. The letter designators are inserted adjacent to Column 2.

Deferred Maintenance Items Procedure

When any item of installed equipment or instrumentation becomes inoperative the Pilot in Command (PIC) will record the discrepancy in the Aircraft Maintenance Log in accordance with the following procedures:

The Pilot in Command will report the discrepancy to Maintenance. The Director of Maintenance (or designee) will review and defer the discrepancy if acceptable by the approved MEL. The Director of Maintenance (or designee) will authorize the next deferred maintenance item (DMI) control number from the deferred item log that is to be used for the discrepancy.

In the Corrective Action Column across from the discrepancy, the pilot or mechanic will record that the discrepancy has been deferred in accordance with instructions from maintenance, by whom the deferral was authorized, the position of that person (i.e. Mechanic or Pilot), a reference to the MEL sequence number allowing the deferral and compliance with any (M) or (O) procedures in that deferral item, the DMI control number given by Maintenance, the MEL category of the discrepancy, the actions taken {(M) or (O) procedure}, a statement that a duplicate entry has been made in the MEL Deferred Item Log, any restrictions to flight required by the MEL, the date, airframe total time, the person's name making the entry, and their certificate number. NOTE: See Sample Log Entries below.

Upon discovery of a defect or malfunction of equipment before, during, or after a flight, the Pilot in Command will enter a concise description in the Aircraft Maintenance Log, along with name and date. If an item becomes unusable or malfunctions during flight, the PIC will contact Maintenance via radio and determine if the aircraft should continue to its destination or return to base. If unable to contact via radio, the PIC shall, if in his opinion the trip can be made safely, continue to his destination then contact Maintenance via telephone. **There will be NO MEL deferrals without approval from the Director of Maintenance or his designee.**

The Pilot in Command will contact the Director of Maintenance or his designee, at the earliest opportunity, and the Deferred Maintenance Item (DMI) Control Number and other pertinent data will be given to the pilot by Maintenance. If this procedure is used, the Pilot in Command will enter a Corrective Action and DMI number in the column adjacent the discrepancy. When the aircraft returns to base, the DOM or his designee will write "Deferral Approved" and sign and date the entry in the corrective action column. Company policy dictates that multiple deferred items are not authorized without specific approval from the DOM or his designee.

All items deferred must be placarded with a sticker. The sticker will have the DMI Control Number entered by the PIC or mechanic and will be installed on or near the inoperative instrument or control switch.

Any deferred items that contain an "(O)" procedure in the remarks column of the MEL will require that the Pilot in Command perform or comply with the "(O)" procedure during the flight, or before the flight with approval from the DOM or his designee.

Deferred Maintenance Items Procedure

Deferred items that contain an "(M)" procedure in the remarks column of the MEL will require that the Director of Maintenance make provisions for an authorized person to perform the "(M)" procedure and record the action in the Aircraft Maintenance Log "Corrective Action" column. The mechanic will then enter the discrepancy and the action taken in the MEL Deferred Item Log by affixing his signature and certificate number. The deferred discrepancy will remain aboard the aircraft in the Deferred Item Log until corrective action is taken. When the discrepancy is cleared, the mechanic will make an entry in the MEL Deferred Item Log detailing actions taken, part number and serial number (if applicable), and affix his signature and certificate number to certify correct completion of the actions.

When a discrepancy has been assigned a DMI Control Number a copy of the Aircraft MEL Deferred Item Log will be made, sent to and kept in an "Open" file by the Director of Maintenance. The Director of Maintenance (or designee) will review this file daily.

This method provides for tracking the time and date the items were deferred and supervisory review of the items deferred.

It will be the responsibility of the Director of Maintenance to review the daily status and categories and provide for a timely repair of all A, B, C, and D category items within the proper specified times as listed in the MEL and the approved Operation's Specifications.

Upon receipt of the necessary parts, the Director of Maintenance will schedule the aircraft and the maintenance personnel to facilitate the most efficient repair or replacement of the DMI.

