U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL AVIATION ADMINISTRATION

AIRCRAFT CERTIFICATION SERVICE (AIR)

FLIGHT TEST OPERATIONS MANUAL

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PREFACE

This manual contains information, policy, and procedures intended for use by all AIR crewmembers.

The guidance contained in this manual applies to all flight operations within AIR, including rental and flight test.

A copy of this manual is furnished to all crewmembers and corresponding supervisory personnel. **Each person to whom a manual is issued is expected to keep it up-to-date with changes furnished to them.**

The guidance in this manual shall be used in conjunction with the latest version of FAA Order 4040.9, FAA Aircraft Management Program (as amended). In the event of a conflict of instructions, users are expected to comply with the latest version of FAA Order 4040.9 and inform management immediately of the conflict.

A copy of this manual must be carried aboard all rental aircraft operated by AIR.

James A. Richmond
AIR Flight Program Manager

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CHAPTER 1. INTRODUCTION

100. General Requirements. This manual meets the requirements of FAA Order 4040.9E, Appendix K, paragraph 4. It describes the methods of compliance unique to the Aircraft Certification Service (AIR) for aircraft operations, safety and reporting. It is applicable to all AIR crewmembers including managers with active flight program participation. All AIR flight operations, flight test (job task) and open market rental (Rental Aircraft) will be executed in accordance with this manual. Individual Aircraft Certification Offices (ACO) may publish separate complementary manuals tailored for their unique regional requirements. The regional ACO manuals will not supersede this manual nor will they be less stringent.

101. Incorporated Documents. This manual incorporates all applicable parts of the following Orders:

FAA 4040.9E, Aircraft Management Program,

FAA 4040.26B, Aircraft Certification Service Flight Test Risk Management Program.

FAA 1350.15C, Records Organization, Transfer, and Destruction Standards

DOT 6050.1B, Management and Use Of Department of Transportation Aircraft

102. Authority to Change This Manual/Manual Revision Process. The Flight Program Manager (FPM) will initiate revisions to this manual and coordinate changes with the Flight Program Oversight Committee (FPOC). The AIR Flight Program Executive must subsequently approve the changes. Revisions to this manual will be published by the FPM and distributed. Each field level Flight Program Coordinator (FPC) is responsible for ensuring revisions are incorporated at the field level.

103. Concept of Operations. The basic concept of operations for the AIR Flight Program includes both Flight Test Pilots (FTPs) and Flight Test Engineers (FTEs).

a. Participants. Flight Program participants include both FTPs and FTEs. For the purpose of the Flight Program, both aerospace engineers and human factors specialists assigned flight test duties are considered FTEs. As crewmembers, the main function of AIR employees is to certify new and/or modified aircraft. FTPs and FTEs are normally expected to perform as a team while conducting certification activities. When participating on flights, FTPs normally are expected to fly the aircraft undergoing certification flight testing while FTEs actively participate as test conductors and/or data recorders.

b. Pilot-In-Command. Normally AIR FTPs do not act as Pilot-In-Command (PIC) on test aircraft except on occasions where only one person can fly the test aircraft (e.g., single seat), or where weight, center-of-gravity, risk mitigation or other factors necessitate that the airplane be flown by an FAA pilot acting as PIC.

c. Job Task Aircraft. Job Task aircraft are aircraft not under FAA control that an applicant presents for a job function conducted by an FAA FTP, FTE, or AEG pilots for certification, evaluation, or testing (See Appendix 1). All Job Task aircraft

referenced in this manual are flight test or flight test-related aircraft unless specifically identified otherwise.

d. Rental Program. Most AIR FTPs also participate in the 4040.9 Flight Program by renting open market aircraft appropriate to their needs. AIR does not own any aircraft. AIR only operates open market rental aircraft; hence reference to FAA Aircraft in this manual refers to rental aircraft. Under the Rental Program, FTPs are required to maintain (PIC) proficiency and currency in a category and class of aircraft. Participation in the Rental Program is used to ensure AIR test pilots maintain a minimum level of proficiency and is complementary to the primary flight test job function. There are no flight proficiency/currency requirements for FTEs under the Rental Program.

e. Flight Activity Crew Tracking System (FACTS). Both FTPs and FTEs are considered crewmembers assigned to the Flight Program and given crew numbers in FACTS to track required training under this manual. Completion of training and currency requirements are documented in the FACTS. Access to FACTS is accorded to all crewmembers to track their currency status.

f. Flight Safety Program. The AIR Flight Safety Program is established in FAA Order 4040.26. Though complementary, the safety and flight operations functions are separate.

104. Manual Organization. It is the intent of this manual to integrate both flying activities (flight test related and rental) throughout. However, due to the nature of the AIR Concept of Operations, it is sometimes necessary to separate sections of the manual into "Job Task" and "Rental Aircraft".

105. Systems Safety Attributes.

a. Responsibility. The overall national responsibility for AIR flight operations and safety rests with the AIR Flight Program Executive. At the field level (Standards Staff or ACO), the responsibility rests with the local office manager. Responsibility is not delegated below these levels.

b. Authority. The AIR Flight Program Manager (See paragraph 200) manages day-to-day operations at the national level and the AIR Flight Program Flight Safety Officer (FPFSO) is authorized similarly to manage the AIR Safety Program. At the field level, Flight Program Coordinators oversee the execution of the Flight Program. FPC designation will be made by letter of appointment signed by the Flight Program Manager. Local ACO Managers retain overall responsibility for the participation of their employees in the Flight Program, which may be delegated to the Manager, Flight Test or Systems and Flight Test Branch. Local management of the AIR Safety Program is also delegated to a Facility Flight Safety Officer (FFSO) appointed by the Facility Manager.

c. Procedures. This manual establishes the procedures necessary to conduct flight operations within AIR.

d. Controls. The Internal Evaluation Program (IEP) is administered and scheduled at the flight program level by the FPFSO. It is designed to identify areas for continuous improvement and to ensure compliance with Federal Aviation Regulations (Title 14

of the Code of Federal Regulations), Order 4040.9, and other DOT/FAA directives applicable to the FAA Flight Program. Root Cause Analyses and corrective action plans are required for non-compliance findings. AIR IEP audits are designed for continuous monitoring of the flight program and will be conducted locally by the FFSO on an annual basis in accordance with FAA Order 4040.9, Appendix 14. Root cause analysis and the corrective action plan are incorporated as part of the AIR IEP checklist for immediate rectification.

e. Process Measurement. The AIR IEP and FACTS measure how effectively flight operations are being administered.

f. Interfaces. Under the AIR Flight Program Concept of Operations, for flight operations on Job Task aircraft the interfaces include aircraft certification (14 CFR) regulations procedures, policy and guidance and an applicant's established procedures. For Rental Aircraft, AIR flight operations interfaces with FAA Order 4040.9, the Flight Program Policy Committee (FPPC), the Flight Program Oversight Committee (FPOC), FACTS, 14 CFR Part 61 and 91, as well as local Fixed Based Operator (FBO) and/or aircraft owner rental procedures and requirements.

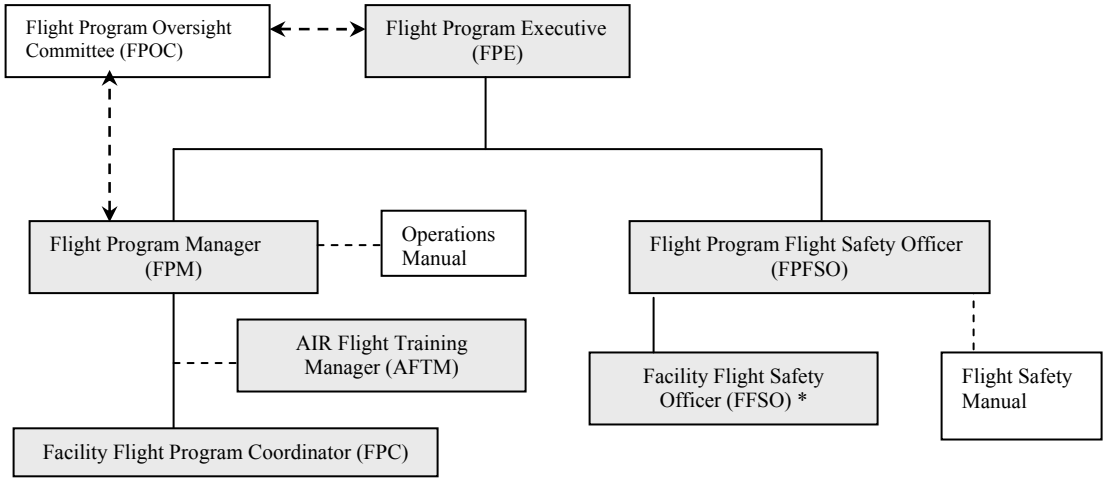
g. Deviations. Should a deviation from the procedures or policies contained in this manual become necessary, it must be documented on the "General FTOM Deviation Request" form shown in Appendix 9 of this manual.

CHAPTER 2. FLIGHT PROGRAM MANAGEMENT AND REQUIREMENTS

CHAPTER 2. FLIGHT PROGRAM MANAGEMENT AND REQUIREMENTS

200. Organization. The AIR Flight Program organization is represented generically in Figure 2-1. This organization represents only flight activities and is complementary to the AIR management structure.

Figure 2-1 AIR Flight Program Organization



* Per FAA Order 4040.26, the Facility FSO reports directly to the Facility Manager, and routinely interacts with the FPM, FPC and the FPFSO.

a. AIR Flight Program Executive. The AIR Flight Program Executive directs and manages the timely and effective execution of AIR-1's Flight Program responsibilities.

b. AIR Flight Program Oversight Committee (FPOC). The FPOC is established as an advisory group to provide expert advice on the AIR Flight Program to the AIR Director, AIR Deputy Director, AIR Flight Program Executive, Directorate Management Teams (DMTs) and various cross-organizational Leadership Teams (LTs) within AIR. Composition and responsibilities of the FPOC are included in Appendix 4.

c. AIR Flight Program Manager (FPM). The AIR Flight Program Manager assists the AIR Flight Program Executive and the FPOC by handling the administrative tasks of the AIR Flight Program particularly those requiring technical knowledge. The AIR Flight Program Manager will perform duties assigned by the AIR Flight Program Executive or the FPOC. Among tasks assigned to the Flight Program Manager are:

(1) Facilitate and/or address student input to the Flight Test Pilot/Flight Test Engineer Initial and Recurrent Qualification courses (FAA28083 and FAA28273, respectively).

(2) Facilitate and/or address student input to flight-training courses.

(3) Coordinate resolution of FACTS problems arising from users of the system.

(4) Coordinate agenda for the recurring Flight Test Workshop.

(5) Coordinate scheduling and execution of the AIR Internal Evaluation Program (IEP) and correction or resolution of IEP findings.

(6) Chair the FPOC.

d. AIR Flight Program Flight Safety Officer (FPFSO). The AIR Flight Program FSO is responsible for administering the flight safety program at the national level within AIR. Organization of the AIR Flight Safety Program and responsibilities of the AIR Flight Program Flight Safety Office are contained in Chapter 5 of this manual. The Director of the Aircraft Certification Service (or his/her designee) will appoint the FPFSO upon recommendation by the FPOC. The FPFSO will be appointed by letter for a term of 3 years. An option to extend the appointment may be exercised.

e. Flight Program Coordinator & Facility Flight Safety Officer (FPC & FFSO)

At facilities with Flight Program participants (ACOs, ACO Branches, and Standards Staff Offices), the facility manager will appoint a facility FSO to coordinate the flight safety program at the facility. The Flight Program Manager will, in coordination with the FPOC, appoint facility FPCs to assist in the execution of the AIR Flight Program, as required. The facility FSO and FPC will coordinate flight safety and flight program activities with the AIR FPFSO and the AIR FPM, respectively.

f. FAA Senior Flight Safety Officer.

(1) Promotes safety in the FAA Aircraft Management Program.

(2) Develops training courses, seminars, and materials.

(3) Administers the FAA Safety Hotline.

(4) Collects and analyzes aircraft accident/incident data.

(5) Participates as a member of the FPPC.

(6) Coordinates the use of IEP resources.

(7) Manages the Safety Awards Program.

g. AIR Flight Training Manager (AFTM) is designated to support the AIR Flight Program. The AFTM supports the administrative tasks of the AIR Flight Program as they relate to training. These include:

(1) Coordinating enrollments in the Initial and Recurrent FAA Flight Test Pilot/Engineer courses (FAA28083, FAA28273) with the AIR Flight Program Manager and providing logistical information to participants.

(2) Coordinating with AMA-260, Contracts and Program Administration, and AIR-520 on the budget of AIR out-of-agency (OAT) flight training and assisting AMA-260 and directorate training managers with scheduling issues as needed.

(3) Facilitating scheduling training conducted by the Civil Aerospace Medical Institute (CAMI) located at the Mike Monroney Aeronautical Center.

(4) Assisting with the development of AIR flight test training guidance.

(5) Facilitating the updating of eLMS records.

(6) Assisting in the development/implementation of new AIR flight training initiatives.

(7) Serving as the link between the AIR Flight Training Program and the AIR Training Team.

201. Flight Test Pilot Assignments.

a. Minimum Per ACO. Each Aircraft certification Office (ACO) should have at least two FTPs who are type rated or formally trained in the aircraft types currently in production for which the ACO is geographically responsible. The term "formally trained" means a type rating course or a formal course of training on those aircraft that do not require a type rating or for which a type rating is not yet available. If it is impractical for a particular ACO to have two FTPs trained in a currently produced aircraft type for which they are responsible, then an FAA FTP from another office may be called upon to assist with required test flying when it is deemed necessary that a type-rated pilot be provided.

b. Part 121/135 Responsibility. For each aircraft intended primarily for operation under 14 CFR Parts 121 or 135 that are still in production in an ACO's geographic area, a project FTP should be assigned as a focal for certification and COS activities related to that aircraft. The project FTP must possess a type rating in that specific aircraft type or in one of equivalent size and complexity. Although specific type ratings are always desirable, and in some cases may be required by the applicant, amassing the full range of transport type ratings for current fleets would be both unnecessary and uneconomical. For example, an FTP does not need a type rating in a Boeing 777 to do a Traffic alert and Collision Avoidance System (TCAS) installation flight test on that aircraft. However, the FTP should have experience in TCAS programs and a type rating in a heavy jet to ensure understanding of crew duties and procedures, piloting techniques, performance characteristics, and operational implications for a large jet transport. In any case, an FTP possessing the above qualifications is to conduct all tests that have an important role in the cockpit interface.

c. Part 91 Responsibility. Project pilots operating large aircraft intended primarily for operation under FAR Part 91 should be type rated in those aircraft or one of comparable size and complexity.

d. Flight Test Managers. Flight test managers who are rated FTPs and who actively participate in certification flight tests are expected to conform to the requirements of this manual. They will also fly an adequate amount annually to stay abreast of the advancing technology and maintain their ability to help their FTPs and FTEs evaluate specific problems with the certification of an aircraft. They must also stay sufficiently current to not only evaluate the performance of their cadre of FTPs, but also to evaluate prospective FTP candidates. When selecting new FTPs, non-test pilot managers should rely on evaluations of senior FAA FTPs.

e. Imported Transport Category Aircraft. Nationally, at least two FTPs (depending upon the workload) should be type rated/formally trained in every foreign manufactured transport category aircraft type that are or will be used primarily in 14 CFR Part 121 or 135 operations, and in current production. Familiarity with the imported aircraft is essential for proper evaluation of the aircraft to ensure compliance with regulations. Experience in the aircraft is essential to the accomplishment of AIR's safety management responsibilities. FTPs should remain current in the aircraft after their initial qualification, as long as there are active projects on the aircraft. It is incumbent upon each Directorate to ensure that an adequate number of FTPs are trained in the import aircraft for which the Directorate has type validation

responsibility. Directorate staffs may coordinate with supporting ACOs to arrange for the necessary training.

202. Flight and Crewmember Authorizations. All active AIR crewmembers shall be initially designated and authorized using FAA Form 4040-7. Upon designation, each crewmember shall be assigned a crew number in FACTS. In AIR, crewmembers are Flight Test Pilots (FTPs) and Flight Test Engineers (FTEs). Human Factors Specialists will be designated as FTEs in FACTS with a notation on their Form 4040-7 indicating they are a Human Factors Specialist. Each participant shall be identified by name, position title, job series and grade, physical location (cost center).

a. Rental Aircraft

(1) Approving Authority of Flight Program Participants. Approval of flight program participants is the responsibility of AIR-1. The authority to approve program participants is delegated to the Aircraft Certification Directorate Managers.

(2) Administrative Approval for use of Rental Aircraft. Within AIR, all flights involving use of Rental Aircraft are subject to the following:

(a) Flight Program participants will use FAA Form 4040-6 (see paragraph 208.c.) to request rental aircraft flights.

(b) The approval authority for flights of Rental Aircraft is delegated no lower than FAA GS/GM-15 or K band, or the facility manager responsible for the use of allocated flight hours and budget authority for the rental program. This authority is limited to aircraft weighing 12,500 pounds or less and may be turboprop and reciprocating airplanes, rotorcraft, gliders or balloons. Approval authority for all turbojet aircraft and aircraft over 12,500 pounds is the Flight Program Manager.

NOTE:

An Acting Manager lower than a K-Band is acceptable when designated as "acting" for a manager that has budget authority for the rental program. The 4040-6 should be signed ensuring that the 4040-6 is signed in an "acting"capacity – not "for".

(c) Managers who participate in the rental program must have their flights approved by another manager of equivalent or higher grade within the organization.

(d) Telephone/e-mail approvals may be obtained for flights originating at locations remote from the approving offices. A Form 4040-6 will be executed as soon as possible after the flight, and the approving manager should sign as of the date of telephone/e-mail approval.

(e) Each flight or series of flights constituting a one-time use of FAA-operated aircraft must be justified based on necessity, economy, and efficiency and is subject to prior administrative review and approval to ensure prudent, effective use of program resources.

(3) Approved uses of Rental Aircraft. Use of Rental Aircraft is authorized for mission requirements. Mission requirements are activities that constitute the discharge of FAA statutory or official responsibilities, and include but are not

limited to such activities of the Rental Aircraft Program as, training, pilot currency, pilot proficiency, qualification and standardization.

(a) Currency. Recent flight time logged by flight crewmembers in order to become or remain fully qualified to operate Rental Aircraft as Pilot-in-Command (PIC) according to requirements of 14 CFR Part 61. This is the normal use for rental funds.

(b) Proficiency, Qualification, and Standardization. Flight time used to maintain one's skills through practice of flight maneuvers, emergency procedures, instrument approaches, etc. This time includes informal instructional flights; flights required by a pilot to remain in the flight program and recent flight experience required by regulation, or to meet specific proficiency levels required by position performance standards or job functions. This time also includes flights for familiarization in specific aircraft type or aircraft systems when needed to perform a job function or to meet the requirement that the employee have current knowledge of specific aircraft types or equipment in order to approve manuals and procedures, provide expert opinions, and other similar requirements.

(c) Check Flights. Flight time used when a flight crewmember is receiving a flight check by a check airman for the purpose of meeting the requirements of this order.

(d) Familiarization Flights. With facility manager approval and on space available basis, AIR employees may accompany the flight crew on a rental aircraft for the purpose of flight familiarization or orientation providing there is no adverse impact on the primary flight currency mission of the flight. These individuals will be included on the form 4040-6 as space available non-crewmembers. Travel orders are not required for these individuals. Only crewmembers shall be on board the aircraft when part of the flight mission includes performing simulated emergency procedures.

(e) Secondary Purposes. Secondary purposes may be included in rental aircraft flights when the primary currency/proficiency purpose will not be adversely affected. Examples of such secondary purposes include:

- Stopover at a location for the flight crew to meet with a certification applicant.
- Stopover at a location for the flight crew to conduct an approved test flight on an applicant’s aircraft.
- Stopover at a location for the flight crew to participate in approved training or familiarization flights.
- Stopover at a location for the flight crew to participate in FAA meetings.

The flight crew must have appropriate travel orders when the stopover includes overnight. With facility manager approval and on space available basis, AIR employees may accompany the flight crew on a rental aircraft to participate in an official capacity in any secondary purpose of the flight. These individuals will be included on the form 4040-6 as space available

qualified non-crewmembers with a remark in Block 6 that the primary currency/proficiency mission of the flight will not be affected. Travel orders are required for these individuals. Qualified non-crewmembers must return with the airplane to the point of origin.

(4) Flight Crew Authorizations. For rental aircraft, the following crew positions are authorized:

(a) Flight Crewmember (pilots).

(b) Non-flight Crewmember (Flight Test Engineers and Human Factors Specialists). These positions will be identified by their assigned crew numbers on the FAA Form 4040-6.

(c) Qualified non-crewmember (aviation safety engineers, and other AIR personnel). These positions will be identified by code XC-888 in FAA Form 4040-6 if the individual is performing a flight function. Otherwise, qualified non-crewmembers will be identified on the reverse of the Form 4040-6 in the section normally reserved for passengers.

(d) Non-FAA/Industry check/instructor pilots may be required for in-flight instruction and/or evaluation purposes. Those serving in this capacity must have the appropriate FAA credentials/ licenses for performing those duties. These pilots will be identified by code XC-999 on FAA Form 4040-6.

(e) Familiarization flights by ACO engineers and staff personnel. These persons are considered qualified non-crew-members. Flights may not be for the purpose of transportation. Therefore, the persons flying in this capacity must return to the point of origin. These persons will be identified in passenger manifest on the reverse of the Form 4040-6.

(5) Payment for Rental Aircraft and Associated Services.

(a) Credit Cards. The office authorizing the use of the rental aircraft may provide the employee pilot with a U.S. Government National Credit Card (for official U.S. Government Purchases only) to cover the costs of aircraft rental and associated services.

(b) Facility managers may, by contractual agreement, establish procedures for payment of rental hours by other than the use of Government National credit cards.

(c) The lessor of rental aircraft will assume responsibility for specific expenses incurred in the operation of the aircraft as specified in the rental agreement/contract. Under no circumstances will FAA resources be used for items such as fuel, oil, or maintenance, unless specifically provided for in the flight-hour rental agreement (dry rentals).

(d) Lessor credit cards. When possible, the rental contractor should provide a credit card with the aircraft so that the normal costs associated with the aircraft can be billed directly to the contractor for services obtained at commercial facilities or away from the rental contractor's facility. These services may include fuel, oil, hangar rent, tie down fees, power carts, etc., for rental aircraft.

(6) Assumption of Liability for Damage, Loss, or Destruction of Rented Aircraft. FAA policy is contained in Figure 2-2, Statement of Assumption of Liability for Damage, Loss, or Destruction of Rented, Leased, or Loaned Aircraft.

FIGURE 2-2. Statement of Assumption of Liability for Damage, Loss, or Destruction of Rented Aircraft

STATEMENT OF ASSUMPTION OF LIABILITY

FOR DAMAGE, LOSS, OR DESTRUCTION OF RENTED AIRCRAFT

It will be the FAA's policy in renting aircraft to assume liability for damage, loss, or destruction of the rented aircraft, in lieu of paying the cost of hull insurance. The following regulations and statutes define this coverage when concerning government employee negligence.

Excerpts from the Federal Tort Claims Act (FTCA): 28 U.S.C.A. §§ 1346(b) and 2671 et seq.

§2672: "The head of each Federal agency*** may consider, ascertain, adjust, determine, compromise, and settle any claim of money damages against the United States for injury or loss of property or personal injury or death caused by the negligent or wrongful act or omission of any employee of the agency while acting within the scope of his office or employment, under circumstances where the United States, if a private person would be liable to the claimant in accordance with the law of the place where the act or omission occurred.

§2674: "The United States shall be liable, respecting the provisions of this title relating to tort claims, in the same manner and to the same extent as a private individual under like circumstances, but shall not be liable for interest prior to judgement or for punitive damages.

28 U.S.C.A. § 2401(b): "A tort claim against the United States shall be forever barred unless it is presented in writing to the appropriate Federal agency within two years after such claim accrues…"

Regulations

Administrative procedures for filing a tort claim with the FAA ((14 CFR Part 15 (FAA regulations) and 28 CFR Part 14 (Dept of Justice regulations)).

14 CFR § 15.3(b): "Claims shall be delivered or mailed to the Assistant Chief Counsel, Litigation Division, AGC-400, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC, 20591 ….."

28 CFR § 14.2(a): "For purposes of the provisions of 28 U.S.C. 2401(b), 2672 and 2675, a claim shall be deemed to have been presented when a Federal agency receives from a claimant, his duly authorized agent or legal representative, an executed Standard Form 95 or other written notification of an incident, accompanied by a claim for money damages in a sum certain for injury to or loss of property, personal injury, or death alleged to have occurred by reason of the incident; and the title or legal capacity of the person signing, and is accompanied by evidence of his authority to present a claim on behalf of the claimant as agent, executor, administrator, parent, guardian, or other representative.

(7) Flight Program Participant Review and Revalidation. ACO managers (or their Flight Test Branch managers, if so organized and delegated) are responsible for conducting periodic reviews at least quarterly to ensure that all active flight program participants are maintaining currency. Failure of any test pilot to maintain currency as defined in Paragraph 204 of this manual will be grounds for requiring a requalification flight or placing the pilot in an inactive status. Such action will be recorded on FAA Form 4040-7; the approval authority will be the

ACO manager or Flight Test Branch manager, if so organized and approved, and the action shall be entered in the FACTS. Action should be taken to ensure active noncurrent participants achieve current status within 60 days after becoming noncurrent. Participants temporarily unable to maintain currency may be placed in inactive status for up to 180 days. Participants unable to maintain currency due to job assignments, resource limitations, medical situations, etc., should be removed from the program. The following categories describe crewmember status:

(a) Active. Qualified (job requirement, appropriate initial check ride, medical, etc.) employee authorized to participate in the program.

(b) Current. Appropriate training, check rides, medicals, and flight time activities are achieved and recorded in a timely manner.

(c) Non-current. Participant's medical, check ride, training, or currency flight time has expired or does not meet requirements.

(d) Inactive. Participants may be placed in inactive status days when a temporary situation such as job assignments or details, illness, or temporary aircraft or resource availability problem interferes with his/her ability to maintain currency in the flight program. Inactive status will normally be limited to 180 days and is appropriate only when it is anticipated that the participant will return to active status within that time period.

b. Flight Test Related Activities.

(1) Flight Tests. All flight testing and evaluations conducted by FAA personnel will be done under the authority of either a Type Inspection Authorization (TIA) or a Letter of Authorization (LOA) signed at the appropriate management level. Prior to issuing the above authorization, the approving authority must ensure that a risk assessment of the flight test(s) has been done following FAA Order 4040.26, Aircraft Certification Service Flight Safety Program. Each flight test must be performed under an approved test plan. In addition, the FAA Flight Test Briefing Guide described in Appendix 1 of Order 4040.26 must be used prior to each flight or sequence of flights, as appropriate, unless an applicant's company briefing guide is deemed acceptable.

(2) Production Surveillance. Production surveillance flight-testing by FAA FTPs, may be conducted at the discretion of the ACO. Production flight testing by FAA FTPs is encouraged as a means of auditing the production flight testing performance of manufacturers and keeping FAA FTPs familiar with the manufacturer's product line. Production flight testing will be conducted under a Letter of Authorization, which may be a standing document identifying each aircraft model, approved flight crewmembers, and including the risk assessment required by FAA Order 4040.26.

(3) Type Inspection Authorization (TIA). The TIA is prepared by the ACO on FAA Form 8110-1 and is used to authorize official conformity, airworthiness inspections, and flight tests necessary to fulfill the requirements for TC, STC, and approval of other design changes. In addition, the TIA may contain a section (Operational and Maintenance Requirements) that provides for

operational evaluations identified by the AEG. FAA Form 8110.1, TIA, may be supplemented as necessary by individual ACOs to fit their unique regional requirements (e.g., Risk Assessment).

(4) Letters Of Authorization (LOA). An LOA must be used in lieu of a TIA in cases where other than dedicated certification flights are conducted by FAA crews (see paragraph (6)). Examples of such flights are flight tests in support of field approvals, foreign type validations, proof of concept flights, avionics systems demonstrations, or early FAA participation in developmental flight tests. When an LOA is required, it must be signed by the appropriate level of authority commensurate with the level of risk and following Order 4040.26. Sample LOAs are presented in Appendix 5. An LOA must also be used for training flights not covered by FAA Academy courses or an FAA Order 4040.9, Form 4040-6.

(5) Concurrent Testing. The FAA defines concurrent testing as certification tests that are performed simultaneously with the applicant. Concurrent testing may be performed in certain cases when the cognizant FAA manager considers them appropriate and practical to ease the burden on the applicant. Examples of typical concurrent tests are tests that are considered low risk such as avionics installations. In addition, concurrent testing may include Vmu, Vmcg, Vmca, maximum brake energy tests, and wet runway tests, which by their nature are impractical to repeat. For such tests, concurrent testing by the FAA may be performed provided an appropriate level of risk management evaluation is completed per Order 4040.26.

(6) Non-certification / Developmental Flight Testing. Occasionally, there is a need for early flight testing by FAA flight test personnel, either to familiarize themselves with a proposal or to evaluate its merits and potential certification issues. In such cases, FAA flight test personnel may be authorized to fly provided the following requirements are met:

(a) Approval has been granted via an LOA signed by the appropriate management level described in Order 4040.26.

(b) A flight test safety risk assessment has been performed following requirements detailed in FAA Order 4040.26 and so stated in the LOA.

(7) Pilot Duty Assignment. During FAA flight tests, the pilot-in-command is the applicant's pilot except in single piloted aircraft. The FAA FTP must ensure that the applicant's pilot understands that either pilot may terminate any test at his/her discretion. All tests that evaluate the performance, flight characteristics, systems, or pilot/cockpit interface must be conducted by an FAA (or DER) FTP occupying the pilot seat that is most appropriate for the evaluation being conducted. At the discretion of the FAA (or DER) FTP, other tests may be observed from any other cockpit position. The letter in Appendix 7 of this order may be used to justify the requirement for an FAA FTP to occupy a pilot position.

(8) Cockpit Pass. It is difficult for anyone to remain abreast of the technology currently being installed in aircraft. Therefore, each FTP (and FTE) is

encouraged to apply for a cockpit pass (FAA Form 110R) following the instructions contained in order 8000.110R, "Flight Deck Access Card FAA 110R Program"., All requests should be routed through the process defined in Order 8000.110R, for approval. FTPs and FTEs are encouraged to use a cockpit pass on commercial flights to enhance their knowledge of new technology and to familiarize themselves with the operation of modern equipment used by flight crews in the National Airspace System. This program also provides an additional set of eyes and ears in the cockpit, which many captains appreciate. This type of pass can only be used in conjunction with a purchased ticket and while on official FAA business.

c. Procedures Designating and Removing Flight Program Crewmembers.

(1) All test pilots and flight test engineers shall be initially designated and authorized using FAA Form 4040-7. Each participant shall be identified by name, position title, job series and grade, physical location (cost center), and justified based on a valid job function contained in his/her performance plan.

(2) Flight test pilots are required to have:

(a) A performance plan that specifically requires them to use aircraft to meet job requirements.

(b) A valid pilot certificate with category, class, and type ratings appropriate to the operation to be conducted.

(c) Current second-class (or first-class) medical certificate.

(3) Flight test engineers and Human Factors Specialists are required to have:

(a) A performance plan involving flying.

(b) Current third-class medical certificate.

(4) Aircraft Certification Directorate managers, as delegated by AIR-1, are responsible for authorizing individuals to participate in the FAA flight program as crewmembers. Crewmembers include flight test pilots and flight test engineers (including human factors specialists).

203. Crewmember Flight and Survival Equipment.

a. General. Rescue facilities and forces are available throughout the world. Their most difficult problem, when called upon, is locating the crash sites or survivors. A pilot can best ensure his/her location is most easily found by flying a filed flight plan and alerting ground stations at the first indication of an emergency. Adequate survival equipment and a thorough understanding of its limitations and use will greatly assist in the ultimate rescue. Ensuring that proper safety equipment is aboard and having knowledge of its use greatly increases the pilot's chance of survival. For ditching, adequate flotation is paramount. In every case, an emergency locator transmitter, a portable emergency radio, and a visual signaling device will greatly assist in locating a downed aircraft. Protection from the elements is extremely important. Many times protection can be easily improvised. Mission requirements, in addition to terrain and climate, should be considered in determining what survival equipment will be aboard

each aircraft. Equally important is effective crewmember training in the use of this equipment.

b. Flight Equipment. Managers, FTPs, and FTEs should ensure all necessary safety/survival equipment is provided and that all crew members are familiar with the usage of this equipment. The required safety equipment for each test will be determined by the hazard analysis/risk assessment required by Order 4040.26. Each crew member should be provided with all necessary protective clothing and equipment as detailed in Order 3900.19, Occupational Safety and Health, Chapter 8, 9, Section 107f. The basic flight equipment includes:

Number	Item(s)
2	Fire retardant flight suits (replace every 4 yrs)
1	Fire retardant flight jacket (replace every 4 yrs)
1	Pair high top, flight boots
2	Pair fire retardant gloves (replace every 4 yrs)
2	Two piece fire retardant underwear/socks (replace every 4 yrs)
1	Flight Helmet and bag (Based on operational requirements)
1	Military type MBU Oxygen mask with amplifier (Based on operational requirements)
1	Kneeboard
1	Headset with boom mike
1	Flight Bag
1	Sunglasses (prescription, if required, are fully reimbursable)

c. Survival Equipment. Survival equipment requirements will vary with the environment in which the testing is to be conducted, or over which transit will be conducted enroute to testing. For example, long duration flights over polar or jungle environments are often required during transit to test sites for cold weather, icing, or high landing field elevation. The following provides guidance to assist FAA flight test crews in planning for flight operations where the potential exists for a survival situation in which standard flight equipment will not be adequate. This section provides general requirements regarding survival equipment.

(1) Mission Requirements. The special survival equipment listed in this section shall be provided by local operating organizations and should be on board during operations over remote desert, or polar areas, or large bodies of water. Open-market rental aircraft shall be equipped to comply with the FOR HIRE provisions of FAR 91.205 when operated beyond power-off gliding distance from shore. The PIC is responsible for having all required aircraft operational and survival equipment on board for all crewmembers and passengers.

(a) Emergency Radio. At least one portable emergency radio transceiver, capable of communication on 243.0 Mhz (121.5 Mhz also recommended) and not dependent upon the aircraft power supply, shall be aboard when a single-engine aircraft is operated beyond power-off gliding distance from land or when a multi-engine aircraft is on an extended over-water mission. The device shall be packed in a self-buoyant, water-resistant container.

(b) Life Preserver. One approved, inflatable, dual-compartment life preserver equipped with an approved survivor locator light should be available for each person on extended over- water flights. A suitable flotation device will be available for each person aboard a single-engine aircraft that is operated beyond gliding distance of land or when takeoffs or landings are made on water. Seaplanes and amphibian aircraft serving as job task aircraft or in the rental program are expected to have life preservers aboard at all times, except amphibian operations on land only. During takeoffs and landings on water, each occupant of a seaplane or amphibian is expected to have a life preserver readily available for donning.

(c) Life Rafts. The requirements of 14 CFR Part 91 will be adhered to with regard to life rafts and emergency equipment..