If it is determined that the applicable interval for repair will be exceeded due to parts availability, weather, etc. the DOM or his designee will prepare a Deferral Extension Authorization letter and forward to the jurisdictional FSDO within twenty-four (24) hours before the deadline has passed. The form will indicate the amount of time extension which is needed. **"A" and "D" items shall NOT be extended.**

After corrective action is taken to clear a deferred item, the person effecting the repair will make an entry in the Corrective Action column of the MEL Deferred Item Log, across from the respective deferred item, describing the corrective action taken and affix his/her signature and certificate number in the appropriate block. That person will then make a copy of that page of the MEL Deferred Item Log and attach it to the most recent Aircraft Maintenance Log page. This copy becomes part of the permanent aircraft record and serves as documentation of corrective actions taken on deferred items.

Sample Deferral Entry [Aircraft Maintenance Log] - (Mechanic)

Ex. Discrepancy:
Directional Gyro Inoperative

Ex. Deferral:
Deferred discrepancy referencing Sundance Helicopters Minimum Equipment List, Revision 7 dated 09/01/06. DMI # 15. MEL 34-1-3. Category C. Placard installed. Duplicate discrepancy entered in Aircraft DMI Log. This aircraft is restricted to Day VFR Operations. 02/23/97, Airframe Total Time, John Doe, A&P 535554789.

Sample Entry to clear a deferred discrepancy [MEL Deferred Item Log] - (Mechanic)

Removed Inoperative Directional Gyro, part number, serial number. Installed Overhauled Directional Gyro, part number, serial number, purchase order number. Work accomplished referencing (applicable maintenance or technical instruction). Operational check of system good. Removed placard. DMI # 15 Cleared. 02/25/97, Airframe Total Time, John Doe, A&P 535554789

Sample Deferral Entry [Aircraft Maintenance Log] - (Pilot)

Deferred discrepancy in accordance with instructions from maintenance, authorized by John Doe (Mechanic), referencing Sundance Helicopters Minimum Equipment List, Revision 7 dated 09/01/06. DMI # 15. MEL 34-1-3. Category C. Placard installed. Duplicate discrepancy entered in Aircraft DMI Log. This aircraft is restricted to Day VFR Operations. 02/23/97, Airframe Total Time, Robert Smith, Comm 2043397

System & Sequence Numbers	1. Item		2. Number Installed	3. Number Required For Dispatch	4. Remarks Or Exceptions
21	AIR CONDITIONING				
1.	Air Conditioner	C	1	0	(M) May be inoperative provided system is deactivated and secured and procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with. **Maintenance Procedure:** a) Inspect pump for condition and security of attachment. b) Rotate system by hand to insure drive system is not restricted, and that clutch is disengaged. c) If drive system restricted, remove belt. d) Inspect all blowers for condition and security of attachment. e) Pull and collar circuit breakers to de-activate system. f) Placard air conditioning switch "inop."
2.	Heating-Demister	C	1	0	May be inoperative provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with, the OAT is greater than +4.5 degrees Celsius, and no visible moisture is present.

System & Sequence Numbers	1. Item	2. Number Installed	3. Number Required For Dispatch	4. Remarks Or Exceptions
23	COMMUNICATIONS			
1.	Communications system (FM, UHF, VH and HF) C	2	0	Any in excess of those required by FAR may be inoperative provided it is not powered by the Emergency AC Bus, Emergency DC Bus, Battery Bus, Battery Direct Bus, or the DC Transfer Bus and not required for emergency procedures and procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with. I **NOTE:** May be inoperative for flights in Class G airspace only