(d) Minimum Equipment Kit. A minimum survival equipment kit should be provided through AIR/Directorate funding, and carried during all flights in rental and job task aircraft where flights are over water or will be conducted over remote areas. The following minimum survival equipment items are recommended:

Packaged survival kit with heavy duty carry-on bag (including the following items or equivalent):

First Aid & Prevention:
1 First aid kit
1 Trauma compress
1 Lip Balm
1 Insect repellent
2 Mosquito headnets
High SPF sunblock

Shelter:
2 Tube tents, 2-person
1 Parachute cord, 100'
1 Emergency bag

Signaling/Comm:
1 Signal mirror
1 Emergency whistle
1 roll, orange-glo flagging
1 Laser flare
1 Personal Locator Beacon (406 Mhz) with GPS and 243.0 Mhz Comm

Fire, Heat, & Light:
1 Fire starter
1 Lifeboat matches, drum
2 Tinder cubes, 6-pack
1 Pocket stove w/fuel tabs
1 Flashlight, waterproof

Food & Water:
2 Food rations, 3600 cal.
16 Water rations, 4 oz.
12 High energy candy
4 Bouillon cubes
4 Tea bags
1 Chewing gum, pack
1 Water bag, 2 gal.
1 Potable water, bottle
1 Sierra cup
2 Plastic cups
2 Spoons
1 Water filter

Tool & Utility:
1 Compass
1 Multi-purpose tool
1 Knife
1 Pocket sharpener
1 Utility knife, small
1 Pocket chainsaw
1 Duct tape, 2" roll
1 Aluminum foil
4 Kleenex travel packs
1 Sewing kit
1 Survival guide
1 Snare wire
1 Gill net
1 Fishing kit
Trash bags
Spare batteries for electronic items

(f) Parachutes. Parachutes shall be available in airplanes as required for risk mitigation for flight test programs.

(g) Polar (Arctic) Equipment. Except for multi-engine, turbine-powered transport category aircraft, appropriate polar survival clothing shall be available for all passengers and crew when flying in polar regions. Polar sleeping bags in sufficient quantity to accommodate all personnel are recommended when aircraft cross remote areas into polar regions.

(h) Desert Equipment. Sleeping bags, sunglasses, emergency water, and other appropriate survival equipment should be aboard the aircraft when the flight traverses remote desert areas.

(i) Additional Equipment. The foregoing requirements should be supplemented by the responsible managers as experience and local conditions require.

(2) Stowage Requirements. All survival equipment should be stowed in a manner that will make it easily accessible if ditching or a crash landing is imminent. It should be installed in conspicuously marked, approved locations. Special care should be taken by all personnel involved to ensure that this equipment remains clean and serviceable.

(3) Briefing of Passengers. When survival equipment is aboard, the PIC or designated representative should ensure that passengers are briefed on its location and proper use. On a large aircraft, the PIC should assign crewmembers specific and alternate duties and responsibilities for evacuation prior to ditching or crash landing. The instructions in the aircraft operations manual should be followed.

d. Spin Recovery Devices. See Appendix 6 for guidance on the requirements for spin recovery devices.

204. Crew Qualifications. Normally AIR pilots are expected to hands-on fly test aircraft (Job Task aircraft) but not act as Pilot-In-Command (PIC) on these aircraft except where weight, center-of-gravity, risk mitigation or other factors dictate that the airplane be flown by an FAA pilot acting as Pilot-in-Command.

a. Pilot-In-Command Currency Requirements. AIR pilots are required to maintain PIC proficiency/currency if they participate in the Flight Program (Rental Aircraft). If participating in the Flight Program, pilots shall maintain day passenger-carrying and IFR PIC currency requirements of 14 CFR 61.57. The guidance in this Operations Manual must be used to ensure FTPs maintain currency and proficiency to conduct certification flight tests. The Certification Directorates should request aircraft rental resources to ensure that FTPs meet the established minimum flight hour requirements. Managers will consider the ratings and currency requirements of their FTPs who are both fixed-wing and rotary-wing rated.

b. Pilot-In-Command (PIC) Designation Requirements (Rental Aircraft). Designation as PIC shall be made on FAA Form 4040-7 and identified by the letter "P" under *Job Category* with either AMEL or HELICOPTER under *Aircraft*. The 4040-7 initially assigning a pilot to the Flight Program will be signed by the Directorate Manager. [Note: Other type ratings should also be included via a Form 4040-7 but these forms may be signed by the flight test pilot's manager] Each PIC will be in a 2181 Series job. The Series 2181 Performance Plan includes:

(1) A requirement to operate and maintain flight currency in one or more types or categories of aircraft. (This requirement may be waived by the Associate Administrator, AVS-1, on a case-by-case basis. This waiver authority may not be delegated.)

(2) The requirement to hold a valid pilot certificate with category, class, and type ratings appropriate to the operation to be conducted.

(3) The requirement to hold a current medical certificate appropriate to the operation to be conducted (as required by the this manual and the pilot's Performance Plan).

(4) A requirement for ratings and experience appropriate to job functions and mission requirements (see figure 2-3).

(5) The requirement to have a current check flight, documented on a Form 4040-2, *FAA Crewmember Check Record*, or equivalent, as evidence of authority to act as PIC and reflecting satisfactory accomplishment of an initial, recurrent, or requalification check flight.

(6) The requirement to monitor currency dates and complete training as required in paragraph 406e and ensure its completion documentation is provided to the AFTM.

(7) A requirement to maintain the flight currency requirements established in this manual.

Figure 2-3. Minimum Requirements for PIC

	Multi-engine hours	**Helo Hours**
Two-engine piston 12,500 lbs or less	100	
Two-engine Turboprop 12,500 lbs or less	100	
Multi-engine Prop Over 12,500 lbs	500	
Single-engine Helicopter 6,000 lbs or less		50
Helicopter Multi-engine or Over 6,000 lbs		250
Glider Operations*		
Free Balloon Operations**		

***Within the preceding 6 calendar months, must have logged at least three flights with each type of tow to be utilized.

** Within the preceding 6 calendar months, must have logged at least three flights.

c. Flight Currency Requirements.

(1) Semiannual Currency. AIR pilots are expected to have logged the following within the preceding 6 calendar months on a continuing look-back basis:

(a) For line flight test pilots, a minimum of 40 hours total time in any/all category of aircraft.

(b) Before acting as PIC, a minimum of 12 hours must have been flown as the sole manipulator of the controls of an aircraft in the same category as that to be proposed to act as PIC. Flight time accrued in multi-engine land airplanes

under 12,500 pounds may be credited toward single-engine land airplane flight-hour currency requirements. Similarly, flight time accrued in a turbine-powered large or multi-engine helicopter (over 6,000 lbs) may be credited toward single-engine small (under 6,000 lbs) helicopter.

(c) Managers who are also classified as flight test pilots, and who actively participate in certification flight tests, a minimum of 28 hours total time in any/all category of aircraft.

(d) Managers of Aircraft Certification elements which includes flight test pilots and who themselves are also qualified test pilots, a minimum of 12 hours total time in any/all category of aircraft.

(e) Except for (b) above, either of the following is credited for the semiannual currency requirement:

1. Completion of a formal flight training course (with a national FAA course number) which requires manipulation of the controls and culminates in a check flight which is reported on FAA Form 4040-2 or equivalent.

2. Completion of a check flight (initial, requalification, or recurrent proficiency) documented on FAA Form 4040-2 or equivalent. Managers and/or supervisors may authorize requalification check flights in lieu of actual accrued flight experience based on the pilot's individual skill levels and job assignments. (Care should be exercised by the manager in the repetitive or exclusive use of this option for a given pilot.)

(2) Annual Currency. In addition to the currency requirements for PIC, AIR pilots must fly the following minimum hours. Currency is to be maintained on a Fiscal Year basis.

(a) Line Flight Test Pilots: 100 hours per year in any/all categories of aircraft

(b) Managers who are also classified as flight test pilots, and who actively participate in certification flight tests: 64 hours/year.

(c) Managers of Aircraft Certification elements which includes flight test pilots and who themselves are also qualified test pilots; 24 hours/year.

(d) All flight time accumulated during the year counts toward the above requirement. This includes flight time accrued during certification flight tests, production flight tests, formal flight training courses, rental aircraft flying, military pilot time, pilot time using travel funds, and time in FAA-approved Class C and D flight simulators. Flight time should be logged as pilot time on FAA Form 4040-6 or on a "Crew Data Only" worksheet. Flight time accrued in personal/private aircraft during off-duty time may be used if the pilot desires.

(3) FAR 61.57 Currency. In addition to the flight currency requirements above, pilots shall comply with the IFR and day passenger carrying requirements of FAR 61.57. Pilots who are both airplane and rotary wing qualified may elect in which aircraft to maintain currency.

(4) Logging Second-In-Command (SIC) Pilot Time. The Flight Program encourages crewmembers to fly together as much as possible in order to practice crew coordination and Crew Resource Management (CRM) techniques. It is expected that when FAA crewmembers fly together, they will attempt to divide duties as Pilot Flying (PF) and Pilot-Not-Flying (PNF) similar to multi-crew aircraft. Consequently, for the purposes of meeting the FAA Flight Program currency requirements, AIR pilots can log SIC time when flying as crewmembers in single-pilot designated aircraft. However, this SIC time cannot be used for credit for 14 CFR Part 61 rating requirements.

(5) Failure to Meet Currency Requirements. Each flight test pilot is expected to meet the currency requirements of this manual. Failure to meet these requirements should be for reasons beyond the individual pilot's or Aircraft Certification Service management's control. Pilots who fail to meet the semiannual flight time requirements must accomplish the following (Note: The procedures in this paragraph shall not be used on a regular basis):

(a) The pilot must complete a proficiency check in the category of aircraft assigned. The currency timing reinitializes on the day of the check. This action will be recorded on a FAA Form 4040-2 and entered into FACTS.

(b) If a pilot has been non-current for several weeks or months, it may be necessary to provide rental aircraft flight time to allow him/her to regain proficiency and prepare for the proficiency flight check. During such flying the individual cannot serve as pilot-in-command. To regain proficiency, the non-current pilot must fly with a qualified PIC. If this is not practical, the crewmember will be placed in inactive status via an FAA Form 4040-7 and entered in FACTS.

(c) Pilots who fail to meet the day passenger-carrying requirement of FAR 61.57 shall regain that currency as soon as possible and prior to flying with passengers. Pilots are not normally required to maintain night passenger carrying currency, but must be night current before flying passengers at night.

(d) Pilots who fail to meet the IFR currency requirement of FAR 61.57 must complete an instrument competency check in the category (s) of aircraft assigned as PIC. The currency timing reinitializes on the day of the check.

d. Designation of Check Pilots. AIR Check pilots shall be designated by memorandum signed by the Directorate/Division Manager and on a FAA Form 4040-7 by the letter C under *Job Category*, also signed by the .Directorate/Division Manager. The memorandum requesting approval will initially be routed through the Flight Program Manager for technical concurrence. Persons designated as check pilots should be selected from the most highly qualified pilots available. ACO/Flight Test Managers will identify flight instructor/check pilot(s) to administer proficiency flight checks if an appropriately qualified individual is available. If an appropriately qualified flight test pilot is not a certified flight instructor, the respective manager will ensure compliance with the qualifications stated below. An FAA check pilot shall have at a minimum:

(1) Current PIC authority and ratings pertinent to those crew functions.

(2) **Knowledge of the instructor/student relationship** and experience in airman evaluations.

(3) **In-flight training and practice** in conducting instruction and flight checks from the left and right pilot seats in the required normal, abnormal, and emergency maneuvers.

(4) **Technical knowledge of the aircraft involved.**

(5) **Training as required** under Chapter 4 of this manual.

e. **Pilot Check Flights.** An impartial system of flight proficiency, evaluation, and training is an indispensable part of the FAA Flight Program. Each AIR pilot shall receive an annual proficiency flight check regardless of participation in the Flight Program. All check flights must be requested and documented on a FAA Form 4040-2 or equivalent. Check flights given as a part of a formal training course and properly documented on a Form 4040-2, or equivalent, may be used for a Flight Program required check if that check flight is performed in an aircraft of equal category and class for which PIC/SIC currency is maintained. A check flight will consist of the applicable maneuvers listed on FAA Form 4040-2, or equivalent, and will be conducted according to commercial Pilot Performance Test Standards (PTS) for the appropriate aircraft category and class. Check flights are required for initial qualification, recurrent qualification, requalification, and for post accident or incident flights as applicable. Other special check flights may be conducted as deemed necessary by management. Biennial flight review requirements of FAR Part 61 can be completed and documented during the annual proficiency check flight. A completed FAA Form 4040-2 or equivalent will satisfy the logbook entry requirements of 14 CFR Part 61. Any subject area or maneuver on FAA Form 4040-2 determined to be deficient during a check flight will be reviewed and additional instruction conducted as necessary to achieve a satisfactory level of knowledge, performance or skill. Check flights will be conducted by a designated FAA check pilot, an FAA Academy or Washington Flight Program Staff flight instructor, or an industry or military pilot who meets the qualifications of subparagraphs (7), (12), and (13) below.

(1) **Airplane Check Flights.** For those pilots flying airplanes only, this check will normally be given in a small multi-engine airplane, which will also satisfy the annual requirement for small, single engine airplanes. For those pilots who are not involved in flying rental airplanes and whose primary duties involve certification of transport airplanes, this annual flight check may be accomplished in a simulator FAA-approved as Class C or D, or an engineering simulator of equivalent capability.

(2) **Rotorcraft Check Flights.** For pilots flying rotorcraft only, the annual proficiency flight check will be accomplished in a helicopter. A check flight in a turbine-powered large or multi-engine helicopter (over 6,000 lbs) meets the requirements for a check in a single-engine small (under 6,000 lbs) helicopter.

(3) **Dual Qualified Pilots.** For pilots flying both airplanes and rotorcraft, an annual proficiency flight check will be required in both categories.

(4) **Glider Check Flights.** For flight test pilots maintaining currency in gliders, annual compliance with the maneuver requirements of § 61.56(b) is required to be

documented as a glider proficiency check administered by an appropriately rated person on FAA Form 4040-2.

(5) Initial Aircraft Qualification. Except as provided below, initial aircraft qualification check flights are required in each type of aircraft to be flown prior to being assigned in that aircraft as PIC, or as SIC. The word "type", as used in this paragraph, has the same meaning as defined in 14 CFR Part 61 when used with regards to airman certification, ratings, privileges, and limitations. Certain exceptions to the requirements are listed below:

(6) Small single-engine and glider exception: A check flight is not required for initial qualification in each type of small, single-engine airplane, lighter than air, free balloon, airship, or glider provided:

(a) A separate type rating is not required by 14 CFR Part 61;

(b) The pilot is currently qualified as PIC due to a qualification check flight in an aircraft of the same category and class;

(c) There are no significant differences in the aircraft systems, performance, or limitations; and

(d) The PIC successfully completes an oral/written examination administered by a check pilot on the type of aircraft to be flown which is documented on FAA Form 4040-2 or equivalent.

(7) Small multi-engine exception. A check flight is not required for each type of small multi-engine airplane provided:

(a) A separate type rating is not required by 14 CFR Part 61;

(b) The pilot is currently qualified as PIC due to a qualification check flight in a multi-engine airplane below 12,500 pounds.

(c) There are no significant differences in the aircraft systems, performance, or limitations; and

(d) The PIC successfully completes an oral/written examination administered by a check pilot on the type of multi-engine airplane to be flown which is documented on FAA Form 4040-2 or equivalent.

(8) Qualification/Check Flights in Rental Aircraft. Initial qualification checks in open-market rental aircraft require compliance with the proficiency and recent flight experience standards of the operator or vendor as well as of this order. The initial qualification check flight in an open-market rental aircraft, if not given by an FAA check pilot, may be given by the holder of a current flight instructor certificate who is provided by the operator or vendor. The following conditions apply for initial and annual check flights:

(a) Industry check pilot. Any person holding relevant category, class and type ratings (if required), and a valid flight instructor certificate with the appropriate category and class ratings; or any person holding an Airline Transport Pilot certificate with appropriate category, class and type rating (if required), and who is designated as a proficiency check airman, may give an initial or recurrent aircraft qualification, competency, or proficiency check in

an open-market rental aircraft or simulator. This person may be used when a designated FAA check pilot is not available or when the FAA approving official authorizes the use of the vendor or operator's instructor to conduct flight training and instruction of FAA personnel.

(b) Applicable flight maneuvers satisfactorily completed shall be recorded on FAA Form 4040-2 or equivalent. The completed FAA Form 4040-2 or equivalent, signed by the check pilot, will be retained in the crewmember's flight record folder.

(9) Recurrent Checks. All AIR pilots are expected to satisfactorily complete at least one initial, requalification or recurrent type rating check every 12 calendar months. In addition, for those pilots participating in the rental program a check flight in a small airplane (less than 12,500 lbs.) must be accomplished every 12 calendar months in each category of aircraft in which serving as PIC. A check flight in a multi-engine airplane meets the requirements for a check in a single-engine airplane. Similarly, a check flight in a turbine-powered large or multi-engine helicopter (Over 6,000 lbs) meets the requirements for a check in a single-engine small (Under 6,000 lbs) helicopter. The annual type rating check does not count for the rental program check. For seaplanes, a separate check is required.

(10) Instrument Competency Checks. A pilot who does not meet the recent IFR experience requirements of 14 CFR part 61.57(c) shall successfully complete an instrument competency check under part 61.57(d), which will be documented on FAA Form 4040-2 or equivalent. This check must be given by a Certified Flight Instructor Instruments (CFII).

(11) Special Check Flights. A special check flight may be given to a pilot after an accident or incident when pilot competency could be considered to be a factor. The pilot shall demonstrate those aeronautical skills specified by the designated FAA check pilot who conducts the check.

(12) Checks by Military Personnel in Military Aircraft. Armed Services personnel designated on military orders as check pilots may give annual proficiency checks to FAA personnel in military aircraft (e.g., Army helicopter program) or nonmilitary aircraft if appropriately certificated. The successful completion of a military proficiency check required for PIC purposes satisfies the flight review requirements of 14 CFR Part 61. An FAA Form 4040-2 or equivalent, showing the satisfactory completion of the proficiency check, will be retained in the crewmember's flight record folder.

(13) Successful completion of any check flight will satisfy the biennial flight review requirements of 14 CFR Part 61 when a review of the general operating and flight rules of 14 CFR Part 91 is included and an entry of this fact is made on FAA Form 4040-2 or equivalent.

NOTE: Forms considered equivalent to FAA Form 4040-2 include FAA Form 8410-3 and similar forms used by training institutions or training centers such as Flight Safety.

(14) FSB Chairman. The Flight Standardization Board (FSB) Chairman may give check flights to FAA FSB members in new aircraft.

(15) Check flights satisfy the biennial flight review requirements of 14 CFR 61 *provided*:

(a) The check flight is completed successfully,

(b) A review of the general operating and flight rules of 14 CFR 91 is included,

(c) The check flight is conducted according to the commercial practical test standards,

(d) The check flight is conducted by an authorized instructor, and

(e) An entry of achievement is made on a Form 4040-2 or equivalent. A completed FAA Form 4040-2 or equivalent will satisfy the logbook entry requirements of 14 CFR 61.

f. Medical Certificates. FAA Management has an over-riding obligation to ensure that our employees are physically capable of performing flight duties. Employee well-being and safety are our major concerns. The only method of insuring the medical fitness of employees to perform flight duties is by a flight physical. Flight physicals should be coordinated through the local Office of Aerospace Medicine.

(1) All FTPs are required to maintain at least an FAA Second-Class medical certificate in order to perform their duties.

(2) All active FTEs (including Human Factors Specialists) are required to maintain at least an FAA Third-Class medical certificate or meet the medical standards outlined in Appendix 8 in order to perform their duties.

(3) Other individuals whose proper performance of duty is necessary for safety during flight tests must have a current FAA Third-Class medical certificate or meet the medical standards outlined in Appendix 8 in order to perform their duties.

(4) When Appendix 8 medical standards are used, a qualified Aerospace Medical Examiner (AME) will certify by a signed letter that the individual satisfactorily meets the criteria of the appendix.

g. Drug Screening (Testing Designated Position) Flight Testing Personnel (FTP and FTE) are required by Executive Order 12564 and the Office of National Drug Control Policy to participate in substance abuse screening. Guidance on procedures is contained in:

(1) U.S. Department of Transportation Order 3910.1C, Drug and Alcohol-Free Departmental Workplace; and/or

(2) a collective bargaining agreement, if applicable.

h. Qualification on Test Aircraft. As a part of the flight test program for Type Certification (TC) projects, the applicant is expected to provide the necessary pilot training for the FTP(s) responsible for the project. The assigned project FTP(s) will contact a responsible official of the applicant's organization to arrange for an adequate and agreed upon training in the applicant's aircraft. The training must be completed before the FAA FTP(s) conduct any flight tests requiring action in an official flight test pilot capacity.

i. Familiarization on New Models. Familiarization flying may be arranged for additional flight test pilots as a part of functional and reliability testing, production testing, or during extensive type testing if it does not impose an additional burden on the applicant or interfere with the responsible directorate's conduct of the required certification tests. If additional FTPs, not assigned directly to the project, need qualification flight training (as a convenience to the government) in a manufacturer's prototype or in first production models, arrangements should be made to contract for this training. Such arrangements should be made through internal service channels of the pilot's training organization, and not directly with the manufacturer. Since it is unlikely that the FAA Academy can provide such training, the funds will come from the training budget.

j. Airman Rating Qualification During Type Certificate (TC)/Supplemental Type Certificate (STC) Tests. Each TC project involving a new design or any major STC project that significantly modifies the flight characteristics or procedures (such as change from reciprocating engine to turboprop) will include those airman competency tests and maneuvers specified in FAR Part 61. An FTP is required to perform these tests and maneuvers to determine how the aircraft will perform in the operation(s) and atmospheric conditions for which it will be approved. The airman competency maneuvers and minimum crew evaluation will be developed in coordination with the assigned Aircraft Evaluation Group (AEG) specialist during the type certification program. This is to ensure satisfactory determinations of speeds, handling characteristics, procedures and systems operations for the airman competency maneuvers and the adequacy of the proposed minimum flight crew.

k. Initial Type Rating. If a test aircraft requires a new type rating, the project FTP should make every effort to obtain a type rating on that aircraft as soon as possible. The preferred method of obtaining a type rating on a new aircraft is by participating as an advisor to the AEG Flight Standardization Board (FSB). An FTP's participation in the FSB benefits both the AEG and AIR. The benefit to the AEG is that the FSB is able to use the FTP's knowledge of the aircraft from the certification aspect to make more accurate FSB findings. AIR benefits when one of its FTPs receives a type rating in a new aircraft type. This benefit to AIR is especially true for foreign aircraft validated by the FAA under a bilateral agreement where training opportunities for the FTP are more difficult to obtain. An alternative to FTP participation in the FSB is for the FTP to make arrangements to obtain ground school acceptable by the AEG and undergo an oral and practical flight checkride in the new aircraft. A second alternative is for the FTP to schedule formal type rating training for that aircraft through the FAA Academy.

l. Skills and Knowledge. Every FAA FTP is expected to be skilled and knowledgeable in experimental aircraft testing techniques, as well as in aircraft operations under environmental conditions appropriate to the kind(s) of operation(s) for which the applicant is seeking approval. Special training (e.g. type rating, seaplane rating, or tailwheel qualification) should be requested, to qualify individuals in advance of actual need for a specific project. This training may be through normal training request channels or may be obtained locally. The special training may be a formal course of instruction or a check-out in the applicant's aircraft. An FTP will not be assigned to conduct flight tests until the manager is assured that the FTP's experience,

ability, skills, and proficiency are adequate to safely conduct the tests. When certification projects arise that require special training, the manager should cite this order when preparing the request for Priority 1 training. Funds normally used to maintain currency under this manual (rental funds) may be used by FTPs to acquire familiarization training and proficiency in unique aircraft in preparation for test programs.

m. Determination of Qualification for Flight Testing. Before a FTP is assigned to conduct a flight test, it should be determined by the first line supervisor/manager that:

(1) The FTP's experience, training, skill, and proficiency are appropriate for the scope, level of difficulty, and criticality of the test.

(2) The FTP has:

(a) Successfully completed the Initial Flight Test Pilot/Flight Test Engineers Course (# 28083), or,

(b) While waiting to complete the required formal course, has received the equivalent in on-the-job training in certification testing techniques and knowledge under the supervision of an experienced FAA FTP, or,

(c) Has otherwise demonstrated his/her aircraft testing competence and knowledge to an experienced FAA FTP and the results have been reviewed and approved by another FTP or flight test manager;

(3) The FTP otherwise meets the requirements of this order.

205. Personal Health Limitations

a. General. A professional approach to flying requires a thorough knowledge of one's limitations, and physical and mental condition. Individual crewmembers are responsible for maintaining high levels of physical and mental fitness.

- No flight will be continued beyond the nearest suitable airport when a flight crew member's capacity to perform functions is significantly reduced by impairment of faculties from causes such as fatigue, sickness or lack of oxygen,
- Any suspected communicable disease will be reported promptly to air traffic control, in order to facilitate provisions for any special medical personnel and equipment necessary for the management of public health risks on arrival,
- For international operations procedures for assessment of health risks at out of country destinations and for handling of passengers and crew should they be exposed to infectious disease or significant health risks can be found at the FAA Occupational Safety, Health, and Environmental Compliance Committee (OSHECCOM) intranet site.

b. Drugs or Medicines.

(1) Approved Medications. No medication other than aspirin and similar drugs shall be taken by any individual, either while performing duties as a flight crewmember or while scheduled for flight activities except after consultation and advice of an FAA flight surgeon or Designated Examiner.

(2) Flight Under the Influence of Medications or Drugs. No FAA employee or other person shall act as a flight crewmember on an aircraft while under the influence of any medications or drugs that are affecting or may affect the person's physical or mental capacity in any way contrary to safety.

(3) Intoxicated Passengers. Except in an emergency, no PIC shall permit a person who is obviously intoxicated or under the influence of drugs (except a medical patient under proper care) to be aboard his or her aircraft.

(4) Inoculations. No FAA employee or other person shall act as a flight crewmember on a Rental Aircraft within 24 hours after receiving inoculations (except flu shots, smallpox, and oral polio that require no waiting period).

c. Alcoholic Beverages. No person may act or attempt to act as a crewmember of a civil aircraft:
(1) Within eight (8) hours after the consumption of any alcoholic beverage;
(2) While under the influence of alcohol; or
(3) While having .02 percent by weight or more alcohol in the blood.

d. Blood Donations. Because of the potentially adverse effect of temporary blood deficiencies, the following restrictions shall be observed after blood donations:
(1) Flight crewmembers shall be grounded for a period of 24 hours after donating one unit (500 ml) of blood.
(2) Flight crewmembers shall be grounded for a period of 72 hours after donating more than one unit (500 ml) of blood.

e. Scuba Diving and Diving Chamber. Within 24 hours after scuba diving (compressed air dives) or a diving chamber (hyperbaric-high pressure) exposure, flight crewmembers shall not fly an aircraft, nor participate in altitude chamber (hypobaric-low pressure) training unless cleared for such activities by an FAA flight surgeon.

f. Exposure to Rapid Decompression. Within 24 hours after exposure to an in-flight decompression at 25,000 feel MSL or higher altitude, or completion of altitude chamber (hypobaric - low pressure) training that includes a rapid decompression demonstration from 25,000 feet MSL (equivalent) or higher, flight crewmembers shall not fly an aircraft unless cleared for such activities by an FAA Flight Surgeon.

206. Flight Time and Rest Periods

For single pilot operations to be conducted under paragraphs a. or c of this Section reduce the base duty period by 2 hours (ie. The base maximum hours under paragraph a. are 12 hours, for single pilot it would be reduced to 10 hours).

All extensions allowed in this section must be documented on the "FTOM Section 206 Extension to Crew Duty Time," form as shown in Appendix 9 of this manual.

a. Crew Duty Hours. Maximum crew duty hours are established for test pilots, flight test engineers and other assigned flight test crewmembers. These limits provide a maximum duty period when personnel are involved in flying activities. For the purposes of establishing the duty limit, the crew duty day commences when the flight test crewmember reports for duty, regardless of whether that duty involves flying or non-flying activity. The crew duty day ends when the aircraft engines are shut down on the last flight of the day. The crewmember may remain on duty for non-flying activities after the maximum crew duty period is reached, but cannot participate in flying activities. The basic crew duty period shall not exceed 12 consecutive hours without management approval. The ACO Manager or Flight Test Manager may grant extension to the basic crew duty period for no more than two hours for normal flight test missions, on a case-by-case basis. For certain flights, an extended crew day may be approved (see paragraph 206.e. below).

b. Crew Rest. The crew rest period is the non-work period immediately preceding the crew duty period. This period shall be a minimum of 10 hours, with at least 8 uninterrupted hours allowed for sleep before the start of any duty period that will involve flying. Should the extension provisions of paragraph e. of this section be exercised, a minimum of 16 hours of crew rest before the start of any duty period that will involve flying is required. Maximum continuous duty days for FAA flight crewmembers is limited to 6 days, followed by a minimum 24 hours crew rest period without duty assignment (i.e. 1 off in every 7). The ACO Manager or Flight Test Manager may grant extension to the crew rest period for no more than one day, on a case-by-case basis, equating to 1 off in every 8.

c. High Risk Test Flights. When flying developmental or certification flight tests classified as High Risk, the maximum crew duty day shall not exceed 10 consecutive hours. The ACO Manager or Flight Test Manager may grant extension to the crew duty period for experimental or high risk flights for no more than two hours, on a case-by-case basis.

d. Training Flights. When conducting training flights, the maximum crew duty day shall not exceed 10 consecutive hours. The ACO Manager or Flight Test Manager may grant extension to the crew duty period for training flights for no more than two hours, on a case-by-case basis.

e. Multi-Pilot Flight Crew Duty. For logistics, support, or transportation flights (including F and R) of aircraft with an operable autopilot installed and used, conducted by a minimum crew of at least two pilots, the maximum crew duty period may be 16 consecutive hours. The ACO Manager or Flight Test Manager may grant extension to the crew duty period to 24 consecutive hours provided the crew consists of at least one additional pilot to that listed above and crew rest facilities acceptable to the crewmembers are available.

f. Helicopters. Pilots in single-piloted helicopters are limited to a maximum of 6 flight hours in a 12-hour crew duty period.

g. Fatigue Issues. It is the responsibility of all flight crewmembers, and the Flight Test Manager, to remain cognizant of the varying duties placed on flight crewmembers and to bring to the attention of the Flight Test Manager, or ACO Manager, an activity or group of activities that place a crewmember in a stressful or chronic fatigue situation.

207. Recording Flight Time. AIR pilots shall record all flying (including simulator), both rental and job task that is government paid or sponsored, on FAA Form 4040-6 or "Crew Data Only Worksheet". FAA Form 4040-6 contains purposes of flight codes to capture currency, training, certification testing, production testing, and military flight times. Personal flying that is not government paid or sponsored may be recorded in the same manner when used for currency or proficiency requirements.

208. Recordkeeping. Consists of maintaining individual crewmember flight record folders, office records and files, and a Flight Activity and Crew Tracking System (FACTS) database.

a. Crewmember Flight Record Folder. A flight record folder or binder will be maintained for each flight program participant. Flight records may be maintained

either by directorate staff or by the ACOs. The records will be maintained in a designated secure area. Standardized binder dividers, AC Form 4040-64 (NSN 0052-00-626-5000) are stocked in the FAA Logistics Center and are available through normal supply channels. The folder or binder will include those items listed in figure 2-5.

b. Office Records and Files. Each Office will maintain files of Forms 4040-6, "Crew Data Only Worksheet", and aircraft rental files as depicted in Figure 2-6.

c. Flight Activity and Crew Tracking System (FACTS). FACTS is the national data system and the official database for the FAA Flight Program. It provides a single database of aircraft operations, maintenance, inventory control, facility data, aircraft use, crew data, and management information immediately accessible to system users for management of the FAA Flight Program. FACTS has a variable cost reporting capability as required by OMB Circular A-126 (revised). FACTS is used to capture flying done within and outside the FAA Flight Program. FACTS is used by management to determine budget requirements and expenditures to achieve the most effective distribution of aircraft/simulator rental funds to test pilots who must rely on such rentals for maintenance of pilot proficiency and currency. FACTS tracks currency requirements for flight test pilots and flight-test engineers.

(1) FACTS Forms. The following forms are used to document the flight program activity. These forms, and instructions for completing the forms, are located on the AIR Flight Program Sharepoint site. Access to the Sharepoint site is available only from within the FAA server system. At the Sharepoint site, go to FACTS tab. Located there are these forms and instructions for completion of the forms. These forms, completed by individual crewmembers, provide the data for entry into the electronic system by the FACTS Administrator at each directorate.

(a) FAA form 4040-2 AIR. The FAA Crewmember Check Record is used to document all AIR Flight Program crewmember check flights. These forms are retained in each crewmember's flight record folder.

(b) FAA form 4040-6 AIR. The Aircraft/Simulator Request and Approval Data form is used to document crewmember's flight authorization requests for use of rental program aircraft, management approval of crewmember requests, and crewmember accomplishments during the flights. The form may also be used to document crewmember accomplishments using out-of-agency aircraft (i.e. crew data only).

(c) FAA form 4040-7 AIR. The Flight Program Crewmember Authorization and Data form is used to document and approve an AIR Flight Program crewmember's initial flight program designation and authorization. Changes to the program designation are also documented as they occur.

(d) FAA form 4040-7A AIR. The Flight Program Crewmember Data Entry form is used to document an AIR Flight Program crewmember's FACTs information, including training course completions, currency dates and any other information required to be present in FACTs or crewmember's file. This form only requires the crewmember's signature. Management approval is not required.

(2) FACTS - Office Work Instruction: A work instruction document on what information to enter into FACTS and how to enter it is located on the AIR Flight Program Sharepoint site.

d. Electronic Learning Management System: The agency's electronic learning management system is the official system of training records. Training received, especially training required to maintain flight status, must be recorded in this system and not just in FACTS. In many cases, training is recorded automatically into the learning history. In others, however, it is necessary for the crewmember to provide documentation to an AIR Training Manager to facilitate the entry

e. Record Retention.

(1) The following figures provide participant record retention requirements.

Figure 2-5 Participant Record/File.

Record	*Description*	*Retention*
4040-7	Authorizing entry in program – one required for each **aircraft and participant** category *(check permanent block)*	1 year after participant's separation
	For FAA instructor pilot and check airman designation and removal	1 year after participant's separation
	For change in **participant category** other than instructor pilot and check airman (e.g. PIC, SIC, etc.)	Until superseded
4040-2	Initial qualification in aircraft category for participant category assigned	1 year after separation
	Continuing (recurrent) proficiency in participant and aircraft category	Most recent
Medical	Latest Copy of *Actual* Medical	Until superseded
Participant Certificate(s)	Latest Copy(ies) of *Actual* Certificates necessary for duty position	Until superseded
CFI Certificate(s)	Latest Copy(ies) of *Actual* Certificates necessary for duty position	Until superseded
Flight, physiological, and survival training (when required)	Latest Copy of Certificate of Completion	Until superseded or 1 year after separation
CRM Training – Initial	Latest Copy of Completion Certificate	1 year after separation
CRM Training – Recurrent	Latest Copy of Completion Certificate	Until superseded or 1 year after separation

Figure 2-6 Office Record/File

Record	*Description*	*Retention*
4040-6	Aircraft request and use record	3 years
Crew Data Only Worksheet	Used in lieu of FAA Form 4040-6	3 years
Aircraft Rental Files	(For AO/administrative person)	5 years

(2) Participant Transfer Instructions. When a participant transfers from one organization to another, e.g., from one office to another, from one region to another, from a region to Washington headquarters, etc., the following procedure must be completed:

(a) Responsibilities of Losing Organization.

1. Initiate an FAA Form 4040-7, completing:

- The *Permanent File Copy* check box,
- The ACTION *Transfer* check box,
- The *Date*,
- Item 2 – *Crew Number* and *Transfer To*,
- Item 3 – *Name*, and
- Item 11 – *Remarks/Justification.*

2. Attach the form to the participant's flight record folder and forward to the gaining organization as soon as possible, but no later than 60 days, after notification of transfer.

(b) Responsibilities of Gaining Organization.