System & Sequence Numbers	1. Item		2. Number Installed	3. Number Required For Dispatch	4. Remarks Or Exceptions
25	EQUIPMENT& FURNISHINGS				
1.	Passenger Seat Belts or Front Seat Harness	C	7	0	One seat belt required for each occupied seat. If belt or installed shoulder harness is inoperative or missing, seat must be blocked and placarded.
2.	Cargo Sling Load Indicator	C	1	0	May be inoperative provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.
4.	Emergency Locator Transmitter (ELT)				
	a. Fixed ELTs	A	1	0	(M) May be inoperative provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with, and: a) System is deactivated, and b) Repairs are made within 90 days.
		A	1	0	May be missing provided repairs are made within 90 days
5.	Non-Essential Equipment & Furnishings (NEF)		-	-	May be inoperative, damaged, or missing provided that the item(s) is deferred in accordance with the Sundance Helicopters NEF Deferral program. The NEF program, list, procedures, and processes are outlined in the Sundance Helicopters NEF Program included as Appendix A to this MEL. The NEF List is separately maintained and included in onboard aircraft documentation. (M) and (O) procedures, if required, are included in the NEF List.

System & Sequence Numbers	1. Item	2. Number Installed	3. Number Required For Dispatch	4. Remarks Or Exceptions
28	FUEL SYSTEM			
1.	Low Fuel Level Indicator B	1	0	May be inoperative provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with. **(O)** Before beginning a flight, the pilot will add a known quantity of fuel. This quantity will be, at a minimum, enough to complete the flight leg plus 20 minutes at normal cruise.

System & Sequence Numbers	1. Item	2. Number Installed	3. Number Required For Dispatch	4. Remarks Or Exceptions
30	ICE & RAIN PROTECTION			
1.	Pitot Heat C	1	0	May be inoperative provided outside air temperature (OAT) is above +4.5° C (40 ° F) with no visible moisture, aircraft is not operated into known or forecast icing conditions, and procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.

System & Sequence Numbers	1. Item		2. Number Installed	3. Number Required For Dispatch	4. Remarks Or Exceptions
31	INDICATING / RECORDING SYSTEMS				
1.	Clock	C	1	0	May be inoperative provide alternate means is utilized for recording time and procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with. **(O)** Pilot will use watch to record time.
2.	VEMD Screen	B	2	1	One may be inoperative provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.
3.	Digital NR Indicator	C	1	0	May be inoperative provided analog NR indicator is operative and procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.
4.	Nf Indicator	C	1	0	May be inoperative provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.

1. Sequence Numbers	Item		2. Number Installed	3. Number Required For Dispatch	4. Remarks Or Exceptions
33	LIGHTS				
1.	Position Light System	C	1	0	May be inoperative for day operations provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.
2.	Anti-Collision Light System	B	1	0	May be inoperative for day operations provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with
3.	Landing Light	C	1	0	May be inoperative for day operations provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.
4.	Cockpit Utility Lights	C	1	0	May be inoperative for day operations provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.
5.	Cockpit Instrument Panel and Console Lighting System	C	1	0	Individual lights may be inoperative provided the remaining lights are: a) Sufficient to clearly illuminate all required instruments, controls, and other devices which it is provided for, b) Positioned so that direct rays are shielded from flight crew-members eyes, c) Lighting configuration and intensity is acceptable to the flight crew, and d) Procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.

System & Sequence Numbers	1. Item		2. Number Installed	3. Number Required For Dispatch	4. Remarks Or Exceptions
34	NAVIGATION				
1.	Gyroscopic Bank and Pitch Indicator	C	1	0	May be inoperative for day VFR provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.
2.	Directional Gyro	C	1	0	May be inoperative for day VFR provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.
3.	Navigation Systems (VOR, ILS, ADF, Long-Range, GPS)	C	1	0	May be inoperative for day or night VFR provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.
4.	Not Used				
5.	ATC Transponders and Automatic Altitude reporting systems	B	1	0	May be inoperative provided: a) operations do not require its use, and b) prior to flight, approval is obtained from ATC facilities having jurisdiction over the planned route of flight, and c) procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.
		D	1	0	Any in excess of those required by FAR may be inoperative provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.
6.	Vertical Speed Indicator	C	1	0	May be inoperative for day or night VFR provided procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with.