1. As soon as possible, but no later than 30 days after receipt of the flight record folder, change the participant's crew number in Item 2, *New Crew Number*,

2. Notify the FACTS program analyst of the crew number change and transfer,

3. Complete the remaining items of the FAA Form 4040-7 and properly approve the form,

4. Have the data entry clerk add the participant to the flight program database, and

5. File the FAA Form 4040-7 in the individual's flight record folder.

209. Use of Rental Aircraft for Transportation of FAA passengers. Within AIR, rental aircraft are not used for transportation of passengers. The Rental Aircraft Program in AIR is for the primary purpose (mission) of annual flight currency and proficiency requirements of AIR Flight Test Pilots who are active Flight Program participants. Use and approval of rental aircraft are contained in paragraph 202. Currency requirements and rental aircraft qualification requirements are contained in paragraph 204. Any other use of Rental Program aircraft must be requested, reviewed and approved in accordance with the procedures established in Chapter 2, Order 4040.9.

210. Determining Airworthiness and Aircraft Maintenance Procedures

a. Rental Aircraft. Prior to making rental contracts/agreements pilots will make a one-time initial review of maintenance records and procedures with the local Fixed Base Operator (FBO) or aircraft owner, and ensure that aircraft to be rented are in airworthy condition and that the maintenance procedures are acceptable to the FAA.

b. Flight Test Aircraft. For flight test operations, Part I of the Type Inspection Authorization (TIA) should be used to establish aircraft airworthiness in accordance with Order 8110.4. Flight test crewmembers must obtain a release from a Manufacturing Inspection District Office (MIDO) representative prior to flight. Some flight test aircraft are operated under military auspices and do not have a civil

airworthiness certificate. In these cases, the test aircraft would be released using GFR procedures.

211. Weight and Balance Procedures

a. General Requirements. All crewmembers must ensure that weight and balance are within limits and will remain within limits throughout the flight. This applies to rental and job task aircraft. Flight test aircraft may deviate from previously approved weight and balance limits provided the flight-testing requires such deviations and the requirements stated below are observed.

b. Flight Test Aircraft Ballast Requirements. FAA Order 8110.4C Para graph 5-15.b. (3)(c) states, *"Flight Loadings—The manufacturing inspector should determine if the applicant carried out the various test loading conditions specified by the flight test specialist. This includes a determination that the ballast used is accurately weighed, located, and safely secured."*

(1) All weight and Center of Gravity (c.g.) requirements must be specified in the approved flight test plan for each test condition.

(2) Approved engineering documentation must be provided to the manufacturing inspector to define the ballast, the location for the ballast to be installed, and the method used to secure it safely to the airframe structure.

(3) All critical loadings should be weighed; in addition, they should be checked (conformed) after the aircraft has been loaded. Critical loadings will be defined as those that are added to achieve either the forward or aft c.g. limit or to obtain the maximum weight condition. The crew should be onboard for the weighing whenever possible. Stand-ins of comparable weight may be used if the crew is not available. Calibration data for the scales should be included in the instrument calibrations submitted in the Type Inspection Report.

(4) The FAA FTP makes the final acceptance of the test aircraft for flight, as it relates to the operation of the aircraft and the integrity of the test.

(5) In cases of military aircraft certification, an equivalent process must be followed.

CHAPTER 3. FLIGHT OPERATIONS

CHAPTER 3 FLIGHT OPERATIONS

300. Applicability. The guidelines and procedures of this chapter are applicable to AIR flight operations. In general, flight operations for Flight Test Aircraft also interface with the requirements of Title 14 to the Code of Federal Regulations (14 CFR) Part 61 and 91, and individual aircraft owner/manufacturer requirements which may (and often do) include their own extensive flight operations guidelines and procedures. Flight operations for FAA Aircraft, also interface with FAA Order 4040.9, 14 CFR Part 61 and 91, and local Fixed-Base Operator (FBO) and/or aircraft owner rental requirements. These procedures apply unless covered by flight test risk assessment or established company procedures.

301. Pre-Departure Procedures.

a. Command and Control.

(1) Command. Aircraft shall be flown only under command of the pilot authorized by proper authority to make the flight. This pilot shall be designated as the pilot-in-command (PIC). The PIC is directly responsible for and has the final authority as to the safe and orderly conduct of the flight from the time preparation for the flight begins through the termination of the flight and all associated procedures. The PIC ensures the aircraft is operated in accordance with approved operational procedures. The authority and status of the PIC and the status of other occupants of the aircraft shall be definitely understood prior to flight. The authority and responsibility of the PIC for a flight or series of flights may not be transferred to another individual except as required by emergency circumstances. The fact that the PIC may relinquish physical control of the aircraft to another pilot does not alter his or her basic assignment of authority and responsibility for the flight.

(a) Primary Flight Controls. For rental aircraft, the PIC determines who will operate the primary flight controls during all phases of flight. Under normal circumstances, only a person who is designated as a pilot is permitted to operate the flight controls. The PIC, unless the PIC is an instructor, check pilot, or check airman giving instruction or conducting an evaluation, should operate the primary flight controls when marginal flight conditions exist, or when potentially hazardous operations are undertaken.

(b) Transfer of Flight Controls. All changes in the physical control of the aircraft's primary flight controls shall be made in a positive manner. Simple voice procedures may be used to make the transfer. The pilot exercising control is responsible until the relieving pilot verbally acknowledges acceptance of the controls. The final responsibility for the safe conduct of the flight, however, remains with the PIC. The PIC shall physically assume control of the aircraft immediately if any confusion exists as to who has control.

(2) Flight Control.

(a) Flight Plans. Instrument Flight Rules (IFR) flight plans should be filed whenever practicable. When departing from locations where facilities for filing flight plans are unavailable, the flight plan may be filed in the air immediately after departure. Flight plans are not required for Visual Flight Rules (VFR) flights in the local flying area, provided weather is forecast to

remain VMC for the duration of the proposed local flight plus one hour. The local flying area is considered to be within 50 nautical miles (nm) of the departure point and communicating with local ATC; e.g., Tower, Approach Control, or Departure Control. Annotate in the Remarks section of the flight plan, "FAA training flight."

(b) Dispatch. The PIC is the dispatching authority for rental aircraft once a flight is properly authorized. FAA Form 4040-6 will contain the proposed route of flight, type of flight plan, estimated time of departure (ETD), estimated time enroute (ETE), estimated time of return (ETR), and FBO or rental agency. The person who approves the flight (Block 8A of Form 4040-6) or their representative will retain the Form 4040-6 while the flight is in progress. The flight is considered closed when 1) the flight is terminated, and 2) the associated flight plan is closed, and 3) the PIC has notified the person holding the Form 4040-6 that the flight is complete.

(c) Changes/Deviations. Changes that will result in an appreciable increase in the estimated flight hours or cause a substantial delay will require notification and approval of the participating organization's official having jurisdiction over the use of allocated flight hours.

(3) Communication. Clear, concise communication between crewmembers is essential. Any uncertainty regarding the safety of flight shall be questioned and satisfactorily resolved before that operation is conducted or continued. It is the responsibility of any crewmember who notes a deviation from a safe flight / cockpit procedure to immediately call it to the attention of the PIC.

b. Pre-Flight Procedures. Prior to flight, the PIC shall become familiar with all available information concerning that flight (as required by FAR 91.103).

(1) Flight Planning. The PIC shall ensure the following flight planning steps are completed prior to flight. These steps can normally be completed before arriving at the aircraft.

(a) Flight Authorizations / Documents. AIR crewmembers participate in flying operations either as part of the AIR Flight Program for training/currency/proficiency using Rental Aircraft, or as part of a certification program using aircraft in the possession of a certification applicant (Flight Test Aircraft).

1. Test Flights (TIA/LOA). Certification test flights are authorized using a Test Inspection Authorization (TIA) or Letter of Authorization (LOA). For Test Aircraft, the FAA FTP / FTE shall ensure an approved TIA or LOA (to include an approved Risk Assessment) is complete and available.

2. Rental Aircraft Flights (FAA Form 4040-6). Rental aircraft flights are authorized using FAA Form 4040-6. The PIC will ensure Form 4040-6 has been completed, approved, and a copy left with the appropriate Branch manager, or their designated representative.

(b) Pilot and Medical Certificate - Current and Available**.**

(c) Pilot Currency. FTPs will maintain day passenger carrying currency in accordance with 14 CFR Part 61 and 91. The FAA FACTS system will be the primary tool used to track pilot currency. Annual flight evaluations for FTPs will be conducted in accordance with FAA Order 4040.9 and documented in each individual flight management binder.

(d) Weather Information. Check departure, destination, and alternate weather to ensure these facilities meet weather minimums, wind restrictions, and runway/landing area criteria requirements (see Weather Requirements – para 303.). Weather sources include:

1. FAA Flight Services – 1-800-WXBRIEF (992-7433)

2. Automated Terminal Information Service (ATIS)

3. Automated Weather Observing System (AWOS)

4. Automated Weather Surface Observation System (ASOS)

5. International weather reporting agencies

6. Department of Defense weather reporting services

7. Weather and flight planning services are available through the following:

a. Weather Service International

b. Jeppesen Data Plan

c. Direct User Access Terminal Service (DUATS).

(e) Weather Brief. Should cover at least the following:

1. Adverse weather

2. Synopsis of current weather

3. AIRMETS and SIGMETS

4. Surface analysis over route of flight

5. Area forecast

6. En Route forecast

7. Destination forecast and current terminal weather

8. Departure forecast and current terminal weather

9. Winds and temperature aloft

10. NOTAM's and PIREP's. Should be requested during the weather brief.

(f) Fuel Requirements. Taking meteorological factors and known traffic delays into account, ensure the fuel quantity at departure is sufficient to satisfy fuel and reserve requirements of FAR Part 91.151(VFR) and 91.167(IFR).

(g) Flight Plan. The PIC will ensure a flight plan is filed if required (see para 301.a. (2) (a)) and must advise their direct supervisor (or designated representative) of the aircraft's estimated departure and arrival times.

(2) Flight Preparations. The PIC (normally after arrival at the aircraft) shall ensure the following flight preparations are completed:

(a) Pre-Flight Inspection (Interior / Exterior). A thorough exterior and interior visual inspection shall be conducted by a flight crewmember to determine if the aircraft is in condition for safe flight. This includes the following:

1. Baggage and Ballast. Check location, weight, and security

2. Aircraft Security. Check for hidden devices that could jeopardize the safety of the crew and passengers.

3. Frost, Snow, Ice. Ensure all frost, snow, or ice has been removed from the aircraft in accordance with the appropriate aircraft flight/operations manual.

4. Survival Equipment. If Flight Test or Rental Aircraft are equipped with survival equipment, FAA crewmembers should ensure they have received appropriate egress, physiology, and survival equipment training prior to conducting any extended flights over water, or remote desert/arctic areas. If the aircraft is not equipped with appropriate survival equipment, flight operations will not be conducted outside of gliding distance to land, or over desert/polar regions.

5. HAZMAT. Hazardous materials are not to be carried on Test or Rental Aircraft unless specifically authorized on the TIA/LOA, or on FAA Form 4040-6.

6. Documents. Ensure all required/appropriate documents are on board and in order, to include:

a. Aircraft Registration Certificate.

b. Aircraft Airworthiness Certificate or FAA Non-certificated Public Aircraft Document (limited to RandD aircraft).

c. Weight and Balance Information.

d. MEL / CDL. Minimum Equipment List (MEL) / Configuration Deviation List (CDL). When a MEL is approved for use, this document is part of the appropriate aircraft operations manual or airplane flight manual and shall be used to determine if a flight may be initiated with inoperative aircraft equipment without issuance of a special flight authorization. Certain flight manuals may contain a CDL prepared by the manufacturer. Such lists may be used only if there is no approved MEL for that aircraft.

e. Passenger Manifest. Ensure a passenger manifest, including emergency contact information for each passenger, is left with a responsible party at the point of departure. (FAA Form 4040-6 may be used in lieu of a passenger manifest).

f. Flight Manual (Limitations, Performance, Systems). A current Aircraft Flight Manual or Operations Manual.

g. Aircraft Logbook or Records. (Not required to be in aircraft, but should be available for inspection).

h. Maps / Charts. Appropriate and current maps, charts, instrument approach charts, cockpit checklists, and related material.

i. Credit Cards. Appropriate credit cards, purchase order forms, etc.

(b) Servicing (Fuel and Oil). The PIC will ensure the aircraft is properly/ adequately serviced for the planned flight.

1. No smoking within 100' of aircraft

2. Electrical Switches off

3. Ground cable

4. Correct fuel grade and amount

5. Check for water in fuel (fuel samples should be disposed in proper containers).

c. Brief / Debrief Requirements. A mission briefing and debriefing, involving the PIC and all participants involved, will be conducted before and after every flight. The purpose of the brief/de-brief is to promote safety by ensuring that all parties are aware of relevant flight parameters, clearly understand their role and responsibility with respect to the flight, and capture any lessons learned.

(1) Flight Test / Job Task Aircraft. The FAA Briefing Guide (App 2) will be used for all AIR test flights. This requirement is waived for test flights with applicants who have a FAA approved risk management process (to include briefing checklists).

(2) FAA Rental Aircraft. For FAA Rental aircraft a separate Flight Briefing Guide has been developed (see App 3).

302. Weather Requirements.

a. Weather Information Sources. The PIC shall use the US National Weather Service, a source approved by the US National Weather Service, or International Civil Aviation Organizations (ICAO). However, for an operation under VFR, the PIC may, if such a report is not available, use weather information based on that pilots own observations or on those of other persons competent to supply appropriate observations.

b. IFR Takeoff Minimums.

(1) Standard IFR Takeoff Minimums. The standard minimums for takeoff are 300 ft. ceiling and 1 statute mile visibility, or the minimums for the lowest suitable instrument approach for departure airport. In addition, these minima may be waived if required by a specific test condition and after passing appropriate safety reviews.

(2) Takeoff Minimums at Airports with no Published Instrument Approach Procedures. Rental aircraft may takeoff from airports that have no instrument approach procedure provided the ceiling is at or above 300 feet and visibility is at or above 1 mile (1/2 mile for helicopters), and the pilot has studied local terrain

and obstructions and determined that a safe takeoff can be made. If the airport is not serviced by the National weather service or other authorized official observer, the PIC shall make weather observations and determine when weather conditions are satisfactory for flight.

c. Crosswind Guidelines. When published, the aircraft maximum "demonstrated" crosswind should be observed. When runway surface conditions deteriorate to the point where effective braking action or directional control is measurably reduced, the maximum allowable crosswind component shall be reduced accordingly. AFM contents vary considerably, and may not contain references to any limiting crosswind values. The PIC must assess their recency of experience with adverse conditions and aircraft type and use sound judgment regarding decisions to takeoff or land.

d. Thunderstorms / Turbulence. Aircraft shall not be operated into known or forecast severe turbulence or thunderstorms. Areas of lesser activity may be traversed if the aircraft involved is equipped with an operating radar and/or other weather avoidance systems, and the route of flight is altered to avoid severe weather.

e. Icing.

(1) Aircraft shall not be operated into known or forecasted severe icing conditions. Aircraft may operate into light to moderate icing areas if approved for flight in icing conditions. The PIC shall, after any encounter with super-cooled large water droplets (freezing rain or drizzle), request from ATC an immediate change to course or altitude to exit those conditions.

(2) Takeoff shall not be attempted until frost, snow or ice is removed:
- **(a)** Frost, snow, or ice adhering to any rotor blade, propeller, windshield, or power-plant installation or to an airspeed, altimeter, rate of climb, or flight attitude instrument
- **(b)** Snow or ice adhering to the wings or stabilizing or control surface.
- **(c)** Any frost adhering to the wings or stabilizing or control surface.
- **(d)** More restrictive limitations will apply if prescribed by an AFM or POH.

f. Snow, Slush, Water Limits. A takeoff will not be attempted with more than 1/2 inch of wet snow, slush, and/or water, or 4 inches of dry snow on the runway. If the limitations listed in the aircraft flight or operations manual are more stringent, the aircraft manual limitations shall apply.

g. Helicopter Takeoff and Landing. Helicopter pilots should use snow, dust, or sand operating procedures during takeoff and landings to prevent "white-out" during helicopter hover, takeoff, and low speed operations.

h. Enroute and Approach. All published minimum safe altitudes will be adhered to the per 14 CFR 91.177 while enroute and transition to approach.

i. IFR Landing Minimums.

(1) Weather conditions at initiation of the approach procedure and at the beginning of the final approach segment will be at or above the authorized IFR landing minimums for that procedure.

(2) If a pilot has begun the final approach segment of an instrument approach procedure for the purpose of landing at an airport under paragraph **h** (1). above,

and a later weather report indicating below minimums is received after the aircraft is:

(a) On an instrument landing system (ILS, LNAV/VNAV)final approach and has passed the final approach fix (FAF); or

(b) On an airport surveillance radar (ASR) or precision approach radar (PAR) final approach and has been turned over to the final approach controller; or

(c) On a final approach using a very high frequency omni-directional range (VOR), non-directional beacon (NDB), or comparable approach procedure, and the aircraft has passed the appropriate facility, or the final approach fix (FAF).

The approach may be continued and a landing made if the pilot finds, upon reaching the minimum descent altitude (MDA) or decision altitude (DA), that actual weather conditions are at least equal to the minimums prescribed for that approach.

303. Flight Procedures.

a. Authorized Flight Maneuvers.

(1) Test Aircraft. During flight test operations, all maneuvers to be flown must be part of an approved test plan as authorized under a TIA or LOA and accompanied by an approved flight test risk assessment. The test plan / risk assessment will identify appropriate maneuver limitations. LOA flights may be conducted without an approved test plan, however, the LOA must specify the scope of the flight and include an approved risk assessment.

(2) Rental Aircraft. During training / proficiency flights in rental aircraft, the maneuvers described in the Commercial Pilot Practical Test Standards (PTS) and flight test maneuvers as described in AC 23-8, AC 25-7, AC 27-2, or AC 29-3 (as appropriate) are the only maneuvers authorized. When rental aircraft manuals include a maneuvers package, the minimum altitudes specified for the maneuvers therein shall be observed as aircraft limitations. In the absence of a maneuvers package or specific AFM limitations, the following maneuvers are limited as indicated:

(a) Approaches to stalls, maneuvering at minimum speeds, and unusual attitude recoveries shall be conducted at 3,000 feet AGL or above.

(b) Practice stalls are prohibited with asymmetric thrust settings, or when the propeller of one engine is feathered.

(c) Spin recoveries shall be COMPLETED at 3,000 feet AGL or above.

(d) Engine shutdown and restart in flight on multi-engine aircraft shall be conducted at 3,000 feet AGL or above, and in the immediate vicinity of a suitable airport.

(e) Vmca practice is prohibited when the propeller of one engine is feathered or the engine is shut down. Zero thrust setting should be used. Minimum speed is limited to stall warning. This maneuver shall be conducted at 3,000 feet AGL or above.

b. Use of Autopilot. When flight conditions permit outside surveillance, maximum use of the autopilot is encouraged to make full use of the "see-and-be-seen" principle to avoid midair collisions.

c. Altitude / Approach Awareness Call-out Procedures (Rental Aircraft). The altitude awareness call-out procedures listed below shall apply:

(1) Climb or Descent. During climb or descent to an ATC assigned altitude, the PNF shall set the assigned altitude alerter (if equipped) and point to it. The other pilot shall then verbally acknowledge the set target altitude. The PNF shall call out approaching assigned altitudes.

(a) 1,000 feet from the assigned altitude or 500 feet from the assigned altitude if the altitude change is less than 1000 ft (climbing or descending)

(b) Passing 10,000 feet (climbing or descending)

(c) Passing 18,000 feet (climbing or descending)

(d) 1,000 feet above the initial approach altitude, or if VFR, 1,000 feet above field elevation.

(2) Final Approach.

(a) Final Approach Fix Inbound

(b) 1,000', 500', 200' and 100' above MDA or DA

(c) Descent rates in excess of 1,000 ft/min

(d) Reaching DA or MDA

(e) Reaching Missed Approach Point

d. Surface Wind Restrictions (Practice TO / Landing). Takeoff and landing practice in Rental Aircraft is not authorized when the total wind, as reported by the weather bureau or the control tower, reaches or exceeds the following: (In no case may the manufacturer's limitations be exceeded).

(1) Glider: 25 knots

(2) Airplane Single Engine Sea: 20 knots

(3) Airplane Single Engine Land: 30 knots

(4) Small Airplane Multi-engine Land (<12,500 lbs): 40 knots

(5) Helicopters: 30 knots

(6) Large Airplane (>12,500 lbs.): 50 knots

(7) Balloon: 10 knots

(8) Airplane Multi-engine Sea: 20 knots

(9) Gyroplane: 30 knots

(10) Airship: 20 knots

e. Practice (Simulated) Emergency Descent. The following procedures are to be followed when simulated emergency descents are being practiced in Rental Aircraft:

(1) The simulated emergency descent may be terminated when the airplane is in the proper configuration and stabilized at the desired pitch attitude and airspeed/Mach number. Minimum altitude during recovery is 4,000 feet AGL.

(2) Simulated emergency descents shall not be accomplished through or near clouds, except when cleared to do so by air traffic control.

(3) Prior to and during simulated emergency descents, maximum attention shall be given to remaining clear of other aircraft by visual alertness and assistance from air traffic control, when possible.

f. Landings.

(1) Touch-and-go landing procedures. Before landing, the pilot must brief the copilot on the procedures to be used and exactly which steps will be performed by each pilot.

(2) After-Landing Checklist. Complete the landing roll and exit the runway before operating any levers or switches unless check list or unusual circumstances call for such action sooner.

g. Helicopter Autorotation Landings. Helicopter operations have accounted for a number of FAA accidents. Most of these accidents have been associated with power-off autorotation landings (one of the most critical and demanding maneuvers required of helicopter pilots). When conducting practice helicopter autorotation landings, the following limitations shall be observed:

(1) To ensure that the approving authority is aware that practice touchdown autorotation landings will be conducted on a given flight, a specific reference to the proposed autorotation activity will be made in block 6 of FAA Form 4040-6.

(2) Power off autorotation landings shall not be conducted at facilities where fire/crash equipment is not available.

(3) Practice autorotations shall not be initiated from within the shaded area of the Height-Velocity (H-V) diagram.

(4) Practice autorotation landings should be conducted only after a thorough evaluation of the existing density altitude and wind conditions. The limitations and capabilities of the aircraft in use and the level of pilot proficiency should also be considered.

(5) A positive wind direction indicator must be available to the pilot. The autorotations will be planned so the final approach and landing/recovery will be within 20 degrees of the wind direction.

(6) The PIC of a flight during which touchdown autorotation landings will be practiced shall be current in accordance with chapter 2 of this manual. In addition, within the previous 60 days, he/she shall have logged 2 hours pilot time and made at least five touchdown autorotation to power-off landings in that type aircraft. These landings will be made with a fully qualified and current PIC aboard.

(7) Prior to making power-off autorotation landings, the pilot shall, on the same flight, make a minimum of three power recovery autorotations and three hovering power-off landings.

(8) When two pilots are practicing autorotations, the PIC shall ensure that prior to commencing each autorotation the expected actions of each pilot and the planned mode of termination (power recovery or power-off landing) are agreed upon. Intentions to deviate from the agreed-upon maneuver should be positively and timely communicated between the pilots.

(9) Autorotation landings shall be conducted to a prepared and maintained surface. All autorotations shall be initiated at a point from which a safe landing can be made in the event of an actual engine failure.

(10) Practice autorotations shall not be conducted from sunset through sunrise.

(11) There shall be no passengers aboard.

(12) Autorotations should normally be practiced later in each flight when personnel are more proficient and aircraft gross weight is lower.

(13) Power recovery autorotations (versus touchdown autorotation landings) should be considered as a means to meet desired training goals.

304. Post Flight Procedures.

a. Flight Plan / Form 4040-6 Closure. The PIC shall ensure the flight plan is closed with ATC or the local Flight Service Station, and the PIC's direct supervisor (or designated representative) is notified of the flights safe arrival.

b. Parking and Security. The PIC is responsible to ensure the aircraft is properly parked and secured. When an aircraft is left for an extended period or parked overnight, the following precautions shall be taken:

(1) Close and lock all doors.

(2) Remove or stow any ladders, steps, or maintenance stands.

(3) Ensure that all inspection plates are secured.

(4) Install dust covers / plugs / that are provided for the aircraft.

(5) Park the aircraft in a well-lighted area, if possible. If leaving aircraft in an unlighted area, see FAR 91.209.

(6) Secure the aircraft with tie-downs and chocks.

(7) If severe weather is forecast, make every effort to hangar the aircraft, or fly it to a non-threatened area if practical.

305. Emergency Procedures.

a. Authority to Deviate. In an emergency that requires immediate action, the PIC may take any action considered necessary under the circumstances. The PIC may deviate from prescribed operating procedures, weather minimums, and Title 14 to the Code of Federal Regulations (14 CFR), to the extent required to assure the safety of the aircraft and its occupants.

b. Emergency Frequency Monitoring/Alerting/Search. Crews of Rental Aircraft are encouraged to monitor emergency frequencies and, upon request, take part in actual searches. The procedures to be used by FAA flight crews regarding emergency locator transmitter (ELT) monitoring, alerting, search, and reporting of related flight-hour expenditures include:

(1) Monitoring. Depending upon installed equipment, FAA crews are expected to monitor emergency frequencies (243.0 / 121.5) as mission and operational conditions permit.

(2) Alerting. Emergency frequency transmissions shall be reported immediately, in detail, to an air route traffic control center (ARTCC), flight service station (FSS), or air traffic control tower operator who, in turn, will alert appropriate search and rescue authorities.

(3) Search. Depending upon circumstances such as remaining fuel, existing weather, mission urgency, etc., crews of Rental Aircraft will be expected to divert from the assigned mission and attempt to locate, identify, and render such assistance as possible to the source of the emergency frequency transmission. Findings will be reported to air route traffic control center (ARTCC), flight service station (FSS), or air traffic control tower operator.

(4) Documentation. Flight hours that are expended while rendering assistance in search activities will be reported on FAA Form 4040-6 and will include documentation of known pertinent details in the remarks section.

c. Engine Failure. The PIC shall land at the nearest suitable airport if one of the engines becomes inoperative.

d. Hijack Procedures. The *Aeronautical Information Manual* (AIM) prescribes the procedures and signals which may be used by pilots of hijacked aircraft to covertly make their situation known to air traffic control and to activate the appropriate assistance to ensure a safe resolution. This information is also available under the Emergency Procedures section of the DOD Flight Information Handbook.

e. Bomb Threat Procedures. The following immediate actions should be taken when there is reason to believe that a bomb has been placed on a Rental Aircraft.

(1) In Flight. The PIC shall land the aircraft as soon as possible. The passengers shall be notified and warned not to touch or move any bomb device they may find. The nearest ATC facility shall be informed and requested to notify the nearest civil aviation security office and appropriate civil authorities responsible for search, security, crowd control, and fire.

(2) On the Ground. The PIC shall immediately notify ATC (Ground Control / Tower) and request assistance (fire, police, security). Do not move the aircraft or attempt to locate the bomb. Evacuate the aircraft and warn people in the immediate area to stay clear.

f. Fire.

(1) Fire Hazards. Particularly on transportation flights, the PIC should assess the fire hazard introduced by the contents of any additional packages carried by passengers or other crewmembers.

(2) Re-setting Circuit Breakers. Popped circuit breakers can be a fire hazard. Unless directed otherwise by the Airplane Flight Manual (AFM), the following guidelines for resetting circuit breakers are recommended:

(a) No circuit breaker should be reset more than once.

(b) Never hold a circuit breaker in.

g. Ditching.

(1) Rescue Considerations and Approach Planning: While personal inflation devices may solve the immediate concern for floatation, water temperatures are often a serious constraint in water survival. Consequently, it is important to consider the following concepts that may aid in reducing the time to rescue. Commensurate with AFM procedures and a suitable approach, attempt to touch down as close to a shoreline as possible without endangering people on the surface. If you are too far from the shoreline try to plan the approach so that touch down is within the view of surface vessels that may be able to attempt rescue or provide vital information to rescue assets.

(2) Approach: Commensurate with AFM procedures, consider the following guidelines: If possible, land parallel to the major swells, preferably with a headwind component. The direction of the major swells is best assessed from an altitude of 500 to 1000 feet. Use the radio altimeter, if installed, to determine height above the water. Attempt to impact the water at the AFM recommended airspeed at a near zero rate of descent.

(3) Egress: Put on life vest prior to water landing. Inflate the life vest after exiting the aircraft. Assemble crew and passengers in a circle.

h. Survival. Any time an aircraft is overdue, missing, or sends a radio distress call, the National Search and Rescue Plan is activated. The U.S Coast Guard is responsible for all maritime rescues and the U.S. Air Force is responsible for inland rescues in the United States. The predominate factor in survival is the will to live. Willpower alone has often been the key factor in reported successful survival incidents. Survival often depends on the ability to overcome stress and to continue to function effectively. Until rescued, crewmembers and passengers may be required to survive the elements with minimal resources. Whenever one is out of the aircraft, follow the appropriate survival guidelines outline below.

(1) General Survival Guidelines.

(a) Stay near the aircraft.

(b) Provide appropriate first aid.

(c) Organize the procurement of food, firewood, and water.

(d) Seek shelter.

(e) Inventory all usable emergency equipment.

(f) Organize the use of signaling devices. Include ELT or flares.

(g) Avoid dehydration.

- When searching for water, consider collecting dew off the airplane. Also keep in mind that animal trails may lead to water.
- Do not consume water unless it has been purified. Boiling water for 5 minutes is the easiest method.
- If possible, consume water about the same temperature as your body.

NOTE

Never eat snow. The snow crystals can cause damage to the mouth and tongue and will lower body core temperature.

- Drink plenty of fluids, even if you don't feel thirsty.
- Try not to eat unless you have ample water.

(h) If conditions are extremely cold:

- Keep head and extremities covered, if possible.
- Huddle together for warmth.
- Be alert for hypothermia.
- Avoid overexertion. Perspiration inside the clothing can decrease effective insulation and body temperature.

(i) If conditions are extremely hot:

- Stay in shade. Stay under shelter in the heat of the day. In the desert, scrape away at least 6 inches of sand to take advantage of cooler ground temperatures. Cover eyes from harsh sun.
- Limit your activity. Sleep during the day and work at night if there is enough light to see.
- Wear clothing to retain sweat. Keep head, body and back of neck covered.
- Be alert for heat-related illnesses.

(2) Additional Land Survival Guidelines: Build a Fire:

- Provides light, warmth, protection and is used for signaling.
- Position the materials to be burned so that plenty of oxygen can feed the fire. Several small fires heat more efficiently than one large fire.
- Use to boil water for purification.

NOTE

In the desert the temperature can be 100 degrees F or more during the day, then drop to below freezing at night.

CHAPTER 4 TRAINING AND STANDARDIZATION

CHAPTER 4. TRAINING AND STANDARDIZATION

400. General. This chapter prescribes the flight related training and standardization program for AIR flight-test personnel. The goals of the flight-test training and standardization program are to enhance safety and standardization of aircraft operations, and provide training relevant to the operations conducted.

401. Requirement for Training

a. Flight Test Training. AIR flight test personnel have global safety management responsibility. Therefore, training must receive service-wide prioritization, and the overall qualifications of AIR FTPs and FTEs must be considered when allocating training funds and assets. Immediate supervisors shall be involved in the process of identifying and approving flight training requirements. Available training must be flexible to meet the changing aircraft qualification requirements, based on anticipated certification projects and Continued Operational Safety (COS) requirements. The AIR flight test workload, certification schedules, and manufacturer's delivery schedules must be considered when prioritizing available training funds and assets. Prioritization of AIR flight test training is the responsibility of the Flight Program Oversight Committee (FPOC), and will be completed prior to AIR's annual Call for Training, to the extent possible. Training requirements and changes identified after the Call is submitted to AIR-500 must go through the same approval process..

b. Five-Year Flight Training Plan. Each Flight Test Manager/ACO Manager will develop and maintain a Five-Year Flight Training Plan for each assigned crewmember. The plan is updated annually, or as required, and approved by the Flight Program Oversight Committee (FPOC). The five-year training plan must include all flight program required training and must ensure that assigned crewmembers obtain the necessary training and ratings appropriate to their assigned responsibilities (Priority (1) training requirement). FTPs may be type rated or formally trained in:

(1) Single engine reciprocating airplane, both tricycle gear and tail wheel,
(2) Light reciprocating twin-engine airplane,
(3) Multi-engine turbo-propeller airplane,
(4) Business jets and/or regional jets,
(5) Narrow body transports,
(6) Wide body transports,
(7) Normal and transport helicopters (where applicable), and
(8) Any other special aircraft types that may be appropriate for the type TC or STC projects typically flown within the office's geographic area of responsibility (e.g., seaplanes, gyroplanes, gliders, LTA-balloons, LTA-airships).

NOTE:

Items (1) through (8) are not mission critical. However, it is the goal of AIR to have as many career FTPs as possible trained and experienced in these categories of aircraft. Previous training and ratings (e.g. military, airline, etc.) may be used to meet the above requirements.

402. Training Program Description

a. Scope. Training for AIR flight test personnel, both Flight Test Pilots (FTPs) and Flight Test Engineers (FTEs), includes the following:

(1) Flight test related technical (ground or in-flight) training.

(2) Flight test related flight training.

(3) Rental Aircraft (rental program) training.

b. Applicability. FTPs will participate in each of the types of training listed above. FTEs will participate only in the flight test related technical training.

403. Instructors and Check Airmen Training

a. Designation of Instructor and Check Pilots. Instructor pilots and check pilots may be designated as required by ACO managers from among suitably qualified, assigned FTPs. This designation shall be in writing and shall be documented on FAA form 4040-7. These pilots shall be used to provide training and proficiency checks for FTPs using rental program aircraft.

b. Recurrent Training. Check pilots must complete Academy or Academy-approved recurrent aircraft training courses which involve aircraft performance and operating techniques. Check pilots who do not receive formal FAA Academy recurrent aircraft training will attend, at least biennially, a formal training course approved by the FAA Academy which will assure their continued qualification in the necessary airman evaluation skills.

404. Training Resources

a. Academy Courses. Training courses such as FTP/FTE Initial Qualification (FAA28083), FTP/FTE Recurrent Qualification (FAA28273), Flight Test Related Technical training and Flight Test Related Flight training are scheduled by each Division/Directorate ATM in coordination with AMA-260 at the FAA Academy. Most of these courses are conducted by the FAA Academy or are Academy contracted with outside vendors.

b. Rental Aircraft. Rental aircraft may be used for certain types of training that can be obtained on the open market from local operators on an as needed basis. This must not conflict with any existing FAA contract courses or procurement policies.

405. Record Keeping Requirements and Processes

a. Training Records. Training records are maintained with the support of the Division/Directorate ATMs in the Agency's official electronic learning management system. Records are also maintained in FACTS. Individuals are to review their training records in the electronic learning management system as well as FACTs and the flight program hard copy folders, to ensure the data is accurate and that the crew member is current on all training and non-training requirements.

b. Flight Activity and Crew Tracking System. AIR will use FACTS to electronically document crewmember flight training activity, even though FACTs is not the official system of records for training. ACO managers and the FPOC will use this data to determine budget requirements and allocations to achieve the most effective

distribution of aircraft or simulator rental funds for FTPs to maintain proficiency and currency. See paragraph 207 for information on the forms required for submitting data to FACTS.

406. Initial, Recurrent, and Requalification Training.

a. Initial and Requalification Training. Each newly hired FTP or FTE [an FAA employee for less than two (2) years] is initially qualified by successfully completing a formal flight test training program coupled with on-the-job training. This manual should be cited as the authority for requesting this required initial training. Upon entering the AIR Flight Program, the following are considered Priority 1 training for all FTPs and FTEs. These courses include but are not limited to the following:

Table 4-1 (Initial Training)

Course Title	Course # or Providers	Due	Who	Notes
FTP/FTE Initial Qual.	**FAA28083**	**First 12 months**	**FTP, FTE**	Six week course. One-time requirement. Crewmember must attend training in a slot that is designated as equivalent to crewmember status. (i.e., A FTP must attend training in a designated FTP slot .)
CRM Initial	**FAA12062**	**First 12 months**	**FTP, FTE**	Both FTPs and FTEs require initial CRM at Oklahoma City or as part of Course FAA28083.
Physiological Training	**FAA00507** Civil Aeromedical Institute (CAMI), Military or approved civil facility	First 12 months , or within past 96 months. Must be prior to participating in flight tests above 10,000 feet, where oxygen equipment is normally used, or on pressurized aircraft that operate at altitudes above 25,000 feet	**FTP, FTE**	Hyperbaric chamber required for those who have never had training in a hyper-baric chamber. Previous altitude chamber training as a flight crew member of the U.S. Armed Forces, is an acceptable means of meeting the initial training requirements of this order. Participation of FAA personnel in flight tests who have not received this training must be considered in the risk assessment required by FAA Order 4040.26. FAA AIR personnel who have not completed this training may not participate in flight testing of aircraft whose pressurization systems are not mature.
Survival Training	**FAA00506** CAMI, Military or approved civil facility	**First 12 months**	**FTP, FTE**	All flight test crews must complete survival training. Survival training received while a flight crew member of the U.S. Armed Forces, satisfies this requirement.
Smoke Evacuation	**FAA00506** CAMI, OKC	**First 24 months**	**FTP, FTE**	Included with FAA00506
Flight Safety Officer Initial Training	**FAA12060**	**Prior to assuming FSO duties** (preferable) or within 12 months after assuming FSO duties	**Designated FPFSO and FFSO**	Based upon the agenda and upon AIR's request, the FAA Senior Flight Safety Officer may authorize an equivalency for FAA12060 if AIR conducts its own FSO training. This training is typically conducted in conjunction with the SETP Annual Flight Test Safety Workshops.

b. Recurrent Training and Qualification of Flight Test Personnel. Formal recurrent flight test training courses are outlined in the following table.

Table 4-2 (Recurrent Training)

Course Title	Course # or Providers	Due	Who	Notes
Recurrent FTP/FTE	**FAA28273**	**Every 4 years** (due 9/30 of the 4th fiscal year) after completing FAA28083.	**FTP, FTE**	Must attend training in a slot that is designated as equivalent to his/her actual AIR crewmember status. (i.e., A FTP must attend training in a designated FTP slot .)
Crew Resource Management Recurrent	**FAA12036 OR FAA12037 OR FAA12066 OR FAA27200031 (AIR CRM Recurrent - WBT)**	**Every 36 months after completing FAA12062 or FAA12066**	**FTP**	12036 Oklahoma City Frasca (Baron) Trainer 12037 Oklahoma City Boeing 737 Simulator 12066 National Test Pilot School recurrent
Crew Resource Management Recurrent	**FAA12066** or approved equivalent	**Every 4 years** (due 9/30 of the 4th fiscal year) after completing FAA12062.	**FTE**	FAA12066 is included with FAA28273
Physiological Training without Chamber	**FAA22000014** Civil Aeromedical Institute (CAMI), Military or approved civil facility	**Every 48 months after completing FAA00507**	**FTP, FTE**	May also attend FAA00507.
Physiological Training with Chamber	**FAA00507**	**Every 96 months**	**FTP, FTE**	Altitude chamber shall be completed every 96 months. The normabaric chamber may by used for this training.
Survival Training Recurrent	**FAA00506** or approved equivalent. Civil Aeromedical Institute (CAMI), Military or approved civil facility	**Every 48 months**	**FTP, FTE**	Commercially available courses may be appropriate and may be substituted to meet this requirement as approved on a case by case basis.
Flight Safety Officer Recurrent Technical Training	**FAA12061**	**Every 24 months after attending FAA 12060**	**Designated FPFSO and FFSO**	Based upon the agenda and upon AIR's request, the FAA Senior Flight Safety Officer may authorize an equivalency for FAA12061 if AIR conducts its own FSO training. This training is typically conducted in conjunction with the Annual Flight Test Safety Workshops conducted by the SETP.
Annual Flight Test Safety Workshops	**FAA22000028** Flight Test Safety Committee of SETP	**Annually**	**Designated FPFSO**	Conducted annually

c. Flight Test Related Technical (Ground or In-flight) Training. The requirement for flight test related technical training is based upon individual ACO requirements as well as the full service office (FSO) concept. This training may be conducted by the FAA Academy or by other non-FAA agencies. This training should be documented in each FTP's or FTE's Individual Development Plan.

d. Flight Test Related Flight Training. Flight training for FTPs is based upon individual ACO requirements in accordance with the office's TC and STC activities. Training requirements are documented in each FTP's Five-Year Flight Training Plan discussed in paragraph 401. Normally each FTP will receive an aircraft initial type rating course as soon as possible after initial assignment. Additional initial qualification courses should be offered subsequently, based on the operational needs of the office and available training resources. *All FTPs will be scheduled to complete at least one recurrent training course annually in the class of aircraft appropriate to their expected work load, unless scheduled for initial qualification training in another type of aircraft the same year.* The recurrent training must be obtained in a formal course. If an FTP is involved with both fixed and rotary wing testing, recurrent training may be completed annually in each category.

e. Rental Aircraft (Rental Program) Checkouts/Training.

(1) Training in aircraft obtained using the rental program shall be in accordance with the basic requirements of Part 61 based on the type of rental aircraft available.

(2) FTPs will train to PIC level for participation in the rental program (see paragraph 204), and will maintain currency and instrument competency in these aircraft while participating in the rental program. These aircraft are operated under Part 91.

(3) Instructor pilots or check pilots designated by the ACO manager or by the organization providing the aircraft will conduct training and requalification training as required.

407. Waivers.

a. **Training Waivers.** Training requirements may not be met either for budgetary, scheduling or personal reasons. If training requirements of this manual cannot be met for any reason, then a waiver must be given to the individual so he/she can continue flight test duties. The waiver for training requirements can be completed electronically through an e-mail process. The process is for either the crewmember or the crewmember's manager to request the waiver to the Flight Program Manager. The Flight Program Manager will issue all training waivers, and a copy of the waiver will be posted in the crewmember's folder until the requirement is fulfilled (unless it is a permanent waiver of a requirement). If the waiver is limiting, it will specify crew duty limitations.

(1) Budgetary based waivers. If the training cannot be completed for budgetary reasons, the crew-member's manager must initiate the waiver process and coordinate the waiver through the Directorate Manager. The waiver should

specify how the training deficiency will be addressed and when the requirement is expected to be completed.

(2) Scheduling based waivers. If the training cannot be scheduled before the non-current date, the crewmember will request the waiver through his/her manager. The crewmember must have scheduled the subject training prior to requesting the waiver and this should be stated in the request. The waiver request must specify the end date for the waiver.

(3) Personal waivers. If the training cannot be completed because for a personal reason, the waiver request should specify the personal reason. The crewmember will request the waiver through his/her manager.

b. **Flight Time Waivers**. Flight time waivers can only be issued for the annual 100 hour flight time requirement. The semi-annual flight time requirement is a hard, proficiency based requirement and cannot be waived. The annual flight time requirement must be issued by the pilot's Directorate Manager in memo format. This waiver must be filed in the pilot's Flight Program folder.

c. **Waiver Samples**: (Next page)

Your training for "Recurrent Flight Test Course" is waived as requested. Please enter this waiver in the *Remarks* section of FACTS, uncheck the requirement, and file a copy of this waiver in your file. The waiver should be removed after the training is completed.

Jim Richmond
Flight Program Manager

Rick E Pilot/ASW/FAA
ASW-111, Rotorcraft Directorate

04/07/2009 05:15 PM

To Jim Richmond/ASW/FAA@FAA
Cc Crewmember's Manager
Subject Request for Waiver

TO: AIR Flight Program Manager

Request a waiver for Recurrent Flight Test Pilot Course until July 31, 2009 . The Recurrent Flight Test Pilot Course has been scheduled for July 14 -23, 2009. Training could not be completed by the due date because there were a limited number of slots in the courses and too many pilots to be scheduled for FY09.

Rick Pilot

Federal Aviation Administration

Memorandum

Date:
To: John J. Pilot
From: Manager, Xxxxxxxxxxx Directorate
Prepared by: Level 1 Manager
Subject: Flight Time Waiver

During the past year you have accumulated _____ hours flying time, failing to meet your annual proficiency requirement of 100 hours.

Note: A paragraph describing why the pilot failed to meet the 100 hour minimum and any other mitigating information, such as completing annual flying training and maintaining basic currency requirements is appropriate.

Your 100 hours annual flight hour minimum is hereby waived.

Please closely monitor your flight time during FY XX+1 for currency and proficiency and make every effort to attain the minimum flight hour requirements specified in the Flight Test Operations manual.

John J. Manager
Manager, _____ Directorate

CHAPTER 5. AIR FLIGHT PROGRAM SAFETY MANAGEMENT SYSTEM (SMS) MANUAL

CHAPTER 5. AIR FLIGHT PROGRAM SAFETY MANAGEMENT SYSTEM (SMS) MANUAL

500. Introduction: The FAA Aircraft Certification Service (AIR) has embarked on implementation of a Safety Management System (SMS) for its Flight Program. Many components for proactive safety management required in the future SMS are currently in-place. Consequently, policies, procedures and management systems have been examined so an efficient plan to design and implement the SMS can be formulated. While this Section may be repetitive to other sections within this Manual and the FAA Orders, it is meant to provide a global view of the AIR Flight Program SMS.

501. SMS Overview: The strategic objective of the AIR Flight Program SMS is to reduce the safety risks associated with flight test operations to a level as low as practical.

a. The AIR Flight Program SMS is based on the following:

(1) The circumstances underlying flight test accidents usually result from the interaction of organizational and human factors.

(2) These inter-related factors are generally predictable.

(3) These conditions have been identified and are managed to keep the catastrophic loss of life, equipment damage and property damamge very low when conducting flight operations.

b. The AIR Flight Program SMS has the following general features:

(1) Clear accountability of and responsibility for safety risk management;

(2) Processes for the systematic, consistent and coordinated management of safety risks related to all aspects of the operation including flight test planning and flight test operations;

(3) The explicit and purposeful measurement, reporting and analysis of safety management outputs, outcomes, and of safety performance; and

(4) A positive safety culture where flight test crewmembers are aware of the SMS and their role in it, plus there is an open exchange of information on flight test safety management, including the identification and management of safety risks throughout the organization.

502. Safety Policy and Objectives

a. Management Commitment and Responsibility: This safety policy reflects our organizational commitment to safety to include the provision of necessary resources for its implementation. This policy has been endorsed by the FPE and reviewed semi-annually by the FPOC. The following supplements the Aviation Safety (AVS) Safety Policy documented in FAA Order 8000.370.

The objective of the AIR Flight Safety Program is to eliminate accidents through adherence to fundamental safety principles. The **AIR Flight Program Safety Policy** is:

(1) **Basic Policy:** The AIR Flight Program is committed to maintaining safety in flight testing and in all aspects of flight involving AIR flight crewmembers.

Specifically, the AIR Safety Policy provides a program that addresses safety during test, training and currency flights.

(2) **Commitment to SMS:** The AIR Flight Program is committed to the implementation of an effective Safety Management System, to the continual oversight of our safety system and to improving flight test safety. The AIR Flight Program SMS will strive to ensure risk in flight operations is minimized to the maximum extent practical in the advancement of our flight test mission. The details of the Safety Policy are contained in the AIR Flight Test Operations Manual (FTOM) and FAA Order 4040.26 (current edition). The FTOM details compliance with FAA regulatory requirements and clarifies guidance in FAA Order 4040.26. FAA Order 4040.26 details specific flight test risk management procedures. To promote flight safety, a Safety Significant Event (SSE) reporting system allows and encourages crewmembers to report safety related events for AIR–wide awareness without concern for reprisal.

(3) **Safety Review Process:** The AIR Flight Safety program incorporates Safety in Flight Test Operations to include conducting stringent reviews of certification flight test programs. These reviews target flight test planning and execution. All flight test crewmembers and other certification team members must participate in the Safety Reviews of certification projects requiring flight test. Additionally, AIR flight test personnel will work with industry and military counterparts to share lessons learned. We accomplish this integration through involvement with professional organizations and as a natural consequence of our work with industry and the military. AIR flight test currency training safety goals are spelled out in the AIR FTOM.

(4) **Management Support:** The AIR Flight Test Safety Program is directed and supported by the Director of the Aircraft Certification Service. An Executive Linking Member of the Aircraft Certification Management Team oversees the safety program and is the executive focal point for all flight program safety related issues. Operational control of the Flight Test SMS is delegated to the AIR Flight Program Manager (FPM).

b. Safety Accountability: Safety responsibility, accountability and authority are documented in Section 200 of this manual and include a definition of the levels of management with authority to make decisions regarding safety risk.

c. Appointment of Key Personnel

NOTE:

The structure of AIR Flight Test Organizations is variable. Some Directorates are co-located with ACO(s), in which case there may be one facility flight safety officer (FFSO) for the entire Directorate. Other Directorates have several remote ACOs, and each ACO will have its own FFSO.

(1) **Service Level**. Per FAA Order 4040.9, the AIR flight program organization must establish a safety committee and assign a flight program flight safety officer (FPFSO).

(a) The AIR Flight Program Oversight Committee (FPOC) fulfills the role of the safety committee required by Order 4040.9. The primary responsibility of the

safety committee is to set safety goals and review safety-related recommendations. The FPOC reviews the AIR plans, policies, procedures, conditions, instructions for recent flight experience, and the responsiveness to corrective recommendations.

(b) The Flight Program Flight Safety Officer (FPFSO) represents the highest level of flight safety management within AIR. The Director of the Aircraft Certification Service, AIR-1 (or his/her designee), will appoint an FPFSO to manage the AIR Flight Safety Program. The AIR FPFSO will be a member of the FAA National Safety Council (NSC). This person must be a Flight Program participant and hold, as a minimum, an FAA commercial airman certificate. The FPFSO:

1. Provides proactive leadership regarding safety matters while performing as a liaison between the FAA's Senior Flight Safety Officer (SFSO), respective organizational managers and the individual Facility Flight Safety Officers (FFSOs).
2. Manages an organizational Flight Safety Program that meets the policy, standards, and guidelines of the national program.
3. Identifies safety concerns and findings to appropriate senior operations managers for appropriate corrective action.
4. Participates in the development and/or review of internal and external operational audit procedures.
5. Coordinates aircraft accident/incident safety investigations within AIR.
6. Analyzes accidents, incidents and Safety Significant Events (SSE) for trends.
7. Disseminates flight test incident and accident information to the AIR flight test community.
8. Attends required training in flight safety program management, including:
   - FAA Flight Safety Officer Initial and Recurrent Training;
   - Annual Flight Test Safety Workshops conducted by the Flight Test Safety Committee of the Society of Experimental Test Pilots.
9. Attends the following recommended training, if resources permit:
   - FAA Basic Aircraft Accident Investigation Course;
   - Human Factors in Aircraft Accident Investigation;
   - Other government or industry sponsored safety forums.
10. Act as the focal point within AIR for Crew Resource Management (CRM).
11. Schedules and conducts the annual AIR FFSO conference.
12. Participates in NSC meetings, and relevant aviation industry flight safety events within the available resources.
13. Represents the Flight Safety organization on the FPOC.
14. Identifies and recommends hazard controls based on risk analysis and safety trends.
15. Maintains the AIR Flight Safety Program records in accordance with FAA Order 4040.9.

(2) **Directorate/ACO Level.** AIR Directorate/ACO Managers:

(a) Will assign a Directorate/ACO Facility FSO (FFSO) through a memorandum to the assignee, stating:

1. The FFSO reports directly to the Directorate/ACO Manager on matters relating to aviation safety and risk management.
2. Safety and risk management are the FFSO's primary or collateral duty, as appropriate, and,
3. The FFSO has an open line of communication with the manager.

(b) Should ensure, for those ACO's that do not have flight test personnel, the ACO that conducts their flight tests provides the FFSO functions for all in-house, and all delegated flight test safety review requirements.

(3) **Facility Level.** The FFSOs manage and represent the Flight Safety Program at the facility level and provide all necessary safety information to the responsible directorate/ACO management, the FPFSO and SFSO. They provide proactive leadership regarding safety matters while acting as a liaison between the FPFSO, respective organizational managers, and flight participants. They must be flight program participants. The FFSOs will ensure compliance with the policy, standards, and guidelines of organizational and national programs. The FFSO:

(a) Provides input for flight safety program management and attends required training including:

1. FAA Flight Safety Officer Initial training course before assignment. If course attendance before assignment is not practical, the course must be attended within 1 year following assignment. Recurrent training must be attended every 2 years to maintain assignment as an FSO. This requirement and select equivalencies are detailed in Chapter 4 of this Manual.
2. Annual FSO meeting.

NOTE:
The FPM and the FPFSO may approve individual exceptions or waivers to the above requirements on a case-by-case basis.

(b) Attends the following recommended training, if resources permit:

1. FAA Basic Aircraft Accident Investigation Course;
2. Human Factors in Aircraft Accident Investigation;
3. Annual Flight Test Safety Workshop conducted by the Flight Test Safety Committee of the Society of Experimental Test Pilots.
4. Other government or industry sponsored safety forums

(c) Provides advice and assistance on safety matters to the Directorate/ACO Manager and Staff at all levels.

(d) Coordinates safety issues common to local operations. When necessary, elevate and coordinate with the FPFSO.

(e) Identifies and recommends local hazard controls based on risk analysis and safety trends.

(f) Promotes the use of standard operating procedures that enhance safety.

(g) Conducts and documents a safety meeting at least once each quarter and maintain meeting records that include subjects, dates, presenters, and attendance. Safety meetings should address both the Order 4040.9 flight program and flight test project flying.

(h) Maintains copies of all reported internal SSEs, safety issues, and hazards and forward all SSEs to the FPFSO for appropriate dissemination.

(i) Identifies and analyzes trends in all reported accidents, incidents, SSEs, safety issues, and hazards.

(j) Initiates local accident prevention measures and/or track corrective actions, and retain a record of actions taken.

(k) Maintains Tab 3 of the accident response plan with appropriate contact information for use during aircraft accidents or incidents within the flight program.

(l) Maintains all local flight safety files and records.

(m) Conducts internal evaluations as directed.

(n) Assists in investigating accidents, incidents and SSEs as delegated by the FPFSO.

(o) Maintains local procedures for complying with this order.

(4) **Individual Level.** Flight program participants are those who are designated and authorized using FAA Form 4040-7, have a crew number in the Flight Activity & Crew Tracking System (FACTS), and are approved by Aircraft Certification Directorate Managers. The individual flight program participant:

(a) Emphasizes safety awareness.

(b) Complies with Airplane and Rotorcraft Flight Manuals (AFM & RFM), the AIR Flight Test Operations Manual, local safety requirements, standard operating procedures (SOPs), OPS Specs, FAA Orders, and other regulatory requirements.

(c) Reports all accidents, incidents or SSEs in accordance with this order as expeditiously as possible to the appropriate person, typically the local FFSO. However in their absence, safety issues can be sent directly to any FFSO within the Flight Program or directly to the FPFSO or SFSO if the issue is felt serious enough. Reports may also be made anonymously to the FAA SFSO using the Safety Hotline (800-321-0590). (866-230-3679).

(d) Attends quarterly safety meetings. If absent from the meeting, crewmembers must review the meeting minutes and/or do other tasks as directed by the FFSO to fulfill the safety meeting requirement.

d. Coordination of Emergency Response Planning: SMS requires that an emergency response plan that provides for the orderly and efficient transition from normal to emergency operations, and the return to normal operations, is properly coordinated

onse plans of those organizations it must interface with during the provision of its services.

Each operating organization within AIR will establish a detailed accident response plan reflecting pertinent steps to be taken by various office personnel in case of an aircraft accident. The provisions and requirements of FAA Order 4040.9 App. G, FAA Aircraft Accident/Incident Response Plan, and FAA Order 8020.11, Aircraft Accident and Incident Notification, Investigation, and Reporting, should be addressed in this plan. The accident response plan must be flexible enough to accommodate variations in the appropriate response. As an example, the variations should accommodate an accident that may occur as a result of flight activity within the scope of Order 4040.9, flight testing of an applicants aircraft in conjunction with a TIA, an LOA, or assistance to field inspectors on some other authority (e.g., memo, record of telecon, etc.). The plan must also account for variations in the organizational structure of the office or facility involved, and the resources available to those personnel tasked with implementing the response plan. In order to assure currency of contacts and procedures, a desktop exercise of the accident response plan must be exercised annually. The accident response plan is in Appendix 10 of this manual. Each facility must insert a completed Tab 3 "Important Telephone Numbers" sheet.

e. SMS Documentation: The AIR Flight Program has an SMS implementation plan, endorsed by AIR-1 and the FPE, that defines our organization's approach to comprehensive flight test safety management. The implementation plan meets our organization's safety objectives and maintains SMS documentation to describe the safety policy and objectives, the SMS requirements, the SMS processes and procedures, the accountability, responsibility and authorities for processes and procedures, and SMS outputs. The safety management system manual (SMSM), which communicates the approach to the management of safety throughout the organization is Chapter 5 of this Manual.

The FFSO is responsible for maintaining the Facility Flight Program's safety program records. Facility flight safety program records are defined as SSE reports (Safety Significant Event); accident/incident reports and response plans; memo assigning FFSO, safety meeting dates, content, and attendance; all IEP records for 3 years, and, if applicable, safety committee meeting notes, recommendations, and management responses.

f. Safety Objectives and SMS Performance Goals: The Aircraft Certification Service sets annual safety objectives through the FAA Flight Planning and Business Planning process that include objectives for the AIR Flight Program. These objectives have measurable safety performance targets, which when possible are quantitative in nature. These objectives are at a minimum reviewed each month by the AIR management team.

In addition to the above referenced objectives, the AIR Flight Program has the following additional objectives:

- AIR Flight Program management will ensure that all staff are provided with adequate and appropriate aviation safety information and training to make available for assignment, sufficiently skilled and trained crewmembers.

- The AIR SMS will strive to ensure risk in flight test is minimized to the maximum extent possible in the advancement of our flight test mission by compliance to FAA Order 4040.26.
- Ensure the Safety Significant Event (SSE) reporting system allows and encourages crewmembers to report safety related events without concern for reprisal.
- Aircraft Certification Service flight test personnel will work with industry and military counterparts to share lessons learned. We will accomplish this integration through involvement with professional organizations and as a natural consequence of our work with industry and the military.

503. Safety Risk Management

A comprehensive safety program has been established for the AIR Flight Program to promote a safety culture and ensure safe practices are observed and followed at all times by flight program participants. The AIR Flight Test Risk Management Program is implemented in accordance with FAA Order 4040.26 and includes hazard identification, risk assessment and mitigation processes.

In addition to FAA Order 4040.26, the AIR Flight Program has directly supported the development and maintenance of a cross organizational website known as the "Flight Test Safety Database." This site makes risk assessments and mitigating procedures available to all that are interested, internal and external to the FAA. Input can continuously be made to this website to allow up to date lessons learned and mitigating procedures to be incorporated.

The AIR Flight Program developed and actively uses a database for all Safety Significant Event (SSE) reports. This allows all FAA crewmembers to learn about and from the experiences of others.

a. Hazard Identification: Per FAA Order 8000.369, a hazard is defined as any existing or potential condition that can lead to injury, illness, or death to people; damage to or loss of a system, equipment, or property; or damage to the environment. A hazard is a condition that is a prerequisite to an accident or incident. Note that a hazard may or may not result in a situation of high risk. As described above, hazards are identified and documented per FAA Order 4040.26 and include:

(1) The test technique involved,

(2) The hazard(s) associated with these techniques,

(3) The cause of each hazard,

(4) The effect of each hazard,

(5) A subjective risk assessment,

(6) The steps for mitigation of causes for each hazard,

(7) Any Emergency Procedures to accomplish if the hazard occurs, despite mitigation steps,

(8) Acceptance of the risk management.

b. Safety Risk Assessment and Mitigation: Once a project's overall risk level is determined, delegation level of the Risk Management Approval Authority is dependant upon the pre-mitigated risk level. It is imperative for flight test teams to understand that mitigations do not reduce the risk level of the project. The mitigations are in place to maximize the probability of safe operations by reducing the probability of a cause or the severity of the effect of a hazard, or both. Therefore, risk mitigations have no affect on the delegation level of the RM approval authority. This authority is documented in FAA Order 4040.26.

504. Safety Assurance

The safety assurance process should at a minimum consist of rudimentary internal evaluation processes along with periodic external safety audits that assist the operator in verifying safety performance and rectifying any identified instances of sub-standard SMS performance. The safety assurance processes should include regular reviews of safety performance by senior management.

a. Safety Performance Monitoring and Measurement: The AIR Flight Program has developed a procedure to verify the safety performance of the organization and to validate the effectiveness of safety risks controls. The safety performance of the organization is verified in reference to the safety performance indicators and safety performance objectives of the SMS. The AIR Flight Program Internal Evaluation Program (IEP) fulfills this requirement. The IEP is documented in detail in Section 506 of this Manual.

b. The Management of Change: The Safety Risk Management Process, Section 503, must consider and respond to;

(1) New system designs,

(2) Changes to existing system designs,

(3) New operations/procedures, and

(4) Modified operations/procedures.

In addition, any changes/revisions to FAA Order 4040.9, FAA Order 4040.26 and the AIR Flight Test Operations Manual are reviewed, and concurred with by the FPOC prior to approval. This allows the AIR Flight Program to identify changes within the organization which may affect established processes and services; to describe the arrangements to ensure safety performance before implementing changes; and to eliminate or modify safety risk controls that are no longer needed or effective due to changes in the operational environment.

c. Continuous Improvement of the SMS: In addition to the IEP, the FAA Flight Program Oversight Office (AFS-41) conducts external audits of all FAA Flight Programs in accordance with the FAA Aircraft Management Program. These audits support the principles for Safety Management System (SMS) to assist all FAA Flight Programs in meeting the highest standards for safety in accordance with established FAA policy. Also, the AIR Flight Program is subject to QMS audits of our operations, procedures and documentation. The combination of the IEP, AFS-41 audit and QMS audit allows the AIR Flight Program to fully identify the causes of

sub-standard performance of the SMS, determine the implications of sub-standard performance of the SMS in operations, and eliminate or mitigate such causes.

505. Safety Promotion

a. Training and Education: Chapter 4 of this Manual prescribe the flight related training and standardization program for AIR flight-test personnel. The goals of the flight-test training and standardization program are to enhance safety and standardization of aircraft operations, and provide training relevant to the operations conducted allowing flight crewmembers to be competent to perform their SMS related duties.

b. Safety Communication: The AIR Flight Program maintains formal means for safety communication to ensure that all personnel are fully aware of the SMS; conveys safety critical information; and explains why particular safety actions are taken and why safety procedures are introduced or changed. This is done on three levels. First, the Flight Program Oversight Committee (FPOC) is established as an advisory group to provide expert advice on the AIR Flight Program to the AIR Director and Deputy Director, the AIR Flight Program Executive, the DMTs, and the various cross-organizational Management Teams ("MTs") within AIR. Second, annually the AIR Flight Program conducts a "Safety Stand-Down Day," the purpose of which is to communicate as a national organization current issues relating to safety and procedures. Finally, in accordance with FAA Order 4040.9, Chapter 6, Paragraph 7. c.; each AIR Flight Program facility conducts a quarterly safety meeting.

506. AIR Internal Evaluation Program. The AIR Flight Program Internal Evaluation Program (IEP) establishes objectives, policy and assignment of responsibility for the administration of the Internal Evaluation Program. This procedure provides management a means of:

- Measuring the effectiveness and efficiency of the AIR Flight Program's objectives
- Identifying and correcting systemic problems
- Ensuring compliance with Federal Government policy, DOT orders, FAA orders, regulatory standards, and directives relevant to the FAA Aircraft Management Program

An Internal Evaluation Program (IEP) is administered and scheduled at the flight program level by the FPFSO. Corrective action plans are required for non-compliance findings. IEP audits will be conducted on an annual basis, in accordance with FAA Order 4040.9 Chapter 7.

a. Overview:

(1) Who – The persons involved in the IEP are:

(a) The Facility Flight Safety Officers (FFSOs):

- are responsible for completion, within 30 days, of the Corrective Action Plans for each safety related finding. These must be submitted to the Facility Manager for verification.
- the FFSO, as a point of contact, is responsible for aiding the FPFSO in

ensuring the IEP is completed at their respective facility.

(b) Each facility must have a flight program coordinator (FPC). The facility Flight Program Coordinator (FPC):

- is responsible for completion, within 30 days, of the Corrective Action Plans for each Major and Minor finding other than those that are safety related. These must be submitted to the Facility Manager for verification.

(c) The Flight Program Flight Safety Officer (FPFSO):

- as defined in FAA Order 4040.9 the FPFSO will be the AIR IEP Coordinator and is responsible for ensuring the IEP is completed and for determining and disseminating the IEP schedule for each AIR flight office each fiscal year.
- The FPFSO also provides a report annually compiling the results of the facility IEP's and identifying any trends that need to be addressed on a national service level.

(d) The Facility Manager:

- Will either be the ACO Manager or in some cases the Directorate Manager.
- Must appoint a designated flight crewmember to conduct the annual IEP. This person may be the FPC or the FFSO.
- Reviews, for approval, the corrective actions recommended by the FPC and FFSO.
- Ensures completion of Corrective Action Plans within 30 days of the evaluation findings being reported to the FPC/FFSO and reported to the FPFSO
- Takes appropriate action to eliminate the cause of process non-conformities in order to prevent reoccurrence

(e) The Flight Program Manager (FPM):

- Is responsible for implementing the IEP in accordance with FAA Order 4040.9 and this manual.

(2) What – Internal Evaluation Program addresses responsibility, authority, procedures, controls, internal and external interfaces, and performance measures. This program incorporates the principles used within a Quality Management System to identify and measure key areas for continuous improvements. The focus of the IEP should be on the systems and processes.

(3) Where – Each facility with flight program participants.

(4) When – Annually

(5) Why – Required by FAA Order 4040.9; provides feedback of effectiveness of the flight program, following a system safety approach.

(6) How – AIR IEP Checklist, IEP Summary Report (Figure 5-3), IEP Detailed Finding Report (Figure 5-4, which includes Corrective Action Plans). Templates and when appropriate, Instructions on these forms can be found on the AIR Flight Program Sharepoint site, under "Safety."

b. Implementation

NOTE: The IEP schedule will be posted on the AIR Flight Program Sharepoint site under "Safety".

(1) 100% of AIR offices must be evaluated and reported each fiscal year in accordance with the requirements of Order 4040.9 and this document.

(2) The FFSO and the FPC are responsible for ensuring the Corrective Action Plans for each Major and Minor finding are completed and submitted to the Facility Manager for verification. After verification, the completed IEP forms should be submitted to the FPFSO who will forward the documents to the Flight Program Manager and the FAA Senior Flight Safety Officer. This submittal will satisfy the requirement in FAA Order 4040.9 for an IEP Evaluation Report.

(3) The assigned crewmember need read-only access to local FACTS to conduct IEP.

(4) FPFSOs need national Flight Program read-only access to FACTS to conduct IEP.

c. Procedures

Standardized AIR IEP Checklist and forms will be used to ensure that AIR facilities are following the documented processes and guidance (See Figure 5-1, Process Flowchart).

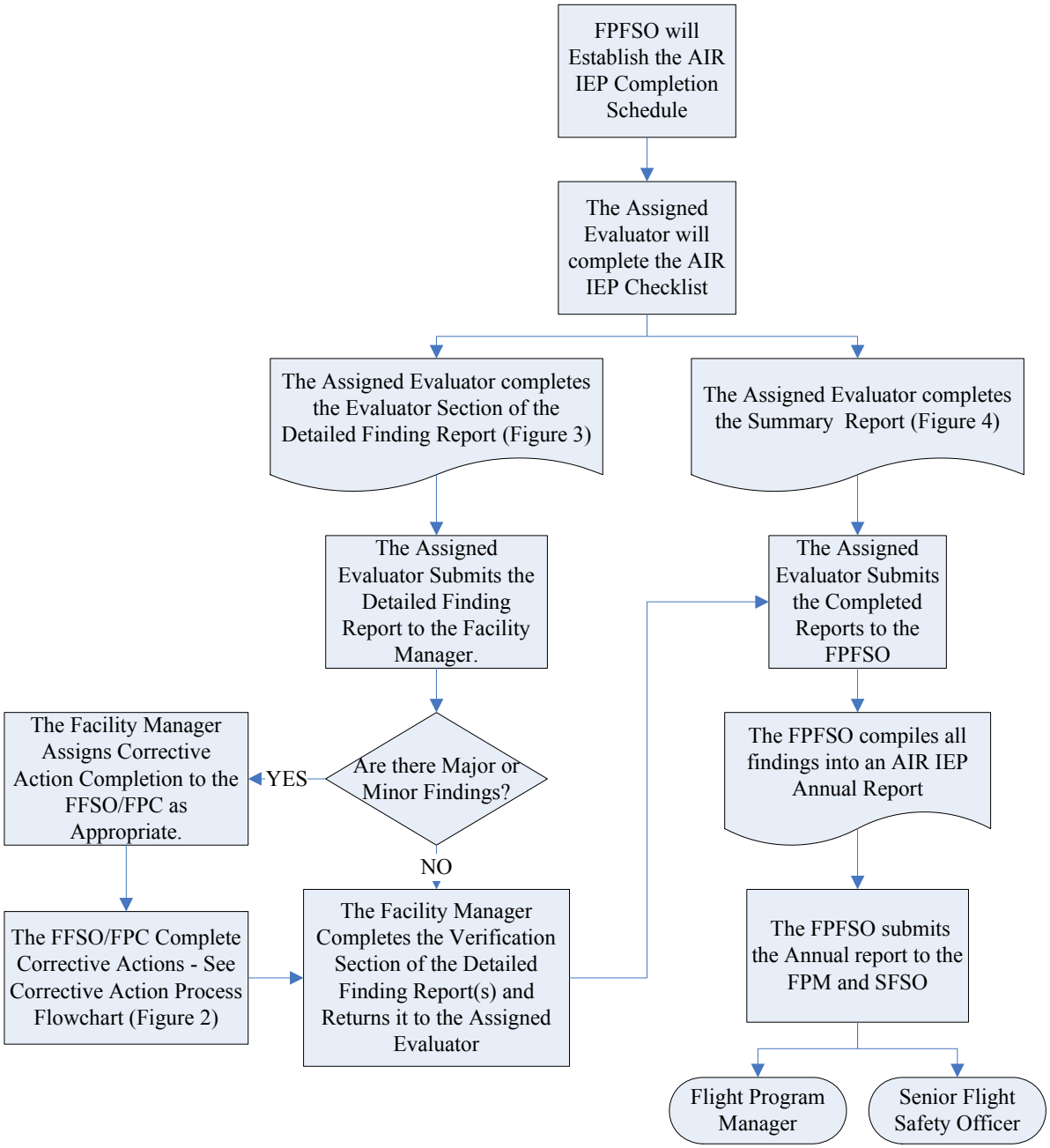


FIGURE 5-1 (IEP Process Flow Chart)

(1) FPFSOs will establish a schedule for each office to have completed their IEP, to include Corrective Action Plans and verification.

(2) The individual ACO's and Directorate or combined offices have the option to cross-utilize the assigned evaluator to conduct the IEP. The Corrective Action Plans remain the responsibility of the FFSO and FPC.

(3) The assigned evaluator will conduct a pre-evaluation briefing with the Facility Manager, the FFSO and FPC prior to commencing the IEP.

(4) The assigned evaluator completes an annual internal evaluation using the AIR IEP Checklist. This checklist is available at the "AIR Flight Program" sharepoint site.