System & Sequence Numbers	Item	1.	2. Number Installed	3. Number Required For Dispatch	4. Remarks Or Exceptions
52	DOORS				
1.	Door Warning System	C	1	0	May be inoperative provided doors are verified closed and secured prior to flight and procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with. **(O)** Pilot will visually check and verify that all doors are closed and secured prior to flight.

SUNDANCE HELICOPTERS, INC.			MINIMUM EQUIPMENT LIST	
Acrft: **EC-130B4 FLEET**			Revision No: 1` Date: 01/07/10	Page: 63-1
System & Sequence Numbers	1. Item	2. Number Installed	3. Number Required For Dispatch	4. Remarks Or Exceptions
63	MAIN ROTOR DRIVE			
1.	Rotor Brake System C	1	0	May be inoperative provided a check is performed to determine the rotor disc is free and procedures of the MEL Management Program on pages XI-XIV of this MEL are complied with. **(M)** Prior to the first flight of the day: a) Install servicing platform or equivalent b) Open left hand main gearbox cowling c) Make sure the rotor brake is released d) Inspect rotor brake area to insure there is no debris present e) Rotate rotor system at least one full rotation f) Listen and visually check for drag or rubbing from the rotor brake and/or drive train. g) Placard aircraft as "Rotor Brake Inop" h) If any drag or rubbing from the rotor brake and/or drive train is found, system may NOT be deferred. **(O)** Prior to each flight: a) Insure rotor brake handle is in Off position. b) Open Transmission cowlings. c) Rotate rotor system at least one full rotation d) Listen and visually check for drag or rubbing from the rotor brake and/or drive train. e) If any drag or rubbing from the rotor brake and/or drive train is found, system may NOT be deferred.

APPENDIX A
NON ESSENTIAL EQUIPMENT AND FURNISHINGS (NEF)

Appendix A to MEL
Sundance Helicopters, Inc.

Part 135 Nonessential Equipment and Furnishings (NEF) Program

Revision: 1
January 25, 2011

List of Effective Pages

Page Number	Revision #	Date of Revision
A- i	1	1/25/11
A-ii	1	1/25/11
A-iii	Original	1/7/10
A-1	Original	1/7/10
A-2	Original	1/7/10
A-3	Original	1/7/10
A-4	Original	1/7/10
A-5	Original	1/7/10
A-6	Original	1/7/10
A-7	Original	1/7/10
A-8	Original	1/7/10
A-9	1	1/25/11
A-10	Original	1/7/10
A-11	Original	1/7/10

FAA APPROVED
DATE: 02/08/2011
[redacted]
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Table of Contents

INTRODUCTION

Sundance Helicopters, Inc. has developed a Nonessential Equipment and Furnishings policy and procedures program.

Sundance Helicopters, Inc. operates its aircraft under FAR Part 135 operating rules.

NONESSENTIAL EQUIPMENT AND FURNISHINGS (NEF)

NEF are those items installed on the aircraft as part of the original type certification, supplemental type certificate, or other form of alteration that have no effect on the safe operation of flight and would not be required by the applicable certification rules or operational rules. They are those items that, if damaged, inoperative, or missing, have no effect on the aircraft's ability to be operated safely under all operational conditions. These nonessential items may be installed in areas including, but not limited to:

- Cockpit/Cabin Area
- Baggage Compartments

NEF PROGRAM

The Sundance Helicopters, Inc. NEF Program is as follows:

A. An NEF List has been developed and NEF Items are tracked through the use of the aircraft's Maintenance Log using the same processes and forms as the MEL program and are to be treated exactly as an MEL item.

B. The NEF List includes the following procedures for each NEF item as necessary:

- Maintenance (M) Procedure

"(M)" symbol indicates a requirement for a specific maintenance procedure which must be accomplished prior to operation with the listed item damaged, inoperative, or missing. Normally these procedures are accomplished by maintenance personnel; however, other personnel may be qualified and authorized to perform certain functions. Procedures requiring specialized knowledge or skill, or requiring the use of tools or test equipment should be accomplished by maintenance personnel. The satisfactory accomplishment of all maintenance procedures, regardless of who performs them, is the responsibility of the operator. Appropriate procedures are required to be published as part of the operator's NEF. Any "M" procedure requiring collaring a circuit breaker must utilize approved collars only.