Findings will be documented on the IEP Summary Report (Figure 5-3), and IEP Detailed Finding Report (Figure 5-4, which includes Corrective Action Plans).

NOTE: There are 4 categories of Findings:

- **Major** – one pertaining to a regulatory requirement or is critical for safety.

  NOTE: The Facility Manager must self disclose to the appropriate Flight Standards jurisdictional office any violation of Federal Aviation Regulations, and report the self-disclosure on the Detailed Finding Report Form.

- **Minor** – deviation from a policy or internal standard. Note: Each Major and Minor finding must have a root cause analysis and Corrective Action Plan.
- **Observation** – something we note, e.g., a finding that does not have a specific reference for it, but is causing a problem for the office
- **Best Practice** – something good we can share

(5) At the conclusion of the evaluation, the assigned evaluator briefs the Facility Manager, the FFSO, and FPC on Internal Evaluation outcomes with identifying data (crew numbers only) and prepares the necessary reports. Facility Manager or designee maintains original completed checklists.

NOTE: If a CAR is opened on an IEP finding, the IEP finding is considered closed, and the CAR QMS process is followed with regard to the CAR

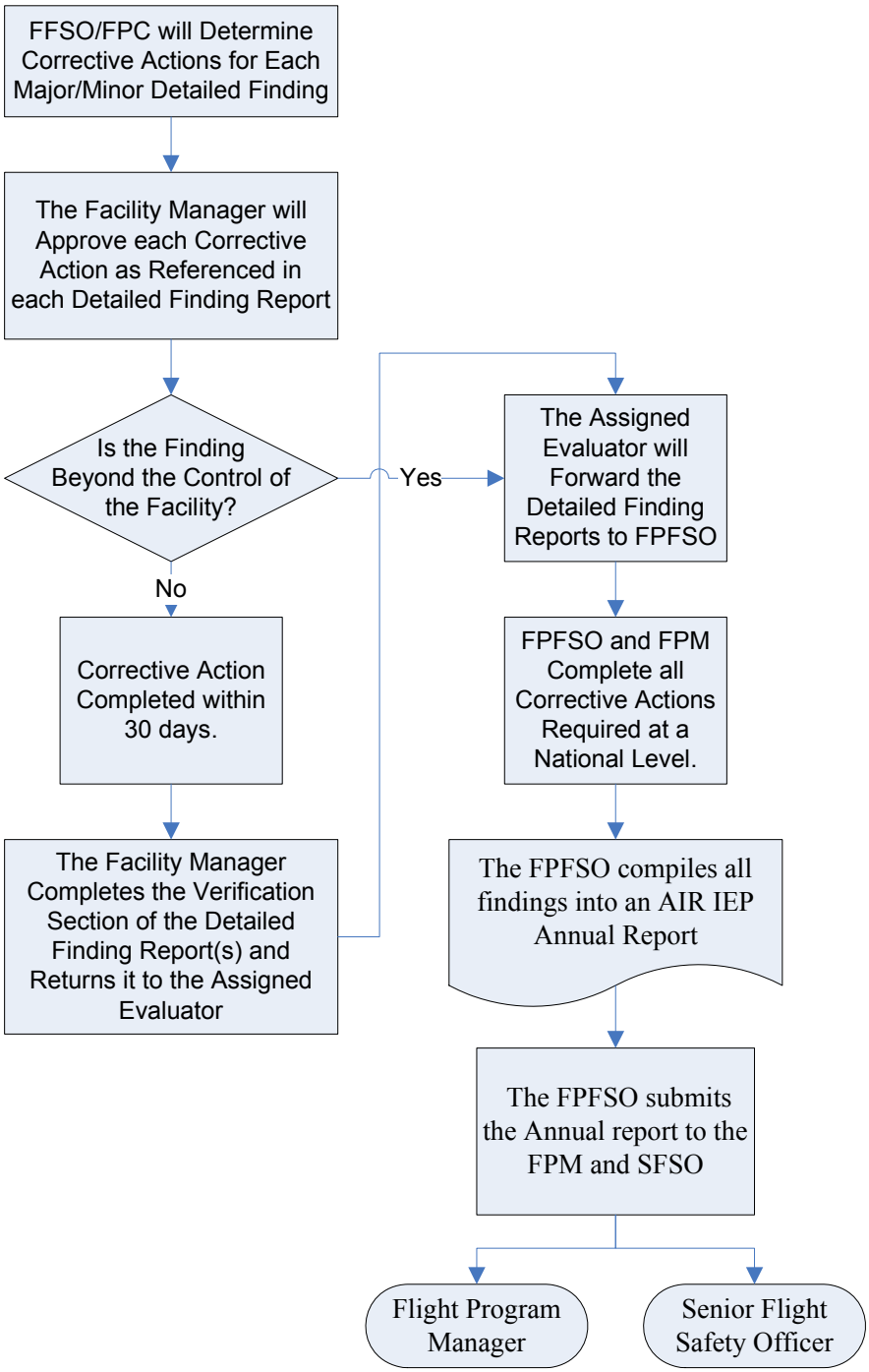


FIGURE 5-2 (CORRECTIVE ACTION PROCESS FLOWCHART)

(6) The FFSO and FPC complete the Detailed Finding Report Forms, including developing and implementing Corrective Action Plans for all Major and Minor findings. A re-evaluation will take place within 90 days after the implementation date. A Corrective Action Plan should address all deficiencies within the control of the Facility Manager prior to re-evaluation. If not, re-evaluations should continue at approximately 90 day intervals until all deficiencies have been corrected. Deficiencies beyond the control of the Facility Manager must be documented on the Detailed Finding Report Form

(corrective action section) and forwarded to the Flight Program Flight Safety Officer (FPFSO) with recommended action. The FPFSO will coordinate corrective action for all deficiencies beyond the control of the reporting facility with the FPM. Completion of appropriate corrective action will be communicated back to the reporting facility.

(7) The assigned evaluator transmits de-identified (without crew numbers) results to FPFSO using the IEP Summary Report Form, and reports the ratio of the findings to the total number of records sampled (e.g. 16 of 20). When necessary, upon completion of a re-evaluation, the evaluator will transmit the Summary Report Form to the FPFSO.

(8) FPFSO transmits the IEP Summary Report Forms to FPM and SFSO.

(9) FPFSO and SFSO analyze, identify deficiencies/best practices and monitor trends.

(10) FPFSO discusses results with the FPM.

(11) SFSO summarizes results by Flight Program and presents summarized results quarterly to Flight Program Policy Committee (FPPC).

(12) The Facility Manager or designee must retain all IEP records in accordance with, Records Management Requirements Manual, FAA Order IR 4.1 (currently 3 years).

d. Corrective Action Re-Evaluation

(1) The assigned evaluator completes a re-evaluation of the deficient areas within 90 days after the implementation date, using the approved IEP checklists. If unresolved or new deficiencies are found during the re-evaluation, they need to be noted on new Detailed Finding and Summary Report Forms.

(2) The Corrective Action Plan should have resolved all deficiencies within the control of the FFSO and the FPC prior to the re-evaluation. Deficiencies beyond the control of the FFSO and the FPC must have been documented on the Detailed Finding Report Form (corrective action section) and forwarded to the Flight Program Flight Safety Officer with recommended action. The Flight Program Flight Safety Officer should address the deficiency within 90 days of receipt.

(3) Upon completion of the re-evaluation, the assigned evaluator will transmit the Summary Report Form to FPFSO, should further findings need to be documented.

e. IEP Evaluation Schedule

(1) Will be determined by the FPFSO.

(2) The IEP will not be considered complete until verification of the corrective action is complete.

(3) Post schedule on the AIR sharepoint web site under the “Safety” section.

FAA INTERNAL EVALUATION PROGRAM

Summary Report

Evaluation Number:
Routing# - Year

Evaluation Date:

Facility Evaluated

Evaluator:

No. of Major Findings

No. of Minor Findings

No. of Observations

No. of Best Practices

Finding #	Category	Description	Ratio	Remarks
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Evaluator Comments:

FIGURE 5-3: IEP Summary Report

FAA INTERNAL EVALUATION PROGRAM

Detailed Finding Report #1

To Be Completed By Evaluator

1. Evaluation Number:
Routing# - Year – Finding #

2. Evaluation Date:

3. Facility Evaluated:

4. Evaluator:

5. CATEGORY

Major Finding ☐ (Legal/Safety)

Minor Finding ☐ (Deviation)

Observation ☐

Best Practice ☐

6. Finding Description:

7. Immediate notification to manager (if Major)

Date:

To Be Completed By FPC or FFSO

8. Corrective Action Assigned To:

9. Date Assigned:

10. Reply Date Due:

11. Reply Rec'd:

12. Implementation Date:

16. Immediate Action to Contain the Problem (if Major)

17 Underlying reason for the finding (Root Cause)

18. How will this be prevented in the future? (Corrective Action)

Effectiveness Of Corrective Action

13. Re-Evaluation Due:

15. CA Status: open / closed (circle one)

To Be Completed By Facility Manager

19. Verified By:

14. Verified Date:

FIGURE 5-4: IEP Detailed Finding Report

CHAPTER 6. REPORTING

CHAPTER 6. REPORTING

600. Reporting Requirements. The AIR flight program is required to report the following data to AFS-41 and to AIR-530.

601. AFS-41 Data Requirements. AFS-41 collects the following data from FACTS for reports required by FAIR (GSA), Department of Energy (DOE), and Department of Transportation (DOT).

602. AIR-530 Data Requirements. Each Directorate is required to track and report their rental expenditures monthly to AIR-530.

Report Required	Data Required	Reporting Period	Date Due	Note:
FAIRS (GSA)	Rental (All 4040-6)	Monthly	The previous month's 4040-6 must be entered in FACTS by the 14th of each month.	This data is archived to the Data Warehouse automatically on the 15th of each month.
FAIRS (GSA)	Corrections to Rental data recorded in FACTS	Quarterly	The 14th of the second month following the close of a quarter.	AFS-41 will send each flight program a rental audit report to review the 4th week following the close of a quarter.
DOE	Fuel report ➢ Jet fuel gallons used and total cost ➢ Av gas gallons used and total cost	Annually	October 15th	When this field is made mandatory in FACTS this report will be extracted from there.
Senior Federal Travel	Travel information when Senior Executives travel	Monthly	Due to AFS-41 by the 15th of each month.	AFS-41 enters this data monthly, checks the information for accuracy and rolls it up to DOT semi-annually.

APPENDIX 1. DEFINITIONS

Additional (Other) Crewmember. A person who is authorized to be on Rental Aircraft to perform a particular function, either in flight or on the ground, not directly involving the operation of the aircraft or its installed equip-ment, but as-sociated with the assigned mission or purpose of the flight.

Aircraft. (14 CFR part 1) A device that is used or intended to be used for flight in the air.

Airplane. (14 CFR part 1) An engine driven fixed-wing aircraft heavier than air that is supported in flight by the dynamic reaction of the air against its wing.

Alternate Airport. (14 CFR part 1) An airport at which an aircraft may land if a landing at the intended airport becomes inadvisable.

Category. (14 CFR part 1) (1) As used with respect to the certification, ratings, privileges, and limitations of airmen, means a broad classification of aircraft. Examples include: airplane, rotorcraft, glider, and lighter-than-air. (2) As used with respect to the certification of aircraft, means a grouping of aircraft based upon intended use or operating limitations. Examples include: transport, normal, utility, aerobatics, limited, restricted, and provisional.

Caution. As applied to manuals, an operating procedure, and technique must be carefully followed to prevent damage to equipment.

Civil Aircraft. (14 CFR part 1) Aircraft other than public aircraft.

Class. (14 CFR part 1) (1) As used with respect to the certification, ratings, privileges, and limitations of airmen, means a classification of aircraft within a category having similar operating characteristics. Examples include: single-engine, multi-engine, land, sea, gyroplane, helicopter, airship, and free balloon. (2) As used with respect to the certification of aircraft, means a broad grouping of aircraft having similar characteristics or propulsion, flight, or landing. Examples include: airplane, rotorcraft, glider, balloon, landplane, and seaplane.

Crew Flight Time. This time is entered on an FAA Form 4040-6 and will be credited as follows to ensure compliance with the currency requirements of chapter 4:

a. Pilot-in-command (PIC) time will be credited and logged in accordance with 14 CFR part 61 and chapter 2 of this manual.

b. Second-in-command (SIC) time will be credited and logged in accordance with 14 CFR part 61 and chapter 2 of this manual.

c. Pilot time will be credited for the time a pilot is at the flight controls, regardless of his or her qualifications or the control position, when he or she is actually exercising the principal active control of the aircraft's flight controls. For any flight, the total pilot time credited to all pilots must equal the flight time for the flight.

d. Instructor pilot (IP) time will be credited only to pilots designated as FAA instructor pilots, FAA check pilots, or authorized/approved industry pilots for each time they are acting in this capacity. The total IP time credited to all pilots shall not exceed the flight time for the flight. Time credited to IP should also be included in PIC time in accordance with 14 CFR part 61.

e. Flight engineer (FE) time will be credited for flight time during which an individual is functioning as a flight engineer or is actually conducting either instructional or check flights as a designated FAA instructor/check flight engineer.

f. Other flight (Other) time will be used for flight maintenance technicians, electronic technicians, extra pilots, flight engineers, flight navigators, and flight test engineers, for the time actually spent aboard the aircraft in a crewmember status.

Crewmember. AIR crewmembers are Flight Test Pilots (FTPs), Flight Test Engineers (FTEs) and Human Factors Specialist.

DOT Senior Level Officials. For the purpose of this order, DOT senior level officials refer to the Secretary of Transportation, the Commandant of the U.S. Coast Guard, the FAA Administrator, as well as the Deputy Secretary of Transportation, the U. S. Coast Guard Vice Commandant, and the FAA Deputy Administrator when these officials are representing their principals.

Exclusive Use. Aircraft leased or rented by the FAA and used only by the FAA for a specified period greater than 90 days.

Extended Over Water Operation. (14 CFR part 1) An operation overwater at a horizontal distance of more than 50 nautical miles from the nearest shoreline.

FAA Aircraft. Aircraft used exclusively in the service of the FAA and includes aircraft owned, rented, leased, chartered, loaned, under bailment, or otherwise in possession of the FAA for the purpose of flight, ground test, or formal training use. The term also includes aircraft and simulators used under FAA/other Government or FAA/civil organization agreement.

FAA Pilot. A person employed by or assigned to the FAA who is authorized and qualified as prescribed herein to fly aircraft.

FAA Senior Flight Safety Officer – the person responsible for administering the safety management system on behalf of AVS-1.

FACTS – Flight Activity and Crew Tracking System**.**

Facility Flight Safety Officer (FFSO) - the person responsible for administering the flight safety program at the facility level (e.g., ACO).

Facility SMS Records - Safety issue reports; SSE reports; accident/incident reports and response plans; memo assigning FSO; organization's SMS objectives and manager's

expectations; safety meeting dates, content, and attendance; and, if applicable, safety committee meeting notes, recommendations, and management responses.

Ferry Flight. A ferry flight is a flight of a Rental Aircraft made for (1) initial operational assignment or operational reassignment between FAA organizational elements; or (2) moving an aircraft for maintenance or modification, or returning the aircraft to its assigned operational location after maintenance or modifications; or (3) moving an aircraft, maintenance personnel, and/or equipment to return an aircraft to service, or for emergency.

Flight Crewmember. A person who is authorized to be on Rental Aircraft directly involved in the operation of the aircraft in flight as pilot with PIC authority or pilot with SIC authority, or flight engineer.

Flight Operations Activity. An element of the FAA's organizational structure whose primary program responsibilities require significant use of Rental Aircraft and which has personnel whose primary function is piloting aircraft.

Flight Plan. (14 CFR part 1) Specified information related to the intended flight of an aircraft that is filed orally or in writing with air traffic control.

Flight Program Crewmember – Any person authorized by an FAA Form 4040-7, or equivalent form, to act as a crewmember in an FAA aircraft/simulator, or job task aircraft/simulator to accomplish a job function.

Flight Program Flight Safety Officer (FPFSO) - the person responsible for administering the flight safety program at the national level in each of the six flight programs, e.g., AVN-200, AVN-600, AIR, FAA Academy (AMA), ACT, and AFS.

Flight Program Organizations - Any office, staff, service, directorate, center, division, branch, or field office operating FAA aircraft, and/or having FAA Flight Program crewmembers.

Flight Program Participant – Crewmembers and other persons who have responsibilities relating to the FAA Flight Program; e.g., managers, supervisors, data entry personnel, flight program coordinators, engineers, maintenance personnel, program analysts, record keepers, IEP managers, etc.

Flight Time. This time (block-to-block) begins when the aircraft first moves under its own power for the purpose of flight and ends when it comes to rest at the next point of landing. Block-to-block time includes, and is usually greater than, time-in-service. This time will be accurately recorded on the FAA Form 4040-6 by the PIC or a designated flight crewmember.

Internal Evaluation Program (IEP) – Self audit within individual Flight Programs.

Job Task Aircraft – Aircraft not under FAA control that an applicant presents for a job function conducted by an FAA operations inspector, flight test pilot, flight test engineer, AEG pilots, etc.; e.g., certification, evaluation, testing, or checking of airmen or equipment.

Large Aircraft. (14 CFR part 1) An aircraft of more than 12,500 pounds maximum certificated takeoff weight.

Mission Aircraft. Aircraft whose current approved configuration and primary mission tasking are in operational support of one or more specific FAA missions. Mission aircraft may have the capability for carrying passengers and cargo but are not primarily tasked to carry out administra-tive support of FAA missions. Mission aircraft may include, but are not limited to, aircraft used for evalua-tion, proficiency, formal training, research and development, flight inspections, etc.

Mission Requirements. Those activities, other than transporting passengers and/or cargo, which must be accomplished in order to carry out the FAA's statutory responsibilities.

National Flight Program Manager (NFPM) - The manager responsible for each of the six Flight Programs.

National Safety Council (NSC) - recommends safety policy for the FAA Flight Programs to the FAA Flight Program Oversight Executive through the Flight Program Policy Committee (FPPC). The council is comprised of the six Flight Program Flight Safety Officers, chaired by the FAA Senior Flight Safety Officer, and meets as required.

Nonofficial Travelers/Nonofficial Passengers. Includes all persons for whom the FAA is not authorized to pay or reimburse transportation or other travel expenses for a particular trip. In most cases, this would include spouses, dependents, and other non-Government travelers.

Operating Organization. A FAA organization which has allocated resources that provide for the authorization of flight hours to conduct any of the official FAA flight programs. These organizations are identified as centers, services, all levels in the Washington headquarters, and the Office of Aviation System Standards.

Passengers. Includes all persons transported on a Rental Aircraft except for the crew of the aircraft and any persons whose presence on the aircraft is essential or directly related to the official mission of the flight.

Pilot-in-Command (PIC). (14 CFR part 1) The pilot responsible for the operation and safety of an aircraft during flight time.

Public Aircraft. The status of an aircraft when it is being used only in the service of the Government for inherently governmental purposes such as fire fighting, search and rescue, law enforcement, aeronautical research, etc. Except in limited circumstances (mostly related to above activities), it does not include any Government-owned aircraft engaged in transporting passengers. (See Advisory Circular 00-1.1 and P.L. 103-411).
Rating. (14 CFR part 1) A statement that, as part of a certificate, sets forth special conditions, privileges, or limitations.

Rental Aircraft. FAA-operated civil aircraft obtained through open-market or contract agreements and used within the FAA rental program.

Rental Time. This time begins and ends according to the terms of the contract or is based on a recording tachometer. Whenever crew recorded times are stipulated, they will be accurately recorded to ensure an equitable payment obligation. Time recorded on the Agency Open-Market Rental Aircraft Summary Report (RIS: FS 4040-11) is time-in-service.

Safety Hotline - The safety hotline, 1-800-321-0590, is for the exclusive use of FAA Flight Program participants. The hotline is located at the office of the FAA SFSO and only safety program staff will answer calls.

Safety Issues – ideas, concerns or potential hazards that could impact the safety of flight operations.

Safety Management System (SMS) - a form of quality assurance based on periodic internal audits and clear individual accountability for safety outcomes. A safety management system documents all standards, practices and procedures to promote and maintain safety, and the responsibilities of staff for implementing these standards, practices and procedures.

Safety Significant Event (SSE) - any flight or ground event, including accidents and incidents as defined in 49 CFR part 830, that affects or could affect the safety of an aircraft or crewmember.

Second-in-Command (SIC). (14 CFR part 1) A pilot who is designated to be second-in-command of an aircraft during flight time.

Simulator. A device used for training purposes that simulates any or all of the conditions of actual flight.

Small Aircraft. (14 CFR part 1) An aircraft of 12,500 pounds or less maximum certificated takeoff weight.

Subject Pilot. FAA or non-FAA personnel who are required and approved as flight crewmembers for specific research project flights.

Technical Crewmember. A person who is authorized to be on FAA air-craft to perform a duty in flight, not directly involving the operation of the aircraft, but involving the operation of the installed equipment used to accomplish the mission of the aircraft.

Test Flight. A flight for the purpose of verifying the airworthiness of an aircraft and installed equipment necessary for safe flights.

Time-in-Service. This time begins when the aircraft leaves the surface of the earth and ends when it touches the earth at the next point of landing. In the event of several full-stop landings, time-in-service will not include ground taxi time between the initial takeoff and final landing.

Whenever an oleo-actuated elapsed time meter is installed in the aircraft, time recorded thereon will be used in lieu of crew-recorded times.

Type. (14 CFR 1) As used with respect to the certification, ratings, privil-eges, and limitations of airmen, means a specific make and basic model of aircraft, including modifications thereto that do not change its handling or flight characteristics. ("Small" aircraft such as BE-55, Cessna 172, Mooney Mark 21, etc., are different type aircraft.)

Warning. As applied to manuals, means operating procedures, techniques, etc., which must be carefully followed to prevent personal injury or loss of life.

APPENDIX 2 FAA FLIGHT TEST – BRIEFING GUIDE

(For FAA Rental Aircraft, refer to Appendix 3)

PRE-FLIGHT

- Flight no./test no.
- Purpose of test
- TIA/LOA signed/revision level
- Test aircraft configuration
- Ballast configuration/security
- Inoperative systems versus MEL and/or data requirements
- Conformity inspection (Recency of the inspection)
- Airworthiness certificate
- Changes since last flight
- Gross weights: takeoff GW/desired GW
- Center of gravity: takeoff CG/desired CG
- Fuel on board
- Aircraft performance versus takeoff conditions
- Airfield environment (runway conditions and obstructions)
- Takeoff time/crew show time/chase check-in time
- Communications: primary/secondary/emergency
- Ground station personnel/responsibilities
- Test area: location/altitude(s)
- Weather
- Fuel reserve requirements
- Recovery and landing
- Expected landing time
- Primary/alternate/emergency landing sites

TEST PROCEDURES

- Flight test plan reviewed
- Applicant's flight test report reviewed
- Detailed review of flight cards
- Buildup to end conditions
- Test predictions
- Procedures for monitoring test
- Instrumentation status
- AFM limitations
- Test limitations

FAA FLIGHT TEST BRIEFING GUIDE (CONTINUED)

(For FAA Rental Aircraft, refer to Appendix 3)

FLIGHT TEST PERSONNEL

- Pilot/PIC/copilot
- Flight test engineer (s)
- Observer (s)
- Seat assignments/inflight changes
- Crew status/rest
- Personnel safety equipment (helmets, parachutes, etc.)

SUPPORT / CHASE AIRCRAFT

- Type
- Call sign
- Registration number
- Crew
- Duties/procedures

CONTINGENCIES

- Lost sight/lost comms
- Emergency procedures (primary/secondary)
- Aircraft recovery devices procedures (spin chutes)
- Crew egress features/procedures
- Emergency/survival equipment procedures
- Chase/crash rescue procedures

POST-FLIGHT

- Aircraft discrepancies
- Post flight inspection results
- Landing time
- Discussion of test points
- Chase observations
- Data analysis observations
- FAR compliance
- Discussion of test points which approached / exceeded test limits
- Reports required

APPENDIX 3 FAA RENTAL AIRCRAFT – FLIGHT BRIEFING GUIDE

Rental Aircraft - Flight Briefing Guide

(For Flight Test Aircraft, refer to Appendix 2)

Admin

1. Form 4040-6.
2. Flight equipment.
3. AFM, registration, airworthiness certificate.
4. Aircraft Discrepancies
5. Gross weight and cg.

Communications

1. Frequencies
2. Radio procedures and discipline.
3. Navigational aids.
4. Aircraft callsign.

Weather

1. Local area.
2. Destination forecast.
3. Weather at alternate.

Navigational and Flight Planning

1. Climb-out.
2. Mission planning, including fuel management.
3. Approach.
4. Recovery.

Emergencies

1. Aborts.
2. Divert fields.
3. Minimum and emergency fuel.
4. Go-around.
5. Radio Failure
6. Lookout doctrine.
7. Aircraft emergencies.
8. System failures
9. Emergency landing.
10. Emergency egress.

APPENDIX 4. FLIGHT PROGRAM OVERSIGHT COMMITTEE (FPOC) CHARTER

U.S. Department of Transportation
Federal Aviation Administration

Memorandum

Subject: **INFORMATION: Flight Program Oversight Committee Charter**

Date: **FEB 13, 2004**

From: **Manager, Rotorcraft Directorate, Aircraft Certification Service, ASW-100**

Reply to Attn. of:

To: **All Aircraft Certification Directorate Managers**
All Aircraft Certification Division Managers

TEAM SPONSORS: ACMT

BACKGROUND: FAA organizations with pilot participants are required by FAA Order 4040.9 to administer their own pilot proficiency and flight safety programs, or to be included under the cognizance of another recognized program. The decision by the Aircraft Certification Service (AIR) to form a flight program that is independent from the Flight Standards Service brings an attendant requirement. to oversee that program.

OBJECTIVE: The Flight Program Oversight Committee (FPOC) is established as an advisory group to provide expert advice on the Service flight program to the AIR Director and Deputy Director, the AIR Senior Flight Program Manager, the DMTs, and the various cross-organizational Management Teams {"MTs") within AIR.

MEMBERSHIP:

FPOC membership includes the following representatives: the flight test branch managers of the Atlanta ACO, Los Angeles ACO, Seattle ACO, and Wichita ACO; a manager or senior flight test pilot from the Rotorcraft Directorate, Small Airplane Directorate, Engine and Propeller Directorate, and the AIR Lead Flight Safety Officer. The AIR Senior Flight Program Manager will appoint the FPOC chairman from the membership to a three-year term.

TEAM TASKS:

1. The FPOC will review the AIR plans, policies, procedures, conditions, instructions for recent flight experience, and the responsiveness to corrective recommendations. The FPOC will charter the Flight Safety Committee (FSC) required by Order 4040.9D, paragraph 503.b,(4) and will be led by the Lead Flight Safety Officer. The primary purpose of the FSC is to set safety goals and review safety-related recommendations.

2. Recommend appropriate changes to the AIR Operations Manual to FAA Order 4040.9, which delineates those aspects of the AIR flight program that are unique to AIR.

3. Provide prioritized FPOC recommendations to AIR-500 during annual call for flight training needs. Provide advice to local management regarding pilot proficiency training. Coordinate pilot proficiency training requirements from a national perspective.

4. Advise Technical Training Steering Committee (TTSC) regarding adequacy of flight training courses.

5. Oversee national test pilot hiring register and qualification requirements for FAA test pilots.

6. Provide coordinated FPOC input to the annual flight rental budget.

7. Provide national policy on pilot qualifications, pilot development, and shared pilot resources.

8. Coordinate with the Flight Test Technical Committee regarding expert oversight of the initial and recurrent FAA flight test pilot/flight test engineer courses.

9. FPOC members will be the focal points for Flight Program matters within their respective regions/Directorates.

PRODUCTS:

1. Flight Safety.

2. Oversight of AIR flight program.

3. Recommend revisions to various documents as necessary. TIMING:

The FPOC is a standing committee within AIR. Products will be developed to meet flight safety and overall program needs.

CONSTRAINTS:

The present organizational structure of the Aircraft Certification Service requires that flight program issues be administered via the various Directorate/Division Management Teams and the cross-organizational Management Teams such as the ACOMT, DMT, and ACMT. As a result, the FPOC is an advisory group, albeit one with most of the AIR flight test resources in a direct reporting status. Unless otherwise directed, the FPOC will provide recommendations and products to all DMTs and other applicable MTs.

PROCESS:

The FPOC will hold one annual meeting, normally during the first or second quarter of the fiscal year. Telecons will be scheduled as needed.

FUNDING:

Travel and per diem expenses for FPOC members will be shown in the AIR Business Plan as Management Team Meeting for budgeting.

CHARTER APPROVED BY: Da Downey
David A. Downey, ASW-100,
AIR Senior Flight Program Manager

DATE: 2/13/04

APPENDIX 5. LETTERS OF AUTHORIZATION (LOA)

General. All flights by Aircraft Certification Service personnel will be authorized through either a Form 4040-6 for the rental program, official training, a Type Inspection Authorization (TIA), or a Letter of Authorization (LOA). The LOA will be prepared as a memo signed by the responsible manager but signed no lower than the level of authority commensurate with the level of risk following Order 4040.26. At a minimum, it must be signed at the supervisory level above the person(s) named on the LOA. The Flight Program Oversight Executive may sign the LOA for executive level personnel. Examples of flights where an LOA may be used are flight tests in support of field approvals, foreign type validations, proof of concept flights, avionics systems demonstrations, or early FAA participation in developmental flight tests. The dual purpose of the LOA is to ensure that risks have been appropriately addressed and to provide an authorization basis for the flight activity of Aircraft Certification personnel performing in an official capacity when there is no other authorizing document.

Extended LOAs. In some cases an LOA may be issued for flights over an extended period of time for certain purposes. These may include demonstration flights to review developmental testing with a company or production surveillance flights. Extended LOAs for production surveillance flights with a company holding a production certificate is particularly appropriate. A sample of an extended LOA is included in the examples.

Risk Assessment. Most flights flown under an LOA are expected to be low risk; however, this is not always the case. If the risk is assessed as "Low", the wording proposed in the sample LOAs is acceptable. If the risk is assessed as medium or high, a Safety Review Board will be convened. A Risk Assessment in accordance with Order 4040.26 may be included as a separate paragraph in the LOA or as an attachment to the LOA.

Elements of the LOA. The LOA will contain information regarding the purpose of the flight, the dates of the flight(s) and an assessment of the risks of the particular flight or series of flights. The LOA must contain the following information:

- Name(s) of the personnel to whom the LOA is issued
- Date(s) of the proposed flights
- Location of the proposed flights
- Purpose of the flights
- Official documentation for the flights (if validation activity is planned). This would be reference to the foreign authority's flight test plan, flight test authorization, etc.
- Certificate of Airworthiness information
- Details of experimental installations (if any)
- Detail on who will be Pilot in Command (PIC) and where he/she will be seated
- An assessment of the level of risk and any required mitigation

Sample LOAs.

Sample LOAs for Domestic Demonstration flights, Foreign Validation flights and flights at AirVenture (Oshkosh) are contained on the following pages. The samples are not prescriptive. Specific LOAs may be changed to add Aircraft Certification Office specific information.

Sample LOA for Domestic Demonstration Flights.

Federal Aviation Administration

Memorandum

Date:

To: AIR Pilot/Engineer name(s)

From: Manager, XXX Aircraft Certification Office

Subject: Letter of Authorization for Demonstration Flight

You are authorized to participate on a demonstration flight on the XXX aircraft on or about _____. The purpose for this flight is to evaluate the capability of the XXX Flight Management System to interface with existing avionics systems and to identify potential TSO certification issues.

The evaluation will be conducted in accordance with XXX Flight Test Plan document number _____, Revision _____, dated _____. The evaluation will include two flights as specified in the test plan. The aircraft is owned and operated by _____.

The aircraft is under an Experimental R and D Certificate of Airworthiness, Market Survey, issued by ANE MIDO-XX on _____. The XXX FMS is installed under a limited field approval and is the only component installed that does not meet the type design. This will not be the first flight on this aircraft with this system installed. For the purpose of the evaluation, the company pilot will be Pilot In Command (PIC) and will be seated in the right seat and the FAA pilot in the left seat.

This flight is considered Low Risk. The provisions of Table 1, Index A of Order 4040.26A, attached, will be observed on this flight.

A preflight meeting will be held to review the flight, including the maneuvers that will be flown and/or demonstrated and safety precautions that will be followed.

John J. Doe
Manager, Appropriate Level

Sample LOA for Foreign Validation Flights.

Federal Aviation Administration

Memorandum

Date:

To: AIR Pilot/Engineer name(s)

From: Manager, XXX Aircraft Certification Office

Subject: Letter of Authorization for Validation Flights

You are authorized to participate on validation flight(s) on the XXX aircraft on or about _____. The purpose for this flight is to evaluate and validate the capability of the XXX aircraft to meet FAA certification requirements or to identify potential FAA certification issues.

The validation will be conducted in accordance with XXX Flight Test Plan document number _____, Revision _____, dated _____. The evaluation will include flights as specified in the test plan. The aircraft is owned and operated by _____.

The aircraft is under a(n) _____[1] Certificate of Airworthiness, (or equivalent), issued by the Civil Aviation Authority of _____.

The Safety guidance in FAA Order 4040.26, will be observed on this flight. A Risk Assessment in accordance with the guidance in Order 4040.26 is attached. (Note: If it is determined that this flight or series of flights is "Low" risk, a simple statement to that effect in the LOA is acceptable.)

A review of the Foreign Civil Aviation Authority's test procedures and test results will be completed prior to participating in the flight(s). A preflight meeting will be held to review the flight, including the maneuvers that will be flown and/or demonstrated and safety precautions that will be followed.

John J. Doe
Manager, Appropriate Level

[1] Note: In the case of a foreign civil airworthiness authority, the Certificate of Airworthiness may be something other than "Experimental".

Sample Extended LOA for Production Surveillance

Federal Aviation Administration

Memorandum

Date: Include a date range (suggest re-issuance each CY)

To: AIR Pilot/Engineer name(s)

From: Manager, XXX Aircraft Certification Office

Subject: Letter of Authorization for Production Surveillance Flights

The _____ Company is a major 14 CFR Part 25 airplane manufacturer manufacturing aircraft under an approved Production Certificate. As a function of the oversight responsibilities of the FAA, Aircraft Certification Service flight test pilots and flight test engineers are required to occasionally fly with the _____ Company to oversee production flight testing.

You are authorized to participate in production surveillance flight testing of _____ Company aircraft on a recurring basis. FAA flight test pilots may be in either seat during these flights. Flight test engineers may observe from the cockpit but are not authorized to occupy a pilot position. Flights will be conducted under a Special Flight Permit.

Note: A statement with regard to risk is required. Although these flights are generally considered to be low risk, guidance outlined in FAA Order 4040.26 will be followed. For any medium or high risk tests flown under a Letter of Authorization, a Safety Review Board will be convened and specific Test hazard Analyses will be developed with risk mitigation procedures identified. A written and signed Risk Assessment will be maintained in accordance with FAA Order 4040.26 and may be a separate document covering all production flights with a given company. A statement that a company's accepted risk management process will be followed is acceptable.

A preflight meeting will be held to review the flight, including the maneuvers that will be flown and/or demonstrated and safety precautions that will be followed.

John J. Doe
Manager, Appropriate Level

Sample LOA for AirVenture Flights.

Federal Aviation Administration

Memorandum

Date:

To: AIR Pilot/Engineer name(s)

From: Rotorcraft Directorate Manager
Flight Program Executive

Subject: Letter of Authorization for Flights at Oshkosh, EAA AirVenture

You are authorized to participate on demonstrations flights on aircraft at the Experimental Aircraft Association (EAA) AirVenture at Oshkosh on or about _____. The purpose for these flights is to witness new and emerging concepts and technology being shown at AirVenture.

Please review the Certificate of Airworthiness (CofA) for the aircraft. If the aircraft is operated under an Experimental CofA, please review it for purpose, completeness and currency and establish the details of the Experimental CofA.

For the purpose of these flights, the company pilot will be Pilot In Command (PIC). The PIC may be seated in either of the pilot seats. The FAA pilot/engineer may occupy a pilot seat or may observe from another vantage point. Piloting duties and expectations will be established prior to flight.

All flights will be low risk and will be flown within the established flight envelope for the particular airplane. (Note: FAA Order 4040.26 will be consulted to establish the level of risk. If the risk is medium, a risk assessment in accordance with Order 4040.26 will be attached.)

All flights will be coordinated with the EAA Director of Flight Operations, who can be contacted at (920-426-4886).

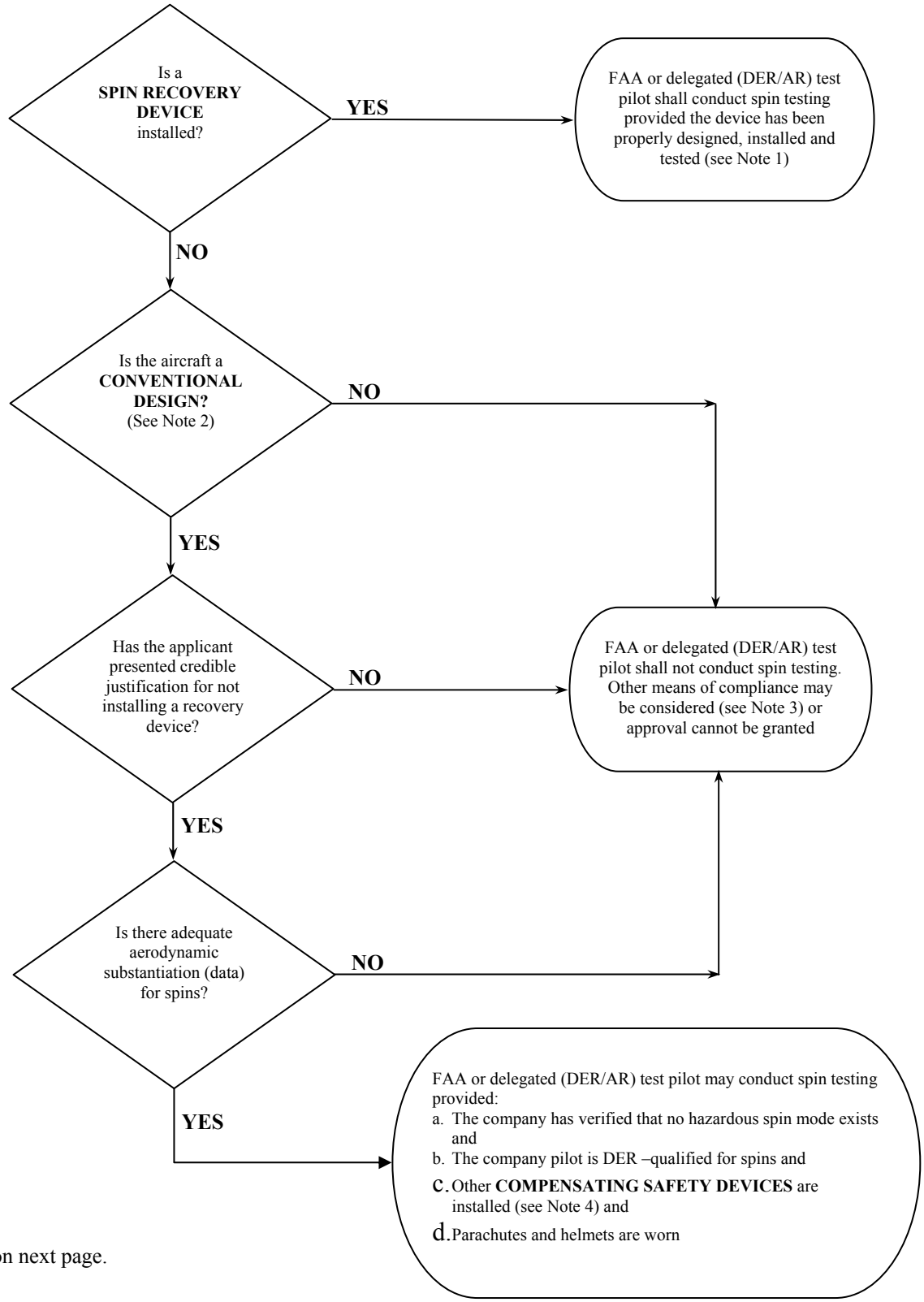
A preflight meeting will be held to review the flight, including the maneuvers that will be flown and/or demonstrated and safety precautions that will be followed.

This LOA meets the Risk Management requirements of FAA Order 4040.26A.

John J. Doe
Flight Program Executive

APPENDIX 6. SPIN TEST/RECOVERY DEVICE REQUIREMENT

DECISION TREE



See Notes on next page.

Notes for Spin Test/Recovery Device Requirement Decision Tree:

1. **Spin Recovery Device testing requirements.** The following requirements for spin recovery parachutes (spin chutes) are necessary in order to be acceptable for use during FAA flight-testing**:**
   a. The applicant must demonstrate that the spin chute can be deployed and released safely during flight. For spin recovery devices with a satisfactory history on similar installations, use of a ground deployment/jettison test may be acceptable provided the appropriate risk assessment is made.
   b. During extensive program delays or for follow-on spin testing, the applicant may be required to repeat the in-flight deployment and release demonstration.
   c. The design must follow the guidance provided in AC 23-8B, Chapter 2, Paragraph 100 b (5) Spin Recovery Parachutes.

2. **Conventional design.** For the purposes of this decision tree, a conventional design is defined as follows:
   a. A conventional tail* (no canards, forward wing design or T-tail).
   b. Wing - Positive or neutral camber with no leading edge devices, significant sweep or winglets.
   c. Engine - A tractor type propeller design with the thrust axis in line with the fuselage.
   d. Positive static margin.
   e. No new or novel aerodynamics, propulsion or control design.
   f. Floats are acceptable.

   *See NASA Technical Paper 2644, February 1987, "Flight Investigation of the Effect of Tail Configuration on Stall, Spin, and recovery Characteristics of a Low-Wing General Aviation Airplane" for information on cruciform tails.

3. **Company Flight Test Program**. The following should be considered when planning a company spin program and FAA demonstration when a spin recovery device will not be used:
   a. The FAA test pilot chases the test airplane during company spin demonstrations and
   b. Video cameras (time coded) are installed in the test airplane cockpit to show control inputs and aircraft motions during spins; or
   c. The test airplane is instrumented to show control inputs and aircraft motions during spins.

4. **Other compensating devices**. The following devices are recommended individually or in combination as mitigating factors when an FAA test pilot is conducting spin testing without a spin recovery device installed:
   a. Jettisonable cockpit door that has been properly designed and tested.
   b. Alternative escape options such as a second cockpit door or other doors installed
   c. Ropes or handles installed to assist in reaching alternative escape means.
   d. Proposed non-cockpit doors must be easily opened or jettisonable
   e. Quick-disconnect seat restraints.
   f. Chase airplane.

APPENDIX 7. FAA FLIGHT TEST PILOT SEAT POSITION SAMPLE LETTER

Applicants Requiring Federal Aviation Administration (FAA)
Flight Tests

Dear Applicant:

Subject: FAA Flight Test Pilot (FTP) Seat Position

During certification flight-testing by FAA flight test pilots, it may be necessary for them to occupy either the left seat or the right seat of the aircraft being flight-tested. The actual seat position will be determined by the system being evaluated. Systems involving either aircraft performance, handling qualities, avionics systems integration or pilot workload require evaluations where the FAA FTP needs to manipulate the controls from the position in which FAA approval is being requested. Performance and handling qualities flight tests are normally flown from the left seat (right seat for most helicopters); avionics systems integration tests are normally flown from the left seat, if approval for high gain tasks such as approaches are sought. In cases where the left and right seat implementation is identical, evaluations may be conducted from the right seat. The assigned FAA FTP makes the ultimate decision as to which seat is to be used on a case-by-case basis.

The authority for FAA FTPs to manipulate the controls of aircraft being flight-tested for the purpose of certification comes from §21.33 of the Federal Aviation Regulations, 14 CFR §21.33. That section provides that "each applicant must allow the Administrator to make any inspection and any flight and ground test necessary to determine compliance with the applicable requirements of the Federal Aviation Regulations."

During FAA certification flight tests, the FAA FTP will not act as Pilot-in-Command (PIC). Takeoffs and landings by the FAA FTP are only necessary if required by the test plan. Even if the aircraft to be evaluated is type certificated for more than one pilot flight crewmember, the FAA FTP need not be fully current as second-in-command (SIC) in order to occupy a pilot flight crewmember position. Section 61.55 provides that for the purposes of "aircraft flight test or airborne equipment evaluation" a person may act as SIC of an aircraft requiring more than one pilot flight crewmember without having logged the necessary takeoffs and landings or performed the necessary engine out procedures to maintain currency as SIC.

FAA FTPs are highly qualified with extensive flight test experience in multiple types of aircraft. In addition, they maintain flight proficiency through certification flight-testing and a rental aircraft program, which includes simulators; they also often obtain type ratings in aircraft they are expected to fly. There should be no question that before a test flight, an FAA FTP has become familiar with all information concerning that aircraft's powerplant, major components and systems, major appliances, performance and limitations, standard and emergency operating procedures, and the contents of the approved aircraft flight manual or approved flight manual material, placards, and markings.

Please contact this office should you or your insurance carrier need additional information about the FAA FTP before the test flight.

Sincerely,

APPENDIX 8. MEDICAL STANDARDS FOR FAA FLIGHT TEST ENGINEERS

1. Eye. Eye standards for a third-class airman medical certificate qualification are:

a. Distant visual acuity of 20/40 or better in each eye separately, with or without corrective lenses. If corrective lenses (spectacles or contact lenses) are necessary for 20/40 vision, the person may be eligible only on the condition that corrective lenses are worn while exercising the privileges of an airman certificate.

b. Near vision of 20/40 or better, Snellen equivalent, at 16 inches in each eye separately, with or without corrective lenses.

c. Ability to perceive those colors necessary for the safe performance of airman duties.

d. No acute or chronic pathological condition of either eye or adnexa that interferes with the proper function of an eye, that may reasonably be expected to progress to that degree, or that may reasonably be expected to be aggravated by flying.

2. Ear, nose, throat, and equilibrium. Ear, nose, throat, and equilibrium standards for a third-class airman medical certificate qualification are:

a. The person shall demonstrate acceptable hearing by at least one of the following tests:

(1) Demonstrate an ability to hear an average conversational voice in a quiet room, using both ears, at a distance of 6 feet from the examiner, with the back turned to the examiner.

(2) Demonstrate an acceptable understanding of speech as determined by audiometric speech discrimination testing to a score of at least 70 percent obtained in one ear or in a sound field environment.

(3) Provide acceptable results of pure tone audiometric testing of unaided hearing acuity according to the following table of worst acceptable thresholds, using the calibration standards of the American National Standards Institute, 1969:

Frequency (Hz)	500 Hz	1000 Hz	2000 Hz	3000 Hz
Better ear (Db)	35	30	30	40
Poorer ear (Db)	35	50	50	60

b. No disease or condition of the middle or internal ear, nose, oral cavity, pharynx, or larynx that --

(1) Interferes with, or is aggravated by, flying or may reasonably be expected to do so;

or

(2) Interferes with clear and effective speech communication.

c. No disease or condition manifested by, or that may reasonably be expected to be manifested by, vertigo or a disturbance of equilibrium.

APPENDIX 8. MEDICAL STANDARDS FOR FAA FLIGHT TEST ENGINEERS (CONTINUED)

3. Mental. Mental standards for a third-class airman medical certificate qualification are:

a. No established medical history or clinical diagnosis of any of the following:

(1) A personality disorder that is severe enough to have repeatedly manifested itself by overt acts.

(2) A psychosis. As used in this section, "psychosis" refers to a mental disorder in which --

(a) The individual has manifested delusions, hallucinations, grossly bizarre or disorganized behavior, or other commonly accepted symptoms of this condition; or

(b) The individual may reasonably be expected to manifest delusions, hallucinations, grossly bizarre or disorganized behavior, or other commonly accepted symptoms of this condition.

(3) A bipolar disorder.

(4) Substance dependence, except where there is established clinical evidence, satisfactory to the Federal Air Surgeon, of recovery, including sustained total abstinence from the substance(s) for not less than the preceding 2 years. As used in this section --

(a) "Substance" includes: alcohol; other sedatives and hypnotics; anxiolytics; opioids; central nervous system stimulants such as cocaine, amphetamines, and similarly acting sympathomimetics; hallucinogens; phencyclidine or similarly acting arylcyclohexylamines; cannabis; inhalants; and other psychoactive drugs and chemicals; and

(b) "Substance dependence" means a condition in which a person is dependent on a substance, other than tobacco or ordinary xanthine-containing (e.g., caffeine) beverages, as evidenced by --

1. Increased tolerance;

2. Manifestation of withdrawal symptoms;

3. Impaired control of use; or

4. Continued use despite damage to physical health or impairment of social, personal, or occupational functioning.

b. No substance abuse within the preceding 2 years defined as:

(1) Use of a substance in a situation in which that use was physically hazardous, if there has been at any other time an instance of the use of a substance also in a situation in which that use was physically hazardous;

(2) A verified positive drug test result conducted under an anti-drug rule or internal program of the U.S. Department of Transportation or any other Administration within the U.S. Department of Transportation; or

APPENDIX 8. MEDICAL STANDARDS FOR FAA FLIGHT TEST ENGINEERS (CONTINUED)

(3) Misuse of a substance that the Federal Air Surgeon, based on case history and appropriate, qualified medical judgment relating to the substance involved, finds --

(a) Makes the person unable to safely perform their flight duties or exercise the privileges of the airman certificate applied for or held; or

(b) May reasonably be expected, for a duration of the maximum one year of the airman medical certificate applied for or held, to make the person unable to perform those flight duties. or exercise those privileges.

c. No other personality disorder, neurosis, or other mental condition that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds --

(1) Makes the person unable to safely perform their flight duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for a duration of the maximum one year of the airman medical certificate applied for or held, to make the person unable to perform those flight duties. or exercise those privileges.

4. Neurological. Neurological standards for a third-class airman medical certificate qualification are:

a. No established medical history or clinical diagnosis of any of the following:

(1) Epilepsy;

(2) A disturbance of consciousness without satisfactory medical explanation of the cause; or

(3) A transient loss of control of nervous system function(s) without satisfactory medical explanation of the cause.

b. No other seizure disorder, disturbance of consciousness, or neurological condition that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds --

(1) Makes the person unable to safely perform their flight duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for duration of the maximum one year of the airman medical certificate applied for or held, to make the person unable to perform those flight duties. or exercise those privileges.

5. Cardiovascular. Cardiovascular standards for a third-class airman medical certificate are no established medical history or clinical diagnosis of any of the following:

a. Myocardial infarction;

b. Angina pectoris;

APPENDIX 8. MEDICAL STANDARDS FOR FAA FLIGHT TEST ENGINEERS (CONTINUED)

c. Coronary heart disease that has required treatment or, if untreated, that has been symptomatic or clinically significant;

d. Cardiac valve replacement;

e. Permanent cardiac pacemaker implantation; or

f. Heart replacement.

6. General medical condition. The general medical standards for a third-class airman medical certificate qualification are:

a. No established medical history or clinical diagnosis of diabetes mellitus that requires insulin or any other hypoglycemic drug for control.

b. No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds --

(1) Makes the person unable to safely perform their duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for a duration of the maximum one year of the airman medical certificate applied for or held, to make the person unable to perform those flight duties. or exercise those privileges.

c. No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds --

(1) Makes the person unable to safely perform their duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for a duration of the maximum one year of the airman medical certificate applied for or held, to make the person unable to perform those flight duties or exercise those privileges.

APPENDIX 9 FAA AIR FLIGHT PROGRAM SAMPLE FORMS

1. The forms in this section are sample forms that are to be used to document flight program activity. The current forms and instructions for their completion is included on the AIR Flight Program Sharepoint site.

PERMANENT FILE COPY ☐

FLIGHT PROGRAM CREWMEMBER AUTHORIZATION AND DATA

* Required Entries

***ACTION →** ☐ Add ☐ Crewmember Status *(Explain in Remarks)* ☐ Transfer ☐ Currency *(Explain in Remarks)* ☐ Delete

1. Certificate Number: _____ Certificate Date: _____

***2. Crew No:** _____ Transfer To: _____ New Crew Number: _____

***3. Name** (First, MI, Last): _____

***4. Pay Schedule:** _____ **Series:** _____ ☐ **Line** ☐ **Staff**

***5. Routing Symbol:** _____

6. Medical Date: _____ Medical Class: ☐ 1 ☐ 2 ☐ 3

7. Flight Program Crewmember Establishment Date: _____

8. Change Crewmember Status To: ☐ Active ☐ Inactive Date: _____

***9. Assignments**

	Add	Delete	Job Category	Aircraft
1	☐	☐		
2	☐	☐		
3	☐	☐		
4	☐	☐		
5	☐	☐		
6	☐	☐		
7	☐	☐		
8	☐	☐		
9	☐	☐		
10	☐	☐		

10. Remarks / Justification: _____

***11. Crewmember Signature:** _____ **Date:** _____

NOTE: With the exception of a DELETE Action, affixing your signature below indicates this individual is authorized to participate in the FAA Flight Program in order to meet job requirements.

***12. Approving Official Signature:** _____

Title: _____ **Date:** _____

OFFICE USE ONLY	
13. DATA ENTRY	
Initials	Date

FACTS FAA Form 4040-7 AIR (Dec 11) Supersedes previous edition

FLIGHT PROGRAM CREWMEMBER DATA ENTRY FORM

* Required Entries

*ACTION ➔ ☐ Completion of Training ☐ Currency

*1. **Name** (Last, First, MI): _____

*2. **Crew No:** _____

*3. **Routing Symbol:** _____

*4. **Event Completion**

Event Completed	Date Completed	Aircraft	Requirement	Attach
☐ Recurrent Flight Training Course Competency Check (CO)			☐ Proficiency ☐ Instrument	4040-2
☐ Rental Aircraft Flight Check Competency Check (CO)			☐ Proficiency ☐ Instrument	4040-2
☐ Recurrent Flight Training Course Requalification (RQ)			☐ Proficiency ☐ Instrument	4040-2
☐ Flight Test Course			☐ Initial ☐ Recurrent	Copy of Certificate
☐ CRM			☐ Initial ☐ Recurrent	Copy of Certificate
☐ Physiological Training			☐ Classroom ☐ Chamber	Copy of card
☐ Survival Training			☐ Initial ☐ Recurrent	Copy of card
☐ Medical Renewal			☐ Class 1 ☐ Class 2 ☐ Class 3	Copy of Certificate
☐ 61.56 Flight Review			☐ Biennial	4040-2
☐ Other (describe in Remarks)				

*5. **Crewmember Signature:** _____ **Date:** _____

6. Remarks / Justification: _____

_____

- This form documents data for entry into the FACTS program. Complete this form to upon completion of training and other currency requirements. Currency requirements include check rides, CRM, Survival training, and Physiological training.
- Authorizing official signature is not required for the items documented on this form.
- File in individual file folder after entry in FACTS.

OFFICE USE ONLY	
7. DATA ENTRY	
Initials	Date

FACTS Data Entry Form 4040-7A AIR (Mar 2009)

Permanent File Copy ☐

FAA CREWMEMBER CHECK RECORD

Ref: Order 4040.9

1. Crew #
2. Name of Airman *(last, first, middle initial)*
3. Check Location
4. Date of Check
5. Type of Check(s): ☐ Initial (IQ) ☐ Recurrent / Competency (CO) ☐ Requalification (RQ) ☐ Instrument (CO) ☐ Line Check / Other ☐ Flight Inspection Mission
6. Routing Symbol
7. Airman Certificate (Commercial Pilot, Airline Transport Pilot, Flight Engineer) Grade: Certificate #:
8. Medical Information: Class: Date:
9. Type Airman ☐ Pilot ☐ Engineer ☐ Technician
10. Name of Check Airman *(PRINT: last, first, middle initial)*
11. Aircraft *(Registration Number, Aircraft Make / Model / Class)*
12. Simulator / Training Device *(Make / Model / Class)* Circle appropriate level: A B C D 1 2 3 4 5 6 7
13. Block Time
14. Ground Time

15. MANEUVERS / PROCEDURES GRADE
(S – Satisfactory U - Unsatisfactory NA - Not Applicable W - Waived)

I. AIRPLANE (SEL, SES, MEL, MES)	Acft	Sim
A. PREFLIGHT		
1. Equipment Exam *(Oral or Written)*		
2. Preflight Inspection		
3. Taxiing		
4. Sailing (Sea)		
5. Pre-takeoff Checks		
B. TAKEOFFS		
1. Normal		
2. Crosswind		
3. With Sim. Powerplant Failure		
4. Rejected Takeoff		
5. Glassy water (Sea)		
6. Rough water (Sea)		
C. INFLIGHT MANEUVERS		
1. Steep Turns		
2. Approach to Stalls		
3. Simulated Engine Failure		
4. Abnormal Procedures		
5. Slow Flight		
D. LANDINGS		
1. Normal		
2. Crosswind		
3. Glassy Water (Sea)		
4. Rough Water (Sea)		
5. No-Flap		
6. With Simulated Engine Failure		
7. Rejected Landing		
8. Beaching/Ramping or Docking/Mooring (Sea) circle one		
E. EMERGENCIES		
1. Emergency Procedures		
2. Emergency Descent		

II. HELICOPTER	Acft	Sim
A. PREFLIGHT		
1. Equipment Exam (Oral or Written)		
2. Preflight Inspection		
3. Preflight Checks		
B. HOVERING		
1. Hovering Maneuvers		
2. Surface/Air Taxi/Hover		
3. Slopes		
C. TAKEOFFS		
1. Normal		
2. Crosswind		
3. Running Takeoff (Wheel Type)		
4. Pinnacle		
5. Confined Area		
D. IN-FLIGHT MANEUVERS		
1. Rapid Decelerations		
2. Steep Turns		
3. Simulated Engine Failure		
4. Abnormal Procedures		

(II. HELICOPTER – continued)	Acft	Sim
E. LANDINGS		
1. Normal		
2. Crosswind		
3. Pinnacle		
4. Confined Area		
5. Autorotations		
6. Go Around		
F. EMERGENCIES		
1. Emergency Procedures		
2. Tail Rotor Failure (Oral or Flight)		
3. .Ground Resonance (Ground)		
4. Low G Conditions (Oral)		
5. Dynamic Rollover (Oral)		
6. LTE (Oral)		
7. Settling with Power (Oral or flight)		
8. Power failure at Hover		
VIII. OTHER		
1. Judgment		
2. Crew Resource Management		
3. Regulation / Publication Review		
4. Other (specify)		

16. FLIGHT CHECK EXPIRATION REFERENCE

a. Aircraft and Current Knowledge — (12 months) Expires
IAW: ☐ Order 4040.9

b. Competency Check — (12 months) Expires
IAW: ☐ FAR 61.58 ☐ Order 4040.9

c. IFR Proficiency Check — (6 months) Expires
IAW: ☐ FAR 61.57 ☐ Order 4040.9

f. Requalification Check Flight ☐ — (12 months) Expires

g. Instructor Proficiency — (12 months) *(see item X. on reverse side)* Expires

h. Check Airman Proficiency — (12 months) *(see item XI. on reverse side)* Expires

I. Other Check
☐ 61.56 Flight Review ☐ *(Specify)* Expires

17. RESULTS OF CHECK ☐ Satisfactory ☐ Unsatisfactory ☐ Incomplete

18. REMARKS: *(May be continued on back)*

19. Signature – Approving Official

20. Signature – Airman

21. Signature of person giving Check

(optional) Check Airman Authority Date (FI)
_____/_____/_____*(optional)*

Data Entry
Initials | Date

FAA Form 4040-2 AIR (3/09) (Replaces previous edition)

15. *(continued)* **MANEUVERS / PROCEDURES GRADE**
(S – Satisfactory U - Unsatisfactory NA - Not Applicable W – Waived)

	Acft	Sim
III. INSTRUMENT – AIRPLANE / HELICOPTER		
A. PROCEDURES		
1. Instrument takeoff (RVR:)		
2. Area Departure		
3. Unusual Attitudes		
4. Holding		
5. Area Arrival		
6. Precision Approaches		
Type:		
Type:		
7. Landing from a Precision Approach		
8. Non-Precision Approaches		
Type:		
Type:		
9. Circling Approach		
10. Landing from Circling (airplane)		
11. Missed Approach		
12. Navigation procedures		
13. Communication Procedures		
14. Use of Autopilot		
IV. GLIDER		
A. PREFLIGHT		
1. Equipment Exam (Oral or Written)		
2. Preflight Inspection		
3. Visual Signals		
4. Pre takeoff Checks		
B. TAKEOFFS AERO		
1. Normal		
2. Crosswind		
3. Slack Line		
4. Box the Wake		
C. TAKEOFFS GROUND		
1. Normal		
2. Crosswind		
D. TAKEOFFS SELF LAUNCH		
1. Taxiing		
2. Normal		
3. Crosswind		
E. IN-FLIGHT MANEUVERS		
1. Steep Turn		
2. Approach to Stalls		
3. Minimum Sink Airspeed		
4. Speed to Fly		
5. Abnormal Procedures		
6. Engine Shutdown In Flight		
F. LANDINGS		
1. Normal		
2. Crosswind		
G. EMERGENCIES		
1. Emergency Procedures		
2. Simulated Rope Break		
V. GYROPLANE		
A. PREFLIGHT		
1. Equipment Exam (Oral or Written)		
2. Preflight Inspection		
3. Taxiing		
4. Pre takeoff Checks		

	Acft	Sim
B. TAKEOFFS		
1. Normal		
2. Crosswind		
C. IN-FLIGHT MANEUVERS		
1. Steep Turn		
2. Slow Flight		
3. High Rate of Descent Recovery		
4. Simulated Engine Failure		
5. Abnormal Procedures		
D. LANDINGS		
1. Normal		
2. Crosswind		
3. Go-Around		
E. EMERGENCIES		
1. Emergency Procedures		
2. Lift Off at Low Airspeed & High Angle of Attack (Oral)		
3. Ground Resonance (Oral)		
VI. BALLOON		
A. PREFLIGHT		
1. Equipment Exam (Oral or Written)		
2. Preflight Inspection		
3. Pre-Launch Checks		
B. LAUNCHES		
1. Normal		
C. IN-FLIGHT MANEUVERS		
1. Ascents		
2. Altitude Control (Level Flight)		
3. Descents		
D. LANDINGS		
1. Normal		
2. Steep Approach to Landing		
3. High Wind Landing (oral or flight)		
E. EMERGENCIES		
1. Emergency Procedures		
VII. AIRSHIP		
A. PREFLIGHT		
1. Equipment Exam (Oral or Written)		
2. Preflight Inspection		
3. Unmasting & Positioning for Takeoff		
4. Pre Takeoff Check		
B. TAKEOFFS		
1. Ground Weigh-Off		
2. Up-Ship Takeoff		
3. Wheel Takeoff		
C. IN-FLIGHT MANEUVERS		
1. Flight To/From at Pressure Height (Oral or flight)		
2. In-Flight Weigh-Off		
3. Manual Pressure Control		
4. Static and Dynamic Trim		
5. Engine Failure During Flight		
6. Abnormal Procedures		
D. LANDINGS		
1. Normal		
2. Go-Around		
3. Masting		

	Acft	Sim
E. EMERGENCIES		
1. Emergency Procedures		
2. Aborted Takeoff		
3. Engine Failure During Takeoff		
4. Engine Failure During Flight		
IX. LINE CHECK (FAR 135)		
1. Predeparture / Preflight Planning		
2. Dispatch		
3. Flight Operations		
4. Crew Resource management		
5. Forms and Records		
6. Other (specify)		
X. INSTRUCTOR AUTHORIZATION		
1. Fundamentals of Instructing		
2. Technical Subject Areas		
3. Flight Profile		
4. Flt. Maneuvers (left & right seat)		
5. Airman Evaluation Techniques		
XI. CHECK AIRMAN AUTHORIZATION		
1. Fundamentals of Instructing		
2. Technical Subject Areas		
3. Flight Profile		
4. Flt. Maneuvers (left & right seat)		
5. Airman Evaluation Techniques		
XII. FLIGHT ENGINEER		
1. Equipment Exam (Oral or Written)		
2. Preflight Inspection		
3. Normal Operating Procedures		
4. Abnormal Operating Procedures		
5. Performance Data		
6. Cruise Control		
7. Troubleshooting		
8. Emergency Procedures		
9. Forms and Records		
10. Post Flight		

REMARKS *(cont'd)*

FAA Form 4040-2 AIR (3/09) (Replaces previous edition)

FAA Aircraft Request and Use Record

(Use of FAA aircraft must be in accordance with Order 4040.9 as amended)

1. Source of Aircraft
☐ FAA ☐ Rental
☐ Out of Agency (Crew Data Only)

2. Type Aircraft Desired
☐ A/C _____
☐ Sim. _____
☐ FTD _____

3. Date(s) Required
From: _____
To: _____

4. Type of Flight
☐ FAR 91
☐ FAR 135
☐ Other

5. Passenger Information
Reportable to GSA ☐ Yes ☐ No
Space available for additional passengers ☐ Yes
(reference instructions)

6. POF Codes:

☐ 01. Evaluation	☐ 05. Logistics	☐ 09. Reimbursable	☐ 13. Aircraft Certification Testing	☐ 17. Ground time
☐ 02. Currency	☐ 06. R&D	☐ 10. Test & Ferry	☐ 14. Military	☐ 18. NASE Flight
☐ 03. Transportation	☐ 07. Formal Training	☐ 11. Flight Standards Itinerary	☐ 15. Observation Flight	☐ 19. Repositioning
☐ 04. Check Flight	☐ 08. Proficiency Q&S	☐ 12. Accident Investigation	☐ 16. Other	☐ 20. Flight Inspection

Remarks: _____

Proposed Itinerary _____ - _____ - _____ - _____ **Project Number** _____ **Touchdown Autorotations** ☐

PIC _____ **SIC** _____ **Other(s)** _____ **EST Flight Hours** _____ **EST Cost $** _____

Approval Required Before Flight — Signature	Printed Name/Title	Rtg Symbol	*Date*
7. Requested By:			
8a. Approved By:			
8b. Chief or Regional Council Approval:			

Aircraft Utilization Data

9. Registration (N) Number	10. Aircraft Make / Model	11. Aircraft Class	12. User Code	13. Cost Center	14. Reimbursement Account

15. Itinerary **a. Date of Flight** ____/____/____ **Aircraft Use Data**

Leg #	POF #1	POF #2	From	To	Block Out	Takeoff	Landing	Block In	Time in Service	Total Time (TOT)	# Passengers
m. Totals ----------											

16. Crew Member Accomplishments **Flight Time** *(Enter Flight Times in Hours and 1/10)*

Budget	Crew #	Crew Name	PIC		SIC		Pilot		IP		FE		Other		Hood		IMC		Night		Takeoff		Ldgs		Hold	Apprchs	
			HRS	1/10	HRS	1/10	HRS	1/10	HRS	1/10	HRS	1/10	HRS	1/10	HRS	1/10	HRS	1/10	HRS	1/10	D	N	D	N	#	P	N

17. Charges
A. Aircraft Rental Hourly Rate $/hr
B. Rental Time Hrs
C. Air craft Rental Cost $
D. Fuel & Lubricants $
E. Landing & Tie Down Fees $
F. Other $
G. TOTAL COST $

18. Aircraft Rented From
Name _____
Address _____
City _____ State _____ Zip _____
Ph (___) ___-____ Ext. ____ Fax (___) ___-____

19. Method of Payment
☐ Contract or BPA Rental Time
Contract # _____
☐ Government Credit Card
☐ Convenience Check _____
☐ Purchase Order PO # _____

20. Fuel Data

Fuel Type	Unit of Measure	Quantity Used (Total)	Fuel Cost (Total)
☐ AV Gas ☐ Jet fuel	☐ Liters ☐ Gallons		

21. Data Entry

Data Entry →	Initials	Date	Reference Number

FAA Form 4040-6 AIR (December, '12) Supersedes previous edition

AFTER FLIGHT: Return to Approving Office Without Delay

22. RISK ASSESSMENT

☐ **LOW** — PIC

☐ **MEDIUM** — Manager in charge of flight test or next higher management level if the flight test manager is the pilot flying the test
MGR Initials _____

☐ **HIGH** — Manager in charge of flight test or next higher management level if the flight test manager is the pilot flying the test.
MGR Initials _____

☐ **EXTREMELY HIGH** — PROHIBITED

a. MEDIUM RISK:

- ☐ NVG
- ☐ MSN PLANNING time < 1 hour
- ☐ CREW REST – Deviation from FTOM in effect.
- ☐ CREW DUTY HOURS – Deviation from FTOM in effect.
- ☐ WX < 1000' / 3 miles (day) or < 1500' / 5 miles (night) or IMC
- ☐ A/C QUALIFICATION Training Flight
- ☐ 4040-2 Flight
- ☐ PIC Does Not Meet the Flight Currency Requirements of FTOM 204. c.

b. HIGH RISK:

- ☐ 3 or more MEDIUM RISKS
- ☐ WX < 500' / 1 mile (day) or < 1000' / 3 miles (night)
- ☐ LIGHT ICING

c. EXTREMELY HIGH RISK:

- ☐ 2 or more HIGH RISKS
- ☐ FORECAST SEVERE TURBULANCE
- ☐ FORECAST MODERATE ICING

d. LOW RISK:

- ☐ No Medium, High, or Extremely High Risk selected

23. Manifest

a. Non-Crewmember/Passenger Name (First, Middle Initial, Last)	b. Leg(s) of Flight 1 2 3 4 5	c. Dept / Agy / Rtg Sym	d. Phone	e. If Executive SES SFO/SEBO Other	h. Emergency Contact Name and Phone
	☐☐☐☐☐			☐ ☐ ☐	
	☐☐☐☐☐			☐ ☐ ☐	
	☐☐☐☐☐			☐ ☐ ☐	
	☐☐☐☐☐			☐ ☐ ☐	
	☐☐☐☐☐			☐ ☐ ☐	
	☐☐☐☐☐			☐ ☐ ☐	

Emergency Contact Information is required for everyone on board the aircraft. Crewmember information should be on file at their home base. Information on special project crewmembers, passengers or observers must be recorded. A copy must be left with a responsible party on the ground before the flight, and must be filed after the flight as part of the official record of the flight.

CREW DATA ONLY WORKSHEET

Crew Data: Name: _____ Crew # _____

Purpose of Flight*	Date of Flight	Aircraft Type or Category	N Number or Sim Level	Flight Time (Enter Flight Times in Hours and 1/10)									Events							Out of Agency
				PIC	CP	Pilot	IP	Other	Hood	Wthr.	Night	TOTAL	Takeoffs		Landings		Apprchs		Hold	
				HRS	HRS	HRS	HRS	HRS	HRS	HRS	HRS	HRS	D	N	D	N	P	N		
			Totals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	

* Purpose of flight: 02 - Currency; 04 - Check Flight; 07 - Training; 13 - Certification Testing, 14 - Military; 15 - Observation flight; 16 - Other.

_____
Signature

_____
Date

This worksheet may be used as a substitute for FAA Form 4040-6 to record flight time accomplished out-of-agency. Multiple flights may be recorded on the same sheet; each flight, however, must be entered separately into FACTS.

*One of these codes should be used for the flight.