- Operation (O) Procedure

"(O)" symbol indicates a requirement for a specific operations procedure which must be accomplished in planning for and/or operating with the listed item damaged, inoperative, or missing. Normally these procedures are accomplished by the flight crew; however, other personnel may be qualified and authorized to perform certain functions. The satisfactory accomplishment of all procedures, regardless of who performs them, is the responsibility of the operator. Appropriate procedures are required to be published as a part of the operator's NEF.

- Placarding (P) Procedure

"(P)" symbol indicates a requirement for a specific placarding procedure which must be accomplished in planning for and/or operating with the listed item damaged, inoperative, or missing. Normally these procedures are accomplished by maintenance personnel; however, other personnel may be qualified and authorized to perform certain functions. The satisfactory accomplishment of all procedures, regardless of who performs them, is the responsibility of the operator. Appropriate procedures are required to be published as a part of the operator's NEF.

C. The NEF Item evaluation process will include the following items:

- Is the item required for the operational rules in which the aircraft is operated and/or part of the Type Certification Process required items?
- Does it create the potential for fire/smoke or other hazardous conditions?
- Could it have an adverse effect on other required systems or components?
- Does its condition potentially affect the safety of crew, passengers, or service personnel?
- Could it have a negative impact on emergency or abnormal procedures?
- Does it create additional workload for the crew at critical times of flight or flight preparation?

Note: The above evaluation process must be accomplished for the damaged, missing, or inoperative item(s) at its face value, and also for the underlying cause of the discrepancy.

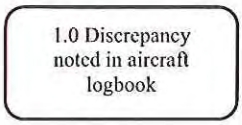
D. Repair and/or replacement of items listed in the NEF List are treated the same as Category D MEL items and repair and/or replacement is required within 120 calendar days from the date of discovery.

E. The NEF List and program description will be kept in the aircraft specific Minimum Equipment List (MEL) Binder.

F. If a discrepancy is discovered that is not covered by the aircraft's MEL or NEF List, the PIC, with the assistance and concurrence of the Director of Maintenance or his designee, may perform the NEF Item Process to determine if the discrepancy can be added to the NEF List. The discrepancy must meet the intent of the NEF Item Process or it will require the issue to be resolved before further flight. **Extreme caution must be used when using these processes to insure NO items are deferred that are not eligible under the NEF Program.**

NEF DECISION TREE DISCUSSION

1.0 Discrepancy noted in the aircraft Maintenance Log. The damaged, inoperative or missing item must be identified and documented in the aircraft Maintenance Log by:



1. PIC, or
2. Company maintenance personnel; or
3. Personnel authorized and approved to perform such functions.

2.0 Can the item be deferred in accordance with (IAW) the MEL?

1. If the damaged, inoperative, or missing item is listed in the MEL, then the deferral procedures for that item must be followed. If the item is a subcomponent of a primary system identified in the MEL, where no previous relief was authorized, the subcomponent may not be deferred in accordance with the NEF procedures outlined in chapter 25 of the MEL.

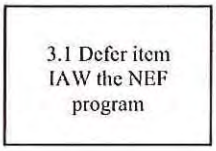
2.1 Follow MEL procedures.

1. If the item is identified in another part of the MEL, then the procedures approved for the deferral of such item must be followed.

3.0 Is item on the NEF deferral list?

1. Is the item on the NEF list? If yes, then follow the NEF deferral procedures in step 3.1. (Items that are not previously on the NEF list should proceed to step 4.0.)

3.1 Defer item IAW the NEF deferral program.



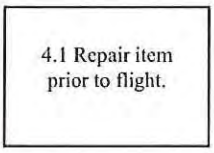
1. If the item is identified in the NEF deferral list, then the procedures approved for the deferral of such item shall be followed.