Databank Entry	
Initials	Date

GENERAL FTOM DEVIATION REQUEST

Date: _____

Requesting Crewmember(s): _____ _____

_____ _____

FTOM APPLICABLE PARAGRAPH(S)

Chapter	Section	Paragraph	Subject

DESCRIPTION OF DEVIATION REQUESTED

DESCRIPTION OF RISK MITIGATION FOR DEVIATION (if applicable)

REQUESTING FAA CREWMEMBER:

_____ _____

Crewmember Signature Date

MANAGEMENT - Comments/Recommendations:

_____ _____ ☐ APPROVED

Manager Signature Date ☐ DENIED

Record to be maintained by the flight crew member's immediate supervisor or his/her designee.

FTOM SECTION 206 EXTENSION TO MAXIMUM CREW DUTY TIME FOR FAA AIR CREWMEMBERS

Date: _____

FAA Crewmember(s): _____ _____ _____

_____ _____ _____

Other Crew Members: _____ _____ _____

_____ _____ _____

Aircraft Tail Number: _____

Aircraft Type : _____

TYPE OF EXTENSION REQUESTED

- ☐ FTOM 206. a. Basic Crew Duty Hours (Extending Basic Crew Duty Hours from 12 to 14)
- ☐ FTOM 206. b. Crew Rest (Extending Mandatory Crew Rest from "1 off in every 7 days" to "1 off in every 8 days.")
- ☐ FTOM 206. c. High Risk Test Flight Crew Duty Hours (Extending Crew Duty Hours from 10 to 12)
- ☐ FTOM 206. d. Training Flight Crew Duty Hours (Extending Crew Duty Hours from 10 to 12)
- ☐ FTOM 206. e. Multi-Pilot Flight Crew Duty Hours (Extending Crew Duty Hours from 16 up to 24)

PROPOSED CREW DUTY TIME

Date of Duty Extension : _____

Planned Report for Duty Time: _____

Planned Finish Duty Time: _____

Total Planned Duty Time: _____

REQUESTING FAA CREWMEMBER - Description of Events/Requirements and Planned Risk Mitigation:

_____ _____

Crewmember Signature Date

FLIGHT TEST BRANCH MANAGER or ACO MANAGER - Comments/Recommendations:

_____ _____ ☐ APPROVED

Manager Signature Date ☐ DENIED

Record to be maintained by the flight crew member's immediate supervisor or his/her designee.

APPENDIX 10. ACCIDENT/INCIDENT RESPONSE PLAN

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

Aircraft Certification Service Flight Program
Accident/Incident Response Plan

REV IR 12/19/2012

NOTE: IF YOU ARE REFERENCING THIS DOCUMENT DUE TO AN ACTUAL ACCIDENT OR INCIDENT, TURN TO TAB 2 AND BEGIN THE CHECKLIST.

1.0 Objectives. This plan provides AIR Flight Program crewmembers with a structured process for appropriately responding to an aircraft accident or incident involving AIR personnel, while on official duty.

- The first objective of this response plan is to support the needs of the victims, and others involved, in a timely, considerate manner.
- The second objective is to support the thorough investigation of the circumstances leading up to the accident or incident, and to prevent similar occurrences in the future.

NOTE:

For overdue or suspected missing aircraft believed to have been involved in an accident, see section 5.4 of this plan.

For an employee accident or incident not involving an aircraft, reference your local OSHECOM procedures.

For in-flight injuries or serious medical problems to passengers or crew members, land at the nearest suitable airport/facility and follow the checklist in Tab 2 to the greatest extent possible, in order to attain required assistance and document the situation for report to the authorities (if required).

2.0 Reference. This plan is required by Chapter 5 of the Aircraft Certification Service (AIR) Flight Test Operations Manual. It complies with:

- 41 CFR 102-33.185
- FAA Order 4040.26, *Aircraft Certification Service Flight Test Rick Management Program,*
- FAA Order 8020.11, *Aircraft Accident and Incident Notification, Investigation, and Reporting,*
- FAA Order 4040.9, Section 5, *FAA Aircraft Management Program,* and
- 49 CFR 830, *Notification and Reporting of Aircraft Accidents or Incidents.*
- NTSB Document SPC-99/04, Federal Plan for Aviation Accidents Involving Aircraft Operated by or Chartered by Federal Agencies, October 7, 1999.

Current versions of the FAA documents are maintained in the FAA Regulations & Guidance Library (RGL).

3.0 Distribution. The following personnel will maintain a copy of this plan at home to include the appropriate Tab 3 and Tab 4 information:

Facility Manager: Directorate Manager or ACO Manager
Flight Test Manager (if applicable)
Facility Flight Safety Officer (FFSO)
Alternate Facility Flight Safety Officer (if applicable)

All Flight Test Pilots (FTP) and Flight Test Engineers (FTE) will insert a copy of Tab 3 of this plan in Appendix 10 of their Flight Test Operations Manual (FTOM), for all offices in which they will be participating in flight activities and provide their emergency contact information to all offices in which they will be participating in flight activities.

In the case where all accident crewmembers may be incapacitated, it is imperative that applicants or aircraft operators know how to start the notification process. A copy of the "Applicant / Aircraft Operator Checklist" (Checklist 4), the "Accident Notification Checklist" (Checklist 2), and the "Tab 3 Important Telephone Numbers" sheet should be left with the applicant or aircraft operator prior to flight and they should be briefed on the process.

4.0 Personal Contact Information. The Accident/Incident Response Binder contains personal information that must be adequately protected, specifically the Important Telephone Numbers List at Tab 3 page 3-1A and the Emergency Contact Information at Tab 4. Page 3-1 will be placed in Tab 3 for all crewmembers and Page 3-1A will be placed in Tab 3 for the Facility Flight Safety Officer and applicable managers only. The Emergency Contact Information will be printed annually from FACTS and placed in Tab 4 for the Facility Flight Safety Officer and applicable managers only. AIR personnel who do not have information in FACTS must verify with their management that complete emergency contact information is on file at their respective office before flying on official duty. This includes flights on rental and test aircraft. For rental flights the passenger manifest portion on the back of FAA Form 4040-6 must be completed prior to flight and kept on file at the local ACO/Directorate until the flight is complete.

5.0 Definitions. When reporting an accident or incident, refer to the following definitions.

5.1 Facility Manager: This is either the ACO Manager or the Directorate Manager depending on the office, **a**s the reporting structure of the individual flight program offices within AIR are different from one office to the next. This person is specifically defined in the Tab 3 call sheet for each Facility.

5.1 Aircraft Accident: An event associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight and all such persons have disembarked, and in which any person suffers death or serious injury, or in which the aircraft receives substantial damage.

5.2 Serious Injury: Any injury which requires hospitalization for more than 48 hours, (starting within 7 days of the injury); results in the fracture of any bone (except fingers, toes, or nose); causes severe hemorrhages, nerve, muscle, or tendon damage; involves any internal organ; or involves any second or third degree burn or any burn affecting more the 5 percent of the body.

5.3 Substantial Damage: 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. This does **NOT** include single engine failures, bent fairings, cowlings, dented skin, ground damage to propeller blades, or damage to landing gear, wheels, tires, flaps, brakes, or wing tips.

5.4 Aircraft Incident: An occurrence, other than an accident, associated with the operation of an aircraft that adversely affects flight safety and requires immediate notification to the NTSB under 49 CFR part 830. These include:

- Flight control system malfunctions or failures
- Inability of a flight crew member to perform normal duties as a result of injury or illness
- Failure of structural components of a turbine engine excluding compressor and turbine blades and vanes
- In-flight fire
- Aircraft collide in flight
- Damage to property other than the aircraft estimated to exceed $25,000
- Aircraft is overdue and is believed to have been involved in an accident
- Large Multi-Engine Aircraft only (more than 12,500 pounds): In-flight failure of electrical systems, hydraulic systems, loss of thrust by two or more engines, or aircraft evacuation using an emergency egress system
- Release of all or a portion of a propeller blade from an aircraft, excluding release caused solely by ground contact;
- A complete loss of information, excluding flickering, from more than 50 percent of an aircraft's cockpit displays known as: (i) Electronic Flight Instrument System (EFIS) displays; (ii) Engine Indication and Crew Alerting System (EICAS) displays; (iii) Electronic Centralized Aircraft Monitor (ECAM) displays; or (iv) Other displays of this type, which generally include a primary flight display (PFD), primary navigation display (PND), and other integrated displays;
- Airborne Collision and Avoidance System (ACAS) resolution advisories issued either: When an aircraft is being operated on an instrument flight rules flight plan and compliance with the advisory is necessary to avert a substantial risk of collision between two or more aircraft; or (ii) To an aircraft operating in class A airspace.
- Damage to helicopter tail or main rotor blades, including ground damage, that requires major repair or replacement of the blade(s);
- Any event in which an operator, when operating an airplane as an air carrier at a public-use airport on land: (i) Lands or departs on a taxiway, incorrect runway, or other area not designed as a runway; or (ii) Experiences a runway incursion that requires the operator or the crew of another aircraft or vehicle to take immediate corrective action to avoid a collision.

5.5 Safety Significant Event (SSE): Any flight or ground event, other than an aircraft accident or incident, which adversely affects the safety of an FAA aircraft or crewmember. These include events that:

- Increased the identified level of risk (flight test only)
- Were unexpected and developed, or could have developed, into an unsafe condition.
- Involved aircraft damage (except for RTO and other runway testing where damage is sometimes expected, e.g., blown tires)
- Resulted in injury to personnel or damage to equipment or property
- Produced lessons learned that could be beneficial to the FAA

SSEs are described in FAA Order 4040.9, Chapter 6, Section 5 and FAA Order 4040.26 Section 8.a. They are not reported to the NTSB or the FAA Regional Operations Centers. They should be coordinated with the FFSO and the Flight Program Flight Safety Officer (FPFSO), and sent to the Senior Flight Safety Officer (SFSO) as expeditiously as possible. Crewmembers wishing to ensure complete confidentiality may use the FAA Safety Hotline, 1-866-230-3679, to make an SSE report.

6.0 Crew Responsibilities.

6.1 Reporting. FAA crew members must report all accidents, incidents, and SSEs to their organizational management and to external agencies in accordance with Chapter 6, Section 5, of Order 4040.9.

6.2 Posting. All AIR crew members will post a copy of this plan, including Tabs 1 through 5, in Appendix 10 of their FTOM.

6.3 Crew Contact Information. All FTPs and FTEs will review their FACTS Emergency Contact Information at least annually. See also Paragraph 4.0 above.

6.4 Accident Response. In the event of an accident or incident, AIR crew members will complete the appropriate checklists at Tab 2. They will also assist the FFSO and/or Management as directed.

6.5 Submit NTSB Form 6120.1 to the NTSB within 10 days after an accident or within 7 days if an overdue aircraft is still missing.

- Each crew member, if physically able at the time the report is submitted, shall attach a statement to the report setting forth the facts, conditions, and circumstances relating to the accident or incident as they appear to him to the best of his knowledge and belief. If the crew member is incapacitated, he shall submit the statement as soon as he is physically able. (NTSB Part 830.15)

6.6 Per 49 CFR 830.15(a) Submit a report on an incident to the NTSB only if requested by an authorized representative of the Board.

7.0 Facility Flight Safety Officer (FFSO) Responsibilities. The FFSO will:

7.1 Ensure that the applicable accident response checklists at Tabs 2 are completed or initiated as appropriate. Consider assuming responsibility for completing theses checklists.

7.2 Notify the appropriate Facility Managers.

7.3 Lead the Accident Response Team (ART) as directed by the Facility Manager. Take those actions directed by the Initial Accident Response Checklist at Tab 2. These actions may include notifying the Regional Operations Center (ROC) and NTSB, collecting and verifying crew information, and securing aircrew records and other pertinent records.

7.4 Assist the Facility Managers as directed

7.5. Regularly review and update this plan. Exercise this plan at least annually.

8.0 Facility Management Responsibilities. The Facility Manger, with the assistance of the Flight Test Manager (if applicable) and the FFSO, will:

8.1 Implement this plan when notified that an aircraft accident or incident involving AIR personnel has occurred.

8.2 Evaluate the level of response needed and ensure the appropriate checklists are completed.

8.3 Verify the identity of all crew members involved. Ascertain the status and location of all crew and passengers, and determine the immediate assistance needed.

8.4 Contact the employing offices and/or points of contact listed for passengers and flight program participants not employed by the local ACO / Directorate as appropriate.

8.5 Take appropriate steps to notify next of kin as described in Paragraph 11.5 below.

8.6 Ensure, to the fullest extent possible, that all possible support services are provided to all victims and their families. A family liaison may be assigned as described in Paragraph 11.6.

8.6.1 Maintain ongoing contact with and provide frequent briefings to the victims and their families on the progress of recovery efforts, the investigation and other areas of concern.

8.6.2 Provide for the return of victims' personal effects to their families. (See FAA Order 4040.9 Appendix G Section 9)

8.6.3 The Facility Manager may request assistance from the appropriate Directorate Support Staff (ACE-103, ANE-103, ANM-103, ASW-103) to obtain member and family benefits, such as life insurance, verification of medical, disability, and retirement benefits, and obtaining immediate living expenses.

8.7 Ensure, to the fullest extent possible, that all possible support services are provided to all employees close to the AIR crewmember(s) that were involved.

8.8 Monitor recovery operations and offer assistance if needed. Assist the local medical examiner as necessary in the identification of fatalities.

9.0 Accident Response Team (ART). The Facility Manager may form an ART composed of members drawn from the employees of the responsible ACO / Directorate and the responsible MIDO. If the incident/ accident occurred during a certification flight, an FTE and MIDO representative should be involved. The team will be activated any time there is an aircraft accident with substantial damage or serious injury involving ACO crewmembers or other FAA personnel supporting the ACO. This response team should, as a minimum, include:

9.1 Facility Flight Safety Officer. The FFSO will have the responsibility for directing the accident response team and ensuring that deadlines are met. The FFSO will ensure that all checklists are completed; reports and statements are filed; and assist the Manager as necessary.

NOTE

Should the Facility Flight Safety Officer be the crewmember involved in the incident/accident his/her responsibilities will revert to the Alternate Facility Flight Safety Officer (where applicable) or to the Flight Test Pilot defined in section 9.2 below.

9.2 Flight Test Pilot. FTP knowledgeable in the type of aircraft involved. The FTP team member will provide assistance and insight into events leading up to the accident. The FTP member will be responsible for obtaining a copy of the appropriate flight manual, or at least the documentation in use in place of the flight manual if one does not yet exist. Also, any pertinent operating instructions, limitations, specifications, or flight test procedures should be obtained to assist the NTSB in understanding the nature of the test involved.

9.3 Flight Test Engineer (if applicable). If the incident/ accident occurred during a certification flight, an FTE should be included in the Accident Response Team. The FTE will be responsible for obtaining pertinent project data such as the Type Inspection Authorization (TIA) and the flight test cards appropriate to the test which was in progress at the time of the incident/ accident.

The FTE member will provide aircraft performance information to the NTSB, as required. The FTE member will review any test unique aspects of the flight such as sequence of events, configurations, power/ thrust settings, etc. The FTE member will also research previous flights that may have influenced what was flown on the accident flight (build-up, prior related failures, etc).

9.4 Manufacturing Inspection Team Member (if applicable). The Manufacturing Inspection Team member will be preferably selected from the MIDO with cognizance for the test aircraft. The MIDO team member will review pertinent conformity inspections, maintenance records, flight releases, and loading verifications. He/she will also assist in establishing that the various safety/egress items of equipment were installed as required by the TIA.

9.5 Other specialists deemed appropriate.

Record all calls whether or not contact was made. All pertinent records will be secured and brought to a designated area.

In accordance with FAA Order 8020.11, the NTSB is charged with investigating all accidents and incidents involving FAA aircraft or airmen. However, the ART members may be called

upon to support the investigation. Team members will be relieved of all other project work as necessary to support this effort. Reference FAA Order 8020.11 for procedures, responsibilities and limitations of FAA personnel throughout the investigation process.

Transportation may be required for ART members to assist in the investigation as required. Appropriate arrangements will have to be made including travel authorizations, hotel accommodations, rental cars, etc.

10.0 Flight Program Manager (FPM) Responsibilities. The FPM is the focal point in coordinating flight program response to an accident/incident. The FPM must:

10.1 Confirm notification and check status with the originating office and the appropriate chain of command.

10.2 Coordinate accident investigation and response in accordance with the appropriate flight program manual.

10.3 Quarantine flight program participant and aircraft records for the accident/incident.

10.4 Confirm the FPFSO has been notified.

11.0 Procedures. Any ACO / Directorate person receiving the initial notification or first becoming aware of an accident or incident will complete the appropriate checklist at Tab 2. There are three checklists:

- Checklist 1: If at the Scene of the Accident
- Checklist 2: Accident Information
- Checklist 3: Initial Accident Response
- Checklist 4: Applicant / Operator Checklist

These checklists are sequential and instructions for completing each checklist are given at Tab 2. It is important that the person completing a checklist not leave any blank spaces. If no information is available or there is no response to an item, so state. Notify the jurisdictional ROC immediately. Also, notify the Facility Manager or designated acting manager as soon as the situation permits.

11.1 At the Accident Site: Any crewmember involved in an aircraft accident or witnessing an aircraft accident involving AIR crewmembers shall assist in any rescue or first-aid efforts in progress and ensure local authorities have been called to the mishap scene. Be aware that aircraft wreckage sites can be hazardous. You may be exposed to physical hazards posed by such things as hazardous cargo, flammable and toxic fluids, sharp or heavy objects, and disease. It is important to exercise good judgment, utilize available protective devices and clothing, and use extreme caution when working near or in the wreckage. Work with police and fire rescue, and if necessary arrange for on-going security at the site. Complete Checklists 1 and 2 at Tab 2. Obtaining information regarding the condition and location of crewmembers and passengers will assist in expediting emergency notifications. Contact the applicable ROC immediately and the Facility Manager as soon as possible and give all available information.

11.2 Initial Contact: The person receiving the initial notification of an accident or incident will complete Checklist 2 located at Tab 2. This checklist gathers all required information, and will transition the responder to the appropriate follow-on actions in Checklist 3.

It is vital that the person receiving the initial notification verify the accident details and the crew and passengers involved, to ensure the call is not a false alarm. If the caller is a private citizen, call law enforcement or emergency services or the FAA office nearest to the mishap site to have a second source of accident verification. In the event of a major aircraft accident, the Facility Manager should call the police and or fire rescue nearest the site to obtain official information on the injuries to the crewmembers so that this information is known during next-of-kin notification.

The Important Telephone Numbers list at Tab 3 provides important immediate use numbers.

11.3 Subsequent Notification: Ensure that the Facility Manager and the Flight Test Branch Manager (if applicable) are immediately notified of any new information. During the first 48 hours after an accident or incident, a continuous telephone watch will be maintained as directed by the Facility Manager. At the Manager's direction, this watch may use cell phones. Maintain a log of events and actions.

11.4 Release of Information. Do not release any accident or incident information. If the NTSB is in charge of an investigation, they will normally make all press releases. If the FAA is conducting the investigation, the Office of Communications at headquarters or appropriate regional media relations staff will normally make all press releases. Refer all requests for information to the Facility Manager or their designated representative. There is limited information that the Manager can release to the press. In general, this is limited to factual information. However, in the event of the death of, or serious injuries to AIR employees, their names and conditions will not be released until the next of kin have been notified. The Manager shall refer to FAA Order 8020.11, Chapter 9, for further detailed guidance. No release of information will include or suggest:

- Mishap responsibility on the part of any person
- Failure of equipment or facilities or inadequate support services
- Indications of legal liability of the Government or person for the mishap
- Classified information
- Causal factors or recommended corrective actions
- Quotation or paraphrase from any limited use investigation report

A news release should only contain the following information:

- Statement that the accident occurred
- Location and time of accident
- Time and place of aircraft departure and destination
- Biographical information about persons involved only after the next of kin has been notified, and only after a reasonable period has passed so that the next of kin may notify extended family members.

11.5 Next-of-Kin Notification. Next-of-Kin Notification is the responsibility of the Facility Manger and must be accomplished as soon as possible after the extent of injuries or death has been verified. Verifications must be accurate and crosschecked through at least two sources. Time will be a factor in the process as the news media may make the names of the injured or deceased public before next-of-kin notification can be made. Review the FACTS "Emergency Contact Information," for the crewmembers for possible special instructions regarding NOK notification. Notification must take place in person, never by telephone, by a minimum of two ACO / Directorate employees, including the employee's Manager along with at least one additional employee who is close friends of the employee involved and their family. Depending on the extent of the injuries, it may be advisable to have a close friend, other coworkers, relatives, or family clergy accompany you. If the result is injury, the Facility Manager may elect to call the NOK in order to expedite them reaching the victim, rather than waiting for notification in person. Give as much information as you feel is prudent under the circumstances. If it seems appropriate, arrangements should be made for the family to travel to the hospital.

11.6 On-going Support. The Facility Manager will assign a single point of contact to each victim or their family as appropriate. This person should be identified to the family as early as possible after the notification is received and the next of kin has been notified. If possible this individual should be present if next-of-kin notification is required. This person will work with Human Resource Management (AHR) specialists and Region's EAP Program Manager to provide continued support to the victim, next of kin and coworkers.

11.6.1 AHR will provide a benefits specialist to work with employees and/or families with the completion of forms for medical, disability, retirement, and life insurance claims. The benefits staff ensures that all death claims receive special handling. Worker's compensation claims usually process within 45 days and life insurance within 30 days.

11.6.2 Grief counseling can be arranged through the Region's EAP Program Manager (See the Important Telephone Numbers list at Tab 3). The EAP can send a team or person to the accident site. Licensed EAP counselors provide professional counseling services for the victim, family members, and coworkers. The EAP provides short-term assistance and referrals to the appropriate community and health care resources for long-term assistance. The EAP generally provides eight visits; however, it tailors its services to meet the need.

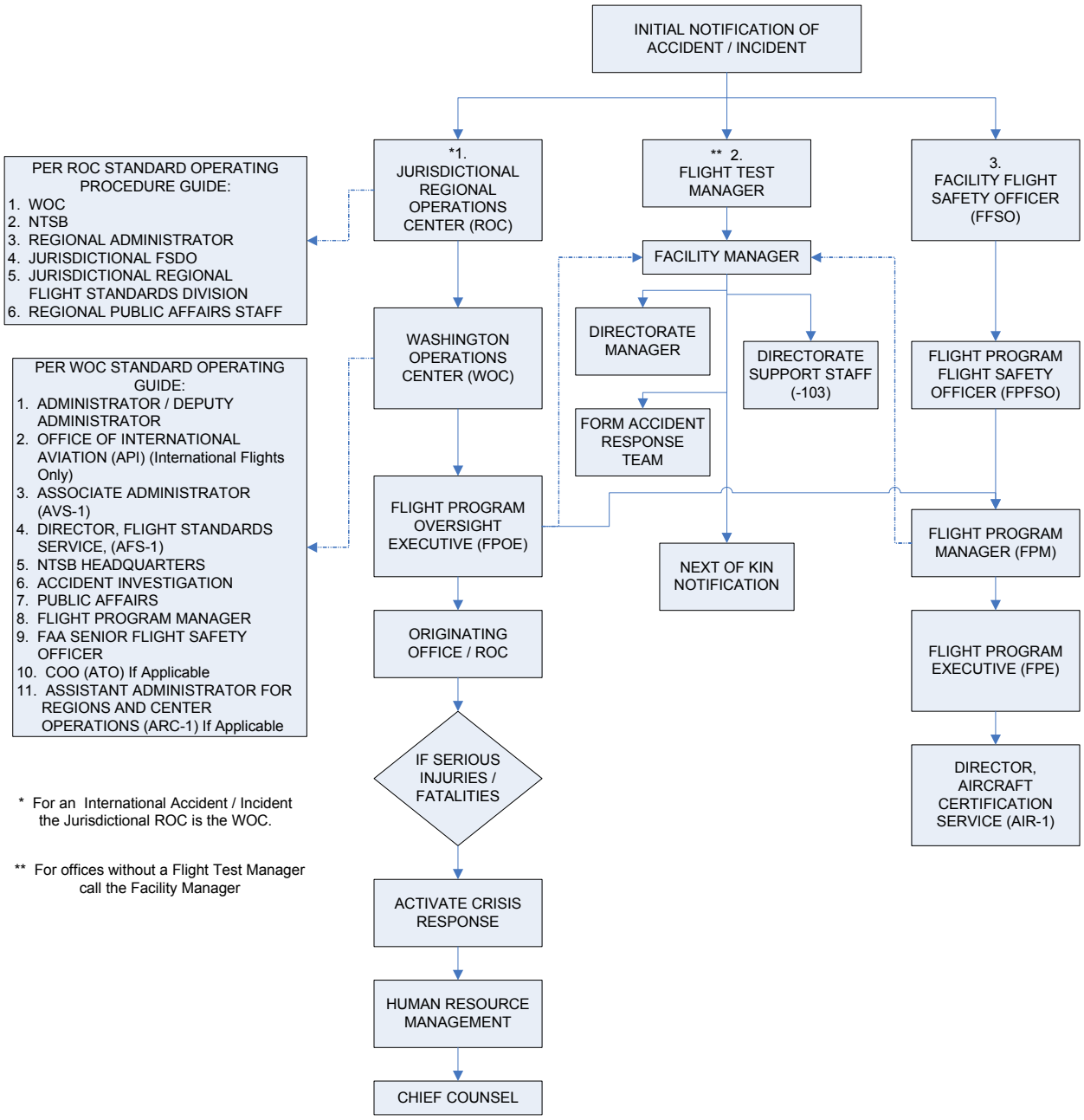
11.6.3 Critical Incident Stress Management (CISM) Program. The CISM is an internal program designed to help employees identify and cope with trauma-related distress associated with the occurrence of an aircraft accident or other disaster. Studies of incidents that result in loss of life or severe physical injuries indicate there may be an adverse residual effect on employees' work-related behavior and sense of personal wellbeing. Rapid initiation of Critical Incident Stress Debriefing (CISD) for affected personnel can eliminate or minimize the duration and severity of the after-effects of trauma. Methods of CISD include peer-to-peer debriefing as an immediate and temporary support system and effective interim effort until professional support services can become involved. FAA Order 3210.5, Critical

Incident Stress Debriefing Program, current edition, describes the FAA EAP CISD Program for all FAA employees and their family members.

11.7 Freedom of Information Act (FOIA). Consider the rights of living relatives and associates of the deceased. The Privacy Act and the privacy exemptions of the FOIA do not protect the privacy of deceased persons. Records about the deceased, however, may be withheld under FOIA or the Privacy Act to protect the privacy of living relatives and associates if the records contain private, personal information about the family or other background of persons still living.

11.8 Foreign Operations. If the accident occurs outside of the U.S., contact the local U.S. Embassy Duty Officer and notify them of the accident, and that there were U.S. citizens and FAA personnel onboard. This notification is in addition to the other response items directed by this SOP. If requested, fax, email, or deliver the completed Accident Information Checklist (Tab 2) to the embassy.

12.0 AIR/Job Task Aircraft Accident/Incident Notification Responsibilities



13.0 Accident Response Binder. The Accident Response Binders shall be updated by the Facility Flight Safety Officer and contain the following information.

Tab 1: Expanded Procedure

Tab 2: Accident/Incident Response Checklists

Tab 3: Important Telephone Numbers

Tab 4: Air Crew Emergency Contact Information (from FACTS) (Facility Manager, Flight Test Branch Manager (if applicable) & Facility Flight Safety Officer ONLY)

Tab 5: Forms

TAB 2
ACCIDENT/INCIDENT RESPONSE CHECKLISTS

Checklist 1: If at the Scene of the Accident

This checklist will be completed by any AIR employee who is at the scene of an aviation accident or incident involving AIR personnel while on FAA official duty. **If NOT at the scene of the accident, go to Checklist 2 on the next page.** (Para. 11.1)

☐ **1. Assist in first aid and rescue efforts.**

Caution. You may be exposed to physical hazards such as hazardous cargo, flammable and toxic fluids, sharp or heavy objects, and disease. Use protective devices and clothing. Use extreme caution when working near or in the wreckage.

☐ **2. Ensure local authorities have been called to the scene.**

☐ **3. Secure a passenger manifest & determine the status and condition of all members of the crew and passengers.**

☐ **4. List the condition and location of all personnel being removed from the scene.**

☐ **5. Work with local police and fire rescue as necessary to arrange on-going site security and preserve aircraft wreckage (49 CFR 830.10).**

- Preserve to the maximum extent possible any aircraft wreckage, cargo, and all records, including all recording mediums such as flight, maintenance, and voice recorders.
- The accident site may not be disturbed or moved except to:
  - Remove persons injured or trapped.
  - Protect the wreckage from further damage.
  - Protect the public from injury.
- If it is necessary to move aircraft wreckage, make notes and photographs of the original positions and condition of the wreckage when possible.
- Retain all records, reports, internal documents, and memoranda dealing with the accident or incident.

☐ **6. Contact the responsible FAA AIR Facility as soon as possible and give all available information listed on Checklist 2.**

Refrain from offering opinions or giving non-essential information to unauthorized sources.

End of Checklist

Proceed to Checklist 2 (Next Page). (page 1 of 1)

Checklist 2: Accident Information

This checklist will be completed by any AIR employee that receives initial notification of an accident or incident. If time and conditions permit, get a flight crew member, to complete this checklist. Fill out the following checklist completely. Do not leave any blank spaces. If there is no response to an item, so indicate.

Use this information to complete the SSE Form and as necessary, assist the ROC with FAA Form 8020-9 and the FAA IIC with FAA Form 8020-23.

Have Local Police/Fire Rescue Been Notified?	Can Caller Direct Police/Fire Rescue to Scene?
Current Date:	Current Time:
Name of Person Providing Information:	Contact Telephone Number:
Contact Address:	
Contact Relationship to Accident/Incident (Eye Witness? Y N):	
Aircraft Type:	Aircraft Registration Number (N#):
Aircraft Color:	Name of Owner:
Name of Aircraft Operator:	Name of Pilot In Command:
Accident/Incident Date:	Accident/Incident Time:
Last Point of Departure:	Point of Intended Landing:
Current Position of Aircraft (Ref. Easily Defined Geographical Point):	

Continued On Next Page **(page 1 of 3)**

Checklist 2: Accident Information (Continued)
Location of Accident/Incident (If Different from Above):
Nature of Accident:
Damage to Aircraft:
Purpose of Flight:
Weather at Place and Time of Accident:
Dangerous Materials On Board? (Explosives, Radioactive, Other)
Other Eye Witnesses? (Name/Telephone Number)
Continued On Next Page **(page 2 of 3)**

Checklist 2: Accident Information (Continued)	
Number of People On Board:	Number of Fatalities:
Number of Seriously Injured:	
People on Board: (Name, Location, Condition)	
Additional Information:	
End of Checklist 2 **Proceed to Checklist 3 (Next Page)**	**(page 3 of 3)**

Checklist 3: Initial Accident Response

This checklist will be completed immediately after gathering the accident information in Checklist 2, preferably by the Facility Flight Safety Officer or a Flight Test Crew Member.

1. Verification. (Para 11.2)

☐ If the caller is a private citizen, call law enforcement or emergency services for verification. (***Verification must be attained from two authoritative sources***.)

2. Determine if the accident or incident is reportable by answering the following Yes/No questions. If uncertain, answer YES and proceed to step 3. (Para. 5.0)

Is this an Aircraft Accident? YES An event associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight and all such persons have disembarked, and in which any person suffers death or serious injury, or in which the aircraft receives substantial damage.

Was there Serious Injury? YES Any injury which requires hospitalization for more than 48 hours, (starting within 7 days of the injury); results in the fracture of any bone (except fingers, toes, or nose); causes severe hemorrhages, nerve, muscle, or tendon damage; involves any internal organ; or involves any second or third degree burn or any burn affecting more the 5 percent of the body.

Was there Substantial Aircraft Damage? YES 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. This does **NOT** include single engine failures, bent fairings, cowlings, dented skin, ground damage to propeller blades, or damage to landing gear, wheels tires, flaps, brakes, or wing tips.

STEP 2 CONTINUED NEXT PAGE

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Checklist 3: Initial Accident Response (Continued)

Is this an Aircraft Incident? YES An occurrence, other than an accident, associated with the operation of an aircraft which adversely affects flight safety and requires immediate notification to the NTSB under 49 CFR part 830. These include:

- Flight control system malfunctions or failures

- Inability of a flight crew member to perform normal duties as a result of injury or illness

- Failure of components of a turbine engine excluding compressor or turbine blades or vanes

- In-flight fire

- Aircraft collision in flight

- Damage to property other than the aircraft estimated to exceed $25,000

- Aircraft is overdue and is believed to have been involved in an accident

- Large Multi-Engine Aircraft only (more 12,500 pounds): In-flight failure of electrical or hydraulic systems, loss of thrust by two or more engines, or aircraft evacuation using an emergency egress system.

- Release of all or a portion of a propeller blade from an aircraft, excluding release caused solely by ground contact;

- A complete loss of information, excluding flickering, from more than 50 percent of an aircraft's cockpit displays known as: (i) Electronic Flight Instrument System (EFIS) displays; (ii) Engine Indication and Crew Alerting System (EICAS) displays; (iii) Electronic Centralized Aircraft Monitor (ECAM) displays; or (iv) Other displays of this type, which generally include a primary flight display (PFD), primary navigation display (PND), and other integrated displays;

- Airborne Collision and Avoidance System (ACAS) resolution advisories issued either: When an aircraft is being operated on an instrument flight rules flight plan and compliance with the advisory is necessary to avert a substantial risk of collision between two or more aircraft; or (ii) To an aircraft operating in class A airspace.

- Damage to helicopter tail or main rotor blades, including ground damage, that requires major repair or replacement of the blade(s);

- Any event in which an operator, when operating an airplane as an air carrier at a public-use airport on land: (i) Lands or departs on a taxiway, incorrect runway, or other area not designed as a runway; or (ii) Experiences a runway incursion that requires the operator or the crew of another aircraft or vehicle to take immediate corrective action to avoid a collision.

☐ **3a. YES. If the answer to ANY of the questions in Step 3 is "Yes" or in doubt, report the accident/incident to the FAA Regional Operations Center (ROC)**.

- Contact the ROC regardless of where the accident or incident occurs. They will notify all appropriate Regional Operations Centers, the Washington Operations Center, FAA Medical, the NTSB, all appropriate FSDO's, and other agencies as required.

☐ **3b. NO. If the answer to ALL of the questions in Step 2 is "No", an accident or incident did not occur, and this checklist ends.**

- Do not contact the ROC or the NTSB. However, a Safety Significant Event (SSE) report should be filed if any of the criteria described in Paragraph 5.5 of this plan are met.

4. Contact the following Personnel (*in the order listed*). Use the Important Telephone Numbers at Tab 3. ***The Regional Operations Center (ROC) is the most important call to make, so make it first.***

☐ Jurisdictional Regional Operations Center (ROC)
☐ Home Regional Operations Center (ROC)
☐ Search and Rescue (if Aircraft is Overdue / Missing)
☐ Flight Test Branch Manager (if applicable)
☐ Facility Manager
☐ Facility Flight Safety Officer

☐ **5. If the accident occurred outside of the U.S., contact the local U.S. Embassy Duty Officer.** (Para. 11.7)

- Notify them of the accident, and that there were U.S. citizens and FAA personnel onboard. If requested, fax, email, or deliver the completed Accident Information Checklist (Tab 2) to the local U.S. embassy. Continue with this checklist.

6. Notify the following AIR Personnel, in order, as appropriate.

- The first person contacted may elect to continue the notification chain or ask that the Facility to continue the notifications. Use the Important Telephone Numbers list at Tab 3. See Section 12.0 of this plan.