4.0 Does the item affect the safety of flight?

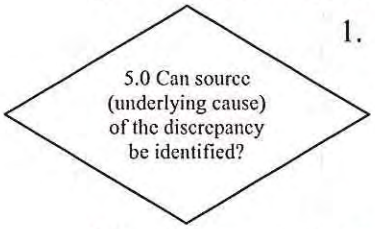
1. Is it obvious from a maintenance or operational perspective that the item, in and of itself, could have an adverse effect on the safe conduct of flight? If there is an obvious safety-of-flight issue, then the damaged, inoperative, or missing item may not be deferred and step 4.1 shall be followed.

4.1 Repair item prior to flight.

1. The item may not be deferred and must be repaired prior to flight.

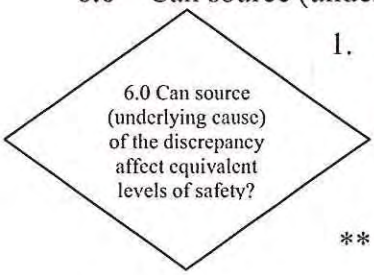


5.0 Can source (underlying cause) of the discrepancy be identified? (If applicable)



1. Can the source of the discrepancy be identified? This step may or may not apply to the item under consideration. If the source can be identified, then proceed to step 6.0, otherwise proceed to step 4.1.

6.0 Can source (underlying cause) of discrepancy affect equivalent levels of safety?

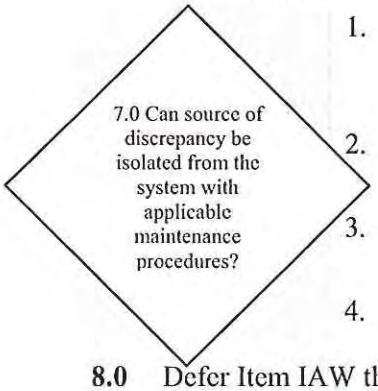


1. If the source (underlying cause) of the discrepancy affect equivalent levels of safety, then it must be determined if it can be isolated from all other systems so as to alleviate any safety concern.

** Note: In making this determination, very close coordination between the PIC, Maintenance and Operations personnel may be required.

2. If, after review, the source of the discrepancy could be considered a safety-of-flight concern, the item must be repaired prior to flight (step 4.1). If the source of the discrepancy is not a safety-of-flight concern then defer the item in accordance with the approved NEF procedures in step 8.0. If it cannot be determined, or is uncertain, that the source of the discrepancy is a safety-of-flight concern then proceed to 7.0.

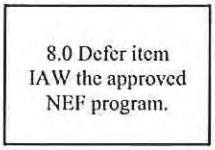
7.0 Can source (underlying cause) of discrepancy be isolated from the system with applicable maintenance procedures?



1. If applicable, the source (underlying cause) of the discrepancy must be isolated from all other systems so as to alleviate the safety-of-flight concern.
2. If the item cannot be safely isolated then the item must be repaired prior to flight (step 4.1).
3. If isolated, the isolation of the source must pass the entire test previously identified in the evaluative process (steps 4.0-7.0) for the item.
4. If source can be isolated then proceed to step 8.0.

8.0 Defer Item IAW the approved NEF program.

1. Defer the item if, after completing the previous 8 steps, the item can be deferred IAW the NEF program.



Note: Before an item can be deferred as an NEF item, the NEF program evaluation process shall be strictly followed to verify that the item is indeed considered an NEF. NEF items are not safety-of-flight items. They have not been evaluated through the normal AEG review process and therefore require the concurrence of the PIC, Maintenance, and Operational personnel, if applicable. NEF items are not deferred under the authority of an airframe and powerplant certificate but rather they are deferred under the NEF program.

The evaluation process should determine items such as:

a. Is the item required for the operational rules in which the aircraft is operated?

b. Does it create the potential for fire/smoke or other hazardous conditions?

c. Could it have an adverse effect on other required systems or components?

d. Does its condition potentially affect the safety of passengers, crew, or service personnel?

e. Could it have a negative impact on emergency or abnormal procedures?

f. Does it create additional workload for the crew at critical times of flight or flight preparation?

Note: The above evaluation process must be accomplished for the damaged, inoperative, or missing item at its face value, and also for the underlying cause of the discrepancy.

9.0 Update NEF deferral list as required.

9.0 Update NEF Deferral List as required.

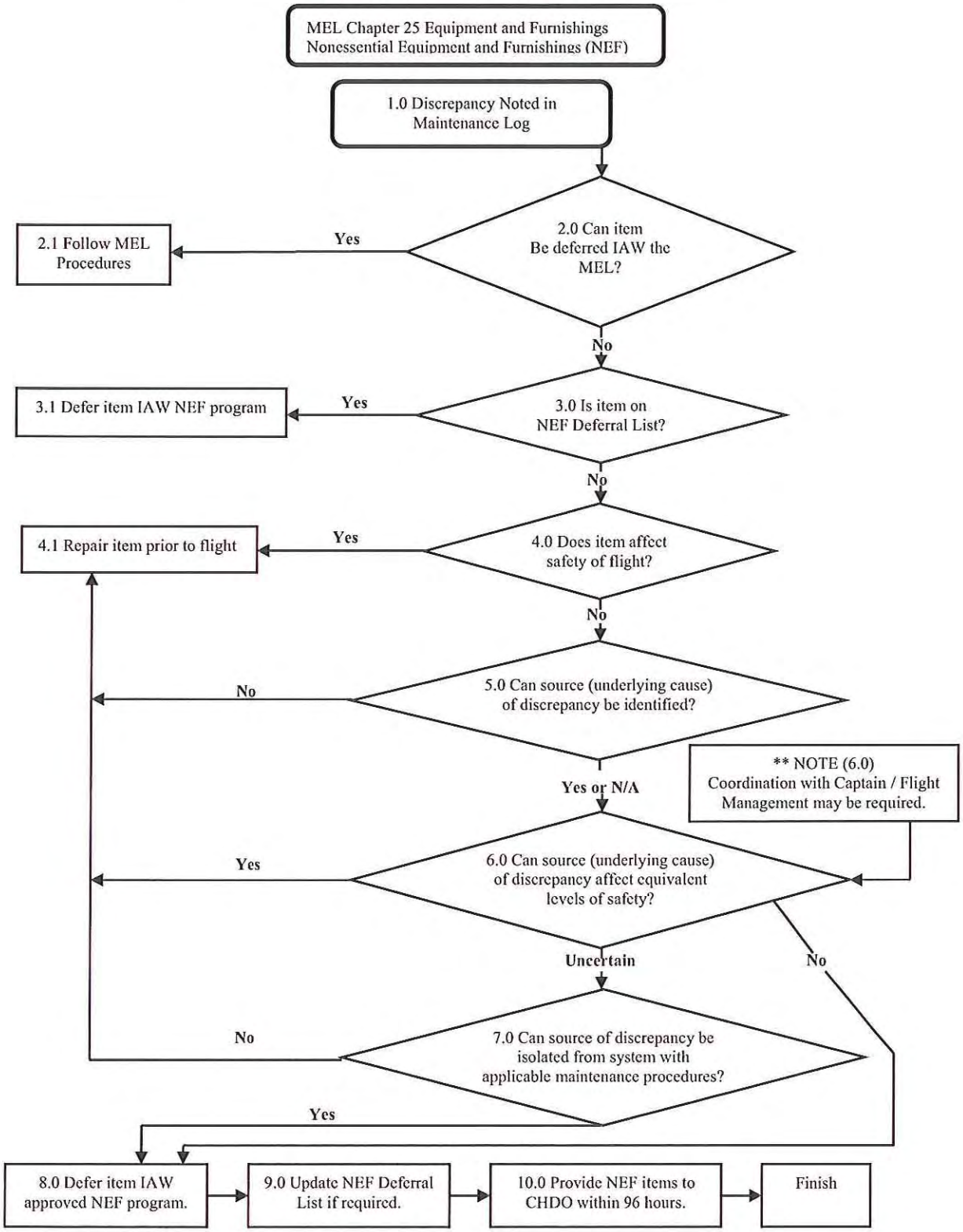
Sundance Helicopters, Inc. will continually add items to the NEF List as they see fit within the restrictions and parameters of the NEF Program. Sundance Helicopters, Inc. will control the NEF List and revise it accordingly.

10.0 Provide NEF Items to CHDO.

10.0 Provide NEF items to CHDO within 96 hours.

1. Sundance Helicopters, Inc. will provide the items placed in the NEF program to the CHDO within 96 hours of placing them on the NEF List for review. This review is not to be conceived as a requirement to approve the NEF items. It is merely a means to provide oversight to ensure the program is effective and remains within the intents and parameters of the NEF Program.

Figure 1: NEF Decision Tree



NEF LIST

The following items may be deferred in accordance with the NEF program. The repair interval is Category D (120 days).

Cockpit/Cabin

1. Cushions: May be worn, torn, frayed or stained as long as the item is otherwise serviceable as determined by the PIC. Does not include missing seat cushion foam.

   (M) Procedure – None Required

   (O) Procedure – None Required

   (P) Procedure – If the cushion(s) is still usable, no action required. If the cushion(s) is unusable, display an MEL Placard on or near the cushions.

2. Stereo / Passenger Entertainment Audio: May be inoperative.

   (M) Procedure – Pull and collar circuit breakers to de-activate system.

   (O) Procedure – None Required

   (P) Procedure – Display an MEL Placard on or near the Stereo.

3. Appearance Items: May be worn, soiled, frayed, torn, damaged, loose, or missing (must not present hazard to pax/crew or impede emergency egress). Excluded are panels or floor coverings that would allow access to aircraft operational equipment or any element thereof.

   a. Cabin Interior plastic or leather trim

   b. Carpet/Floor Coverings

   c. Wall Coverings (including sidewall panels)

   (M) Procedure – None Required

   (O) Procedure – None Required

   (P) Procedure – Display an MEL Placard in a prominent position on or near the affected items to be seen by PIC.

4. Cabin Lighting (only items not covered by MEL ATA 33): May be inoperative or missing. Cockpit lighting MAY NOT be included in this deferral.

   a. Indirect/Overhead Light

   b. Light Lens / Covers: Loose, Damaged but light functions properly

   (M) Procedure – None Required

   (O) Procedure – None Required

   (P) Procedure – Display an MEL Placard in a prominent position to be seen by PIC.

5. Digital Video Recorder (DVR) and Camera System: May be inoperative or damaged. Excluded from this is externally mounted equipment; it may not be physically damaged nor missing.

   (M) Procedure – Pull and collar circuit breakers to de-activate system.

   (O) Procedure – None Required

   (P) Procedure – Display an MEL Placard near the camera system switch.

6. Headphones / Headphone Outlets, Microphones / Microphone Jacks : May be inoperative. If this system creates any audio feedback into the pilots headset it must not be deferred.

   (M) Procedure – None Required

   (O) Procedure – None Required

   (P) Procedure – Display an MEL Placard in a prominent position on or near the affected outlet(s) to be seen by PIC.

Baggage Compartments

AFT BAGGAGE COMPARTMENT

1. Retention Strap or Strut Rod/ Rod Clip: May be damaged, inoperative, or missing

   (M) Procedure – None Required

   (O) Procedure – None Required

   (P) Procedure – Display an MEL Placard in a prominent position on or near the affected access door to be seen by PIC.

SIDE BAGGAGE COMPARTMENTS

1. Strut Rod/ Rod Clip: May be damaged, inoperative, or missing

   (M) Procedure – None Required

   (O) Procedure – Insure any items carried in the compartment will not interfere with operation of the side baggage compartment door.

   (P) Procedure – Display an MEL Placard in a prominent position on or near the affected access door to be seen by PIC.