☐ Flight Program Flight Safety Officer
☐ Flight Program Manager
☐ FAA Senior Flight Safety Officer
☐ Directorate Manager

Continued On Next Page **(page 2 of 6)**

Checklist 3: Initial Accident Response (Continued)

☐ **7. Release of information** (Para. 11.4)

- **Do NOT release any accident or incident information over the telephone.**
- If the NTSB is conducting the investigation, they will make all press releases.
- If the FAA is conducting the investigation, the appropriate regional public affairs staff or headquarters will make all press releases.
- Contact the Regional Public Affairs Manager (Tab 3) and refer to FAA Order 8020.11A, Chapter 9, for guidance.

☐ **8. Establish Telephone Watch**

- **Do NOT release any accident or incident information over the telephone.**
- During the first 48 hours after an accident or incident, a continuous telephone watch will be maintained as directed by the Facility Manager. At the Manager's direction, this watch may use cell phones.
- Maintain a log of events and actions.
- Ensure that the ACO Manager and Flight Test Branch Manager are immediately notified of any new information.

☐ **9. The Facility Manager or designated representative will form an Accident Response Team.** (Para. 9.0)

- This team will consist of the following personnel:
  - Facility Flight Safety Officer (FFSO) (or Alternate FFSO)
  - Flight Test Pilot
  - Flight Test Engineer (FTE) (as required)
  - Manufacturing Inspection District Office (MIDO) Team Member (as required)
  - Other specialists (as required)
- The Accident Response Team will be lead by the Facility Flight Safety Officer, and will aid in the accomplishment of this response checklist from this step forward and as described in Section 9.0.

Continued On Next Page **(page 3 of 6)**

Checklist 3: Initial Accident Response (Continued)	
☐ **10. Gather Flight Information:**	**Responsible Team Member**
• Accident/Incident weather information. http://adds.aviationweather.gov/metars/ http://adds.aviationweather.gov/tafs/ http://aviationweather.gov/	Test Pilot
• NOTAMs. https://pilotweb.nas.faa.gov/	Test Pilot
• Flight plan	Test Pilot
• Obtain copies of flight test cards, aircraft configuration, aircraft limitations, performance information, and sequence of events (ie. Build-up conditions, prior flights, etc.)	FTE
☐ **11. Secure All Records.**	
• **From this time forward, only the accident team and the NTSB are to have access to accident/incident records.**	
• Secure the Crewmember's Flight Record Folder.	FFSO
• Access the FACTS system to obtain pilot(s) flight activity, year-to-date, and determine the pilot's history in accident/incident model aircraft.	FFSO
• FAA Form 4040-6 for the flight (if a rental aircraft)	Test Pilot
• Obtain TIA, risk assessment documentation, conformity records, flight release, instrument calibrations, and the project file if accident or incident occurred during flight testing.	FTE
• Obtain a copy of the AFM/FCOM/QRH (as applicable) for the aircraft involved.	Test Pilot
☐ **12. Gather Weight and Balance Information.**	
• Secure existing weight and balance information and documentation.	
Continued On Next Page	**(page 4 of 6)**

Checklist 3: Initial Accident Response (Continued)

☐ **14. Reference emergency contact crew data from FACTs as displayed in Tab 4.**

- FACTS data can only be accessed by the Facility Manager, the Flight Test Branch Manager, the Facility Flight Safety Officer or the Facility Flight Program Coordinator (FPC).
- Crewmember Emergency Contact Information can be accessed through the "FACTS" computer program utilizing the following steps: FACTS →SEARCH → CREWMEMBER LOOKUP → enter NAME → SUBMIT →retrieve crewmember NUMBER → DATA ENTRY→ EMERGENCY CONTACT INFORMATION→enter crewmember NUMBER→SUBMIT →retrieve crewmember emergency contact information. Repeat these steps for each crewmember.

☐ **15. Notify Next of Kin (if required).** (Para. 11.5)

Caution: Next-of-Kin Notification is the responsibility of the Facility Manger and must only be accomplished after the extent of injuries or death has been verified.

- This task must be completed as soon as possible after the extent of injuries or death has been verified.
- Verify the identities of all crew members involved. This information must be accurate and crosschecked through at least two sources.
- Time will be a factor in the process as the news media may make the names of the injured or deceased public before next-of-kin notification can be made.
- Notification must take place in person, never by telephone, by a minimum of two ACO / Directorate employees, including the employee's Manager along with at least one additional employee who is close friends of the employee involved and their family.
- Reference the "Remarks / N-O-K Notification Special Instructions" section of the crewmembers emergency contact information form for their preferences.
- Depending on the extent of the injuries, it may be advisable to have a close friend, other coworkers, relatives, or family clergy accompany you. Give as much information as you feel is prudent under the circumstances.

Continued On Next Page **(page 5 of 6)**

Checklist 3: Initial Accident Response (Continued)

☐ **16. Designate Family Liaison(s).** (Para. 11.6)

- The Facility Manager will assign a single point of contact to each victim or their family as appropriate.
- This person should be identified to the family as early as possible after the notification is received and the next of kin has been notified. If possible this individual should be present if next-of-kin notification is required.
- Maintain ongoing contact with victims and their families to proved updates on the progress of the investigation and related matters.
- This person will work with Human Resource Management specialists to ensure that all medical, disability, life insurance, and disability claims are processed promptly.
- Contact the Directorate -103 Manager of Administrative Support Staff for further assistance (Tab 3).

☐ **17. Facility Manager Additional Contact Responsibilities:**

- If applicable, notify the Office of Governmental Affairs with the necessary information on Congressional passengers to facilitate interaction with appropriate Congressional officials.
- Notify the National Military Command Center (NMCC) at the Pentagon at 703-695-0100 to provide for next-of-kin notification if a death or injury involves DOD personnel.
- If applicable, notify the Office of International Aviation (API) with the necessary information on foreign passengers to facilitate interaction with appropriate foreign government officials, or of an FAA aircraft accident or incident occurring in a foreign country
- **Ensure notification to all flight program participants and employees in the affected organization of the accident/incident.**

☐ **18. The Facility Manager or designated representative will:**

- Ensure the AIR Safety Significant Event (SSE) Report is completed.
- Verify NTSB Form 6120.1 is submitted to the NTSB within 10 days after an accident or within 7 days if an overdue aircraft is still missing.
- Verify a report on the incident is submitted to the NTSB if requested by an authorized representative of the Board.

End of Checklist **(page 6 of 6)**

Checklist 4: Applicant / Operator Checklist

This checklist and appropriate attachments should be discussed and left with the applicant prior to any flight where there are no other FAA personnel on the ground.

IF AN ACCIDENT SHOULD OCCUR AND THE FAA CREWMEMBERS ARE INCAPACITATED, PLEASE TAKE THE FOLLOWING STEPS:

1. **Determine the status, condition and location of all FAA Crewmembers.**
2. **Fill out "Checklist 2: Accident Information" to the best of your ability.**
3. **If within the U.S., call the appropriate Regional Operations Center (See Tab 3):**
   (A) Dictate/Fax/Email the data from Checklist 2.
   (B) Notify them that FAA personnel were on board.
   (C) Request that they contact the ACO and/or Directorate Manager(s) and notify them of the accident.
4. **Notify the Facility Manager. Use the Important Telephone Numbers at Tab 3. The Regional Operations Center (ROC) is the most important call to make, so make it first.**
5. **If outside the U.S., call the appropriate U.S. Embassy (See Tab 3):**
   (A) Dictate/Fax/Email the data from Checklist 2.
   (B) Notify them that U.S. Citizens (FAA personnel) were on board.

End of Checklist **(page 1 of 1)**

TAB 3
IMPORTANT TELEPHONE NUMBERS

Name / Office / Title	Title	Office Number	Cell Number	Home Number
Checklist 3, Step 1				
ROC	Regional Operations Center (ROC)		----	----
	Flight Test Branch Manager			
	Facility Manager			
	Facility Flight Safety Officer			
	Alternate Facility Flight Safety Officer			
Checklist 3, Step 6				
Eric Kinney / ASW-150 / Flight Test Pilot	Flight Program Flight Safety Officer	817-222-5459	210-383-1331	817-306-0376
	Alternate Flight Program Flight Safety Officer			
Jim Richmond / ASW-102	Flight Program Manager	817-222-5351	949-872-1013	---
David Morton / AFS-407 (acting)	FAA Senior Flight Safety Officer			
	Directorate Manager			
	Assistant Directorate Mgr			
Checklist 3, Step 7				
	Regional Public Affairs Manager		---	---
Checklist 3, Step 16				
	-103 Manager Tech & Admin. Support Staff		---	---
Checklist 3, Step 17				
Roderick Hall, AGI-1, Assistant Administrator	Office of Governmental Affairs	202-267-3277	---	---
---	National Military Command Center (NMCC)	703-695-0100	---	---
Carey Fagan, API-1, Executive Director	Office of International Affairs (API)	202-385-8900	---	---
Other Numbers				
Safety Hotline	---	866-230-3679	---	---
Search & Rescue	Lockheed Flight Services	800-992-7433	---	---
	Regional EAP Program Mgr			
	MIDO Manager			
	COS Specialist			

TAB 3
IMPORTANT TELEPHONE NUMBERS

Name / Office / Title	Title	Office Number
Checklist 3, Step 1		
ROC	Regional Operations Center (ROC)	
	Flight Test Branch Manager	
	Facility Manager	
	Facility Flight Safety Officer	
	Alternate Facility Flight Safety Officer	
Checklist 3, Step 6		
Eric Kinney / ASW-150 / Flight Test Pilot	Flight Program Flight Safety Officer	817-222-5459
	Alternate Flight Program Flight Safety Officer	
Jim Richmond / ASW-102	Flight Program Manager	817-222-5351
David Morton / AFS-407 (acting)	FAA Senior Flight Safety Officer	
	Directorate Manager	
	Assistant Directorate Mgr	
Checklist 3, Step 7		
	Regional Public Affairs Manager	
Checklist 3, Step 16		
	-103 Manager Tech & Admin. Support Staff	
Checklist 3, Step 17		
Roderick Hall, AGI-1, Assistant Administrator	Office of Governmental Affairs	202-267-3277
---	National Military Command Center (NMCC)	703-695-0100
Carey Fagan, API-1, Executive Director	Office of International Affairs (API)	202-385-8900
Other Numbers		
Safety Hotline	---	866-230-3679
Search & Rescue	Lockheed Flight Services	800-992-7433
	Regional EAP Program Mgr	
	MIDO Manager	
	COS Specialist	

OPERATIONS CENTERS CONTACT NUMBERS

REGION	TELEPHONE NUMBER
Alaskan	907-271-5963
Northwest Mountain	425-227-1999
Western Pacific	310-725-3300
Great Lakes	847-294-8400
Central	816-329-3000
Aeronautical Center Oklahoma City	405-954-3583
Southwest	817-222-5006
New England	781-238-7001
Eastern	718-553-3100
FAA Headquarters (WOC)	202-267-3333
Southern	404-305-5180

EMBASSY PHONE NUMBER LIST

Country	Embassy City	Emergency Contact Number
Argentina	Buenos Aires	-[54] (11) 5777-4533
Australia	Canberra	-[61] (2) 6214-5600
	Melbourne	-[61] (03) 9526-5900
	Sydney	-[61] (2) 9373-9200
Austria	Vienna	-[43] (1) 31339
Brazil	Sao Paulo	-[55] (11) 3081-6511
Canada	Vancouver, British Columbia	(604) 685-4311
China	Beijing	-[86] (10) 6532-3831
	Shenyang	-[86] (24) 2322-0848
Czech Republic	Prague	-[420] (2) 5753-0663
France	Paris	-[33] (1) 4312-2222
	Bordeaux	-[33] (5) 5648-6380
Germany	Berlin	-[49] (30) 238-5174
	Frankfurt	-[49] (69) 7535-0
	Munich	-[49] (89) 2888-0
Italy	Rome	-[39] (06) 46741
	Naples	-[39] (081) 583-8111
Japan	Tokyo	-[81] (3) 3224-5000
Malaysia	Kuala Lumpur	-[60] (3) 2168-5000
New Zealand	Auckland	-[64] (9) 303-2724
Poland	Warsaw	-[48] (22) 628-3041
	Krakow	-[48] (12) 424-5100
Russia	Moscow	-[7] (095) 728-5000
South Korea	Seoul	-[82] (2) 397-4114
Spain	Madrid	-[34] 91587-2200
Switzerland	Bern	-[41] (31) 357-7011
United Kingdom	London, England	-[44] (20) 7499-9000

NTSB FIELD OFFICE LISTING

Northeast Regional Office *8:00 am - 4:30 pm (ET)*	2001 Route 46 Suite 504 Parsippany, New Jersey 07054	Phone: 973-334-6420 FAX: 973-334-6759	Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont
Mid-Atlantic Regional Office *8:00 am - 4:30 pm (ET)*	490 L'Enfant Plazza, S.W. Washington, D.C. 20594	Phone: 202-314-6320 FAX: 202-314-6329	Delaware, District of Columbia, Kentucky, Maryland, Virginia, West Virginia
Southern Regional 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	Alabama, Georgia, North Carolina, South Carolina, Tennessee
Southeast Regional Office *7:30 am - 4:00 pm (ET)*	8405 N.W. 53rd Street Suite B-103 Miami, Florida 33166	Phone: 305-597-4610 FAX: 305-597-4614	Florida, Mississippi, Puerto Rico, Virgin Islands
North Central Regional 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	Indiana, Illinois, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, Wisconsin
Central Mountain Regional Office *7:30 am - 4:00 pm (MT)*	4760 Oakland Street Suite 500 Denver, Colorado 80239	Phone: 303-373-3500 FAX: 303-373-3507	Colorado, Utah, Wyoming
South Central Regional 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	Arkansas, Louisiana, New Mexico, Oklahoma, Texas
Northwest Regional 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	Idaho, Montana, Oregon, Washington
Southwest Regional 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	Arizona, California, Hawaii, Nevada, Pacific Islands in the U.S. Trust Territories
Alaska Regional Office *7:30 am - 4:00 pm (AT)*	222 West 7th Avenue Room 216, Box 11 Anchorage, Alaska 99513	Phone: 907-271-5001 FAX: 907-271-3007	Alaska

TAB 4
FAA (OTHER) CREW MEMBER NOTIFICATION FORMS

Step 2 below is only to be completed for the Facility Manager, the Flight Test Branch Manager (if applicable), and the Facility Flight Safety Officer.

This Tab contains personal information that must be adequately protected.

☐ **1. AIR personnel who do not have information in FACTS must verify with their management that complete emergency contact information is on file at their respective office before flying on official duty.**

For rental flights the passenger manifest portion on the back of FAA Form 4040-6 must be completed prior to flight and kept on file at the local ACO/Directorate until the flight is complete.

☐ **2. Insert current print outs of emergency contact information from FACTS in this tab for all FACTS accountable crew members.**

FACTS data can only be accessed by the Facility Manager, the Flight Test Branch Manager, the Facility Flight Safety Officer or the Facility Flight Program Coordinator.

The Emergency Contact Information will be printed from FACTS and verified during the Facility's Internal Evaluation Program (IEP) exercise annually.

TAB 5
FORMS

This Tab contains pdf fillable forms to be used throughout the response plan process.

AIR Safety Significant Event Report

Part 1	1. Date:	2. Time: Local ☐ GMT ☐	3. Location:
4. Purpose of Test:			5. Office:
6. A/C Category:		7. A/C Type:	

8. Check if also an:
☐ Accident (serious injury or substantial damage)
☐ Incident (affects or could affect the safety of operations. See FAR Part 830)

If one of the above is checked, who was it reported to:

9. Personnel onboard and any injuries:

10. Synopsis of Event:

11. Safety Area of Concern:
☐ Not Applicable
☐ Infant Mortality
☐ Lack of Confirmation of Applicant's Test Performance
☐ Pretest Airworthiness Inspection Criteria
☐ Runway Environment / Obstructions
☐ Training / Proficiency

12. Name of Submitter:	Phone:	Email:

13. Attachments:

Part 2 (complete with Part 1 if known)

14. Description of prior testing:
a) Company testing and results:
b) Build-up to event condition:

15. Risk Management Process:
a) Implementation and effectiveness:
b) Adequacy of mitigation procedures:

16. Contributing factors (leave blank if not applicable):
a) Weather:
b) Training & pilot proficiency (FAA & Company):
c) Adequacy of instrumentation/TM:
d) CRM considerations:
e) Adequacy of program management:
f) Conformity issues:
g) Other:

17. Lessons Learned:

18. Recommendations (optional):

NATIONAL TRANSPORTATION SAFETY BOARD
NTSB Form 6120.1
PILOT/OPERATOR AIRCRAFT ACCIDENT/INCIDENT REPORT

The pilot/operator aircraft accident/incident report may be filed by mailing in this form, per instructions on the last page. Copies of this form may be obtained from the NTSB Web site <http://www.ntsb.gov>, the National Transportation Safety Board Regional Offices, and the Federal Aviation Administration Flight Standards District Offices.

Rules pertaining to aircraft accidents/incidents, overdue aircraft, and safety issues are contained in Part 830 of the National Transportation Safety Board's Regulations, 49CFR. These rules state the authority of the Board, define accidents, incidents, injuries, and other terms, and provide procedures for initial and immediate notification by aircraft pilots/operators.

A. APPLICABILITY

The pilot/operator of an aircraft shall file a report with the Regional Office of the National Transportation Safety Board nearest the accident or incident for which immediate notification is required by section 830.5(a). **The report shall be filed within ten (10) days after an accident for which notification is required by Section 830.5 or when, after seven (7) days, an overdue aircraft is still missing.** An aircraft accident, as defined in 49CFR 830.2, is determined as an occurrence that involves a fatality, serious injury, or substantial damage. For occurrences that do not involve a fatality, the determination that the occurrence is an accident can be appealed by writing to the Director, Office of Aviation Safety, National Transportation Safety Board, 490 L'Enfant Plaza, S.W., Washington, D.C. 20594.

The Pilot/Operator Aircraft Accident/Incident Report Form is used in determining the facts, conditions, and circumstances for aircraft accident prevention activities and for statistical purposes. It is necessary that **ALL** questions be answered completely and accurately to serve the above purposes.

B. DEFINITIONS

1. "Aircraft Accident" means an occurrence associated with the operation of an aircraft that takes place between the time any person boards the aircraft with the intention of flight and all such persons have disembarked, and in which any person suffers death, or serious injury, or in which the aircraft receives substantial damage. For purposes of this form, the definition of “aircraft accident” includes “unmanned aircraft accident,” as defined at 49 C.F.R. 830.2.

2. "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. NOTE: Engine failure or damage limited to an engine if only one engine fails or is damaged, bent fairing or cowling, dented skin, small puncture holes in the skin or fabric, ground damage to rotor or propeller blades, and damage to landing gear, wheels, tires, flaps, engine accessories, brakes, or wing tips are not considered "substantial damage" for purposes of this report.

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

4. "Fatal Injury" means any injury that results in death within thirty (30) days of the accident.

5. "Serious Injury" means any injury that (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 fracture of fingers, toes, or nose); (3) causes severe hemorrhages, nerve, muscle, or tendon damage; (4) involves injury to any internal organ; or (5) involves second- or third-degree burns, or any burns affecting more than 5 percent of the body surface.

INSTRUCTIONS TO PILOTS/OPERATORS FOR COMPLETING THIS FORM
It is necessary that ALL questions on this report be answered completely and accurately.
If more space is needed, continue on a blank sheet.

Nearest City/Place: Use the name of the nearest community that has a Post Office in the state where the accident/incident occurred.

Date & Time: Indicate the date and local time of the event. Be sure to indicate the time zone.

Phase of Operation: Indicate the phase of operation during which the accident/incident occurred.

Aircraft Information: Enter aircraft make and model information as indicated on the aircraft registration certificate, including series. If the involved aircraft is certified as "amateur-built," include the name of manufacturer of the kit or plans when appropriate.

Max Gross Weight: Enter the certificated max gross weight for the aircraft involved in the occurrence. This should be the same as the maximum gross weight indicated on the aircraft weight and balance documents.

Airworthiness Certificate: For light sport aircraft, if aircraft certificated as "Light Sport - Experimental", check both the "Light Sport" and "Experimental" check boxes.

Type of Fire Extinguishing System: If a fire extinguishing system was used to fight an aircraft fire, specify the type(s) of extinguishing system(s) used. Examples include handheld extinguisher, engine fire bottle, cargo/baggage compartment fire suppression system, or airport emergency ground equipment.

Engine: Enter engine make and model information as indicated on the engine data plate.

Owner/Operator Information: Enter the owner information as shown on the registration certificate. Commercial operators, enter the operator information, including "Doing Business as" when applicable, as shown on the operator certificate.

Revenue Sightseeing Flight: Indicate whether the accident aircraft was conducting **revenue** sightseeing operations under FAR Part 91 at the time of the accident.

Public Use: Federal, state or local government flight operations such as official travel, law-enforcement, low-level observation, aerial application, firefighting, search and rescue, biological or geological resource management, or aeronautical research. Military operations should not be included under public use. If public use, also indicate whether the flight was conducted by Federal, State, or Local government.

Air Medical Flight: Indicate whether accident flight was being conducted for the purpose of carrying medical personnel, patient(s), or organs.

Purpose of Flight (FAR 91, 103, 133, 137): Indicate the type of operation that was being conducted at the time of the occurrence using the following definitions:

PERSONAL—Flying for personal reasons (excludes business transportation) including pleasure or personal transportation. This also includes practice or proficiency flights performed under flight instructor supervision and not part of an approved flight training program.

BUSINESS—Includes all personal flying **without** a paid, professional crew for reasons associated with furthering a business, including transportation to and from business meetings or work. This does not include corporate/executive operations, air taxi, or commuter operations.

EXECUTIVE/CORPORATE—Company flying **with** a paid, professional crew.

OTHER WORK USE—Miscellaneous flight operations conducted for compensation or hire such as construction work (not FAR Part 135 operation), parachuting, aerial advertising, towing gliders, etc.

INSTRUCTIONAL—Flying while under the supervision of a flight instructor or receiving air carrier training. Personal proficiency flight operations and personal flight reviews, as required by federal air regulations, are excluded.

FERRY—Non-revenue flight under a special flight or "ferry" permit. Refer to 14 CFR 21.197 for details of special flight permit issuance.

POSITIONING—Non-revenue flight conducted for the primary purpose of moving the aircraft to a maintenance facility or to load passengers or cargo, etc.

AERIAL APPLICATION—Operations using an aircraft to perform aerial application or dispersion of any substance. Examples include agricultural, health, forestry, cloud seeding, firefighting, insect control, etc.

AERIAL OBSERVATION—Aerial mapping/photography, patrol, search and rescue, hunting, highway traffic advisory, ranching, surveillance, oil and mineral exploration, criminal pursuit, fish spotting, etc.

AIR DROP—Aerial operations, other than aerial application, that are intended to release items in flight.

AIR RACE/SHOW—Includes any flight operations conducted as part of an organized air race or public demonstration.

FLIGHT TEST—Flight for the purpose of investigating the flight characteristics of an aircraft/aircraft component, or evaluating an applicant for a pilot certificate or rating.

PUBLIC USE—See definition above.

UNKNOWN—Use only if the primary purpose of flight is not known.

Other Aircraft – Collision: For all accidents involving a collision with another aircraft, including parked aircraft, check "Collision with other aircraft" under Basic Information and complete this section indicating details about the OTHER aircraft involved in the collision.

Airport Information: Complete this section if the accident/incident occurred on approach, takeoff, or within 3 miles of an airport. Please refer to the FAA Airport/Facility Directory or other official source for airport information.

Airport Identification: Provide the official 3 or 4 character airport identifier.

Runway: Indicate the number of the runway used, including L, R, or C if applicable.

Runway/Landing Surface: Indicate the type of intended runway/landing surface (do not indicate surface conditions). If the surface type was mixed, check all that apply.

Condition of Runway/Landing Surface: Indicate the condition of the intended runway/landing surface. If multiple conditions existed at the time of the accident, check all that apply.

Weather Information at the Accident/Incident Site: Indicate the weather conditions reported at the accident/incident site at the time of occurrence. If no weather reporting was available for the accident/incident site, indicate the reported conditions at the nearest reporting site. Specify the weather reporting site identifier, the observation time, and distance from the accident/incident site.

Sky/Lowest Cloud Condition: Indicate the height above ground level of the lowest cloud condition present at the time of the accident and whether coverage was reported as few, scattered, broken or overcast. Also indicate the height above ground level and coverage of the lowest cloud ceiling present at the time of the accident (reported as broken or overcast).

NOTAMs ((D), (L) and FDC), AIRMETs, SIGMETs, PIREPs: Describe all NOTAMs, AIRMETs, SIGMETs, PIREPs in effect near the accident/incident. For NOTAMs, state if they were distant (D), local (L), or Flight Data Center (FDC), if known.

Pilot Information: Indicate the category that best describes the capacity served by this flight crewmember at the time of the accident. The designators "Pilot A" and "Pilot B" do not refer to a specific pilot position or responsibility. If more than one pilot is aboard, they may be entered in any order and their capacity entered as appropriate.

Degree of Injury: See Definitions on the top half of Page 1 of the Instructions. Minor injury is not defined. If an injury does not meet the criteria for another injury category, select Minor.

Date of Last Flight Review or Equivalent: Enter the date of the most recent flight review, or equivalent, completed by this pilot. Refer to 14 CFR 61.56 for accepted equivalents.

Type Ratings: List all type ratings on the pilot certificate. If the pilot holds no type ratings indicate "none". If the pilot holds a pilot certificate other than student, and was flying an aircraft requiring an endorsement enter the type and date of any logbook endorsement(s) for that aircraft. See 14 CFR 61 for examples of required endorsements.

Student Endorsements: If the pilot holds a student pilot certificate, enter all solo endorsements and dates on the student pilot certificate.

Flight Time: Complete the flight time matrix. Solo flight time should be included as "Pilot-in-Command (PIC)" and all dual flight instruction given should be included as "Time as Instructor".

Additional Flight Crew Members: Complete this section if there were more than two required flight crew members on the aircraft. This also includes a check airman performing official duties, but does not include cabin crew. State the capacity served by each included crewmember at the time of the accident.

Passenger(s)/Other Personnel: Please enter identification and injury severity information for all passengers and other personnel involved in the accident. See page 1 of the instructions for the official definition of injury levels. Occupants are considered "Revenue" passengers if they were being carried for compensation or hire. The option "FAA" refers to any FAA personnel performing a flight related function, including flight check, airman practical test, etc.

Several questions throughout the form allow for multiple responses; when appropriate choose all responses that apply.

These instructions only pertain to major issue areas covered by the NTSB Form 6120.1 *Pilot/Operator Aircraft Accident/Incident Report*. For additional definitions of questions and responses, please refer to <http://www.ntsb.gov>.

NATIONAL TRANSPORTATION SAFETY BOARD
PILOT/OPERATOR AIRCRAFT ACCIDENT/INCIDENT REPORT
This form to be used for reporting civil and public use aircraft accidents and incidents

BASIC INFORMATION

Accident/Incident Location

Nearest City/Place: _____ State: _____

ZIP: _____ Country: _____

Latitude: _____ (dd:mm:ss N/S) Longitude: _____ (ddd:mm:ss E/W)

Date/Time

Date: _____ Local Time: _____
mm/dd/yyyy

Time Zone: _____

Phase of Operation

☐ Standing ☐ Takeoff (incl. initial climb) ☐ Cruise ☐ Hover
☐ Taxi ☐ Climb ☐ Maneuvering ☐ Other
☐ Descent ☐ Landing ☐ Approach ☐ Unknown

Collision with Other Aircraft

☐ Midair
☐ On-ground
☐ None

Altitude of In-Flight Occurrence

_____ ft MSL

AIRCRAFT INFORMATION

Manufacturer: _____

Model: _____

Serial Number: _____

Registration Number: _____ **Amateur-built:** ☐ Yes ☐ No

Max Gross Weight: _____ lbs

Weight at Time of Accident/Incident: _____ lbs

Location of Center of Gravity at Time of Accident/Incident:

_____ inches from ☐ nose or ☐ datum
-or- _____ Percent Mean Aerodynamic Cord (% MAC)

Category of Aircraft

☐ Airplane
☐ Balloon
☐ Blimp/Dirigible
☐ Glider
☐ Gyrocraft
☐ Helicopter
☐ Powered lift
☐ Ultralight
☐ Unknown

Type of Airworthiness Certificate
(Check all that apply)

Standard
☐ Normal
☐ Utility
☐ Acrobatic
☐ Transport

Special
☐ Restricted
☐ Limited
☐ Provisional
☐ Experimental
☐ Special Flight
☐ Light Sport

Number of Seats: _____

If Large Aircraft, how many seats for:

Flight Crew: _____
Cabin Crew: _____
Passengers: _____

Landing Gear ☐ Retractable

Check any additional landing gear configuration that applies:

☐ Tricycle ☐ Tailwheel

☐ Amphibian ☐ High Skid
☐ Emergency Float ☐ Skid
☐ Float ☐ Ski
☐ Hull ☐ Ski/Wheel
☐ Unknown

Type of Maintenance Program

☐ Annual
☐ Conditional (Amateur-built only)
☐ Manufacturer's Inspection Program
☐ Other Approved Inspection Program (AAIP)
☐ Continuous Airworthiness
☐ Other, specify: _____

Last Inspection Type

☐ 100 Hour ☐ Continuous Airworthiness
☐ AAIP ☐ Conditional Inspection
☐ Annual ☐ Unknown

Date Last Inspection: _____
mm/dd/yyyy

Airframe Total Time: _____ hrs
hours measured at *(check one)*
☐ Last Inspection ☐ Time of Accident/Incident

IFR Equipped

☐ Yes ☐ No ☐ Unknown

Stall Warning System Installed

☐ Yes ☐ No ☐ Unknown

Type of Fire Extinguishing System

☐ None
☐ Specify _____

ELT Installed ☐ Yes ☐ No **ELT Activated** ☐ Yes ☐ No

ELT Aided in Locating Accident/Incident

☐ Yes ☐ No

ELT Manufacturer: _____

Model/Series: _____

Serial Number: _____

Battery Type: _____ **Battery Exp. Date:** _____

Engine Type

☐ Reciprocating ☐ Turbo Jet
☐ Turbo Shaft ☐ Turbo Fan
☐ Turbo Prop ☐ Unknown

Reciprocating Fuel System Type

☐ Carburetor
☐ Fuel Injected

Propeller

☐ Fixed Pitch
☐ Controllable Pitch

Manufacturer: _____
Model: _____

Engine	Engine Manufacturer	Engine Model/Series	Manufacturer's Serial Number	Date of Mfg. *mm/dd/yyyy*	Engine Rated Power Measured as *(check one)* ☐ Horsepower or ☐ lbs of Thrust	Total Time (hours)	Time Since Inspection (hours)	Time Since Overhaul (hours)
Eng. 1								
Eng. 2								
Eng. 3								
Eng. 4								

OWNER/OPERATOR INFORMATION

Registered Aircraft Owner

Name: _____

Fractional Ownership Aircraft: ☐ Yes ☐ No

Owner Address

City: _____
State: _____ ZIP: _____
Country: _____

Operator of Aircraft ☐ Same As Registered Owner

Name: _____
Doing Business As: _____
Air Carrier/Operator Designator (4 Character Code): _____

Operator Address ☐ Same As Registered Owner

City: _____
State: _____ ZIP: _____
Country: _____

Regulation Flight Conducted Under

☐ FAR 91 ☐ FAR 103 ☐ FAR 121 ☐ FAR 125
☐ FAR 129 ☐ FAR 133 ☐ FAR 135 ☐ FAR 137
☐ FAR 91 Special Flight ☐ Non-US, Commercial ☐ Non-US, Non-commercial ☐ Armed Forces
☐ Public Use (select type) ☐ *Federal* ☐ *State* ☐ *Local*
☐ Unknown

Revenue Sightseeing Flight

☐ Yes ☐ No

Air Medical Flight

☐ Yes ☐ No

Purpose of Flight
for FAR 91, 103, 133, 137 *(Select one)*

☐ Personal
☐ Business
☐ Executive/Corporate
☐ Other Work Use
☐ Instructional
☐ Ferry
☐ Positioning
☐ Aerial Application
☐ Aerial Observation
☐ Air Drop
☐ Air Race / Show
☐ Flight Test
☐ Public Use
☐ Unknown

Revenue Operation
for FAR 121, 125, 129, 135 *(Select one)*

☐ Scheduled or Commuter
☐ Non-Scheduled or Air Taxi

Domestic or International

☐ Domestic ☐ International

Cargo Operation

☐ Passenger/Cargo
☐ Passenger _____How many?
☐ Cargo _____ lbs
☐ Mail

Type of Commercial Operating Certificate Held
(Check all that apply)

☐ None
☐ Flag Carrier Operating Certificate (121)
☐ Supplemental
☐ Air Cargo
☐ Foreign Air Carriers (129)
☐ Commuter Air Carrier (135)
☐ On-Demand Air Taxi (135)
☐ Large Helicopter (127)
☐ Rotorcraft External Load (133)
- or -
☐ Agricultural Aircraft (137)
☐ Other Operator of Large Aircraft

OTHER AIRCRAFT – COLLISION (If air or ground collision occurred, complete this section for *other* aircraft)

Aircraft Registration Number

_____

Manufacturer: _____
Model: _____

Damage to Other Aircraft

☐ Destroyed ☐ Minor
☐ Substantial ☐ None

Registered Owner of Other Aircraft

First Name: _____
Middle Initial: _____
Last Name: _____

City: _____
State: _____ ZIP: _____
Country: _____

Pilot of Other Aircraft

First Name: _____
Middle Initial: _____
Last Name: _____

City: _____
State: _____ ZIP: _____
Country: _____

MECHANICAL MALFUNCTION/FAILURE (If more space is needed, continue on separate sheet)

Was there Mechanical Malfunction/Failure? ☐ Yes ☐ No ☐ Unknown
(If yes, list the name of the part, manufacturer, part no., serial no., and describe the failure.)

Total Time/Cycles On Part

_____ Hours

_____ Cycles

Time Since This Part Inspected/Overhauled

_____ Hours

DAMAGE TO AIRCRAFT AND OTHER PROPERTY

Aircraft Damage

☐ None ☐ Substantial
☐ Minor ☐ Destroyed

Aircraft Fire

☐ None ☐ Both Ground and In-Flight
☐ In-Flight ☐ Unknown Origin
☐ On-Ground

Aircraft Explosion

☐ None ☐ Both Ground and In-Flight
☐ In-Flight ☐ Unknown Origin
☐ On-Ground

Description of Damage to Aircraft and Other Property *(use additional sheet if necessary)*

AIRPORT INFORMATION (If the accident/incident occurred on approach, takeoff or within 3 miles of an airport, complete this section)

Airport Identifier: _____ **Distance From Airport Center:** _____SM

Airport Name: _____ **Direction From Airport:** _____ degrees MAG

Proximity to Airport ☐ Off Airport/Airstrip ☐ On Airport ☐ On Airstrip **Airport Elevation:** _____ ft. MSL

Approach Segment *(Select one)*

☐ On Instrument Approach ☐ Landing ☐ Base leg ☐ Final ☐ Go Around
☐ Crosswind ☐ Downwind ☐ Low Approach ☐ Aborted Landing (after touchdown)

IFR Approach *(Check all that apply)*

☐ None ☐ PAR ☐ MLS ☐ Practice
☐ ADF/NDB ☐ Sidestep ☐ LDA ☐ GPS
☐ SDF ☐ ILS ☐ ASR ☐ Loran
☐ VOR/TVOR ☐ Localizer Only ☐ Visual ☐ Unknown
☐ VOR/DME ☐ LOC-back course ☐ Contact
☐ TACAN ☐ RNAV ☐ Circling

VFR Approach *(Check all that apply)*

☐ None ☐ Stop and Go
☐ Traffic Pattern ☐ Touch and Go
☐ Straight-In ☐ Simulated Forced Landing
☐ Valley/Terrain Following ☐ Forced Landing
☐ Go Around ☐ Precautionary Landing
☐ Full Stop ☐ Unknown

Runway Information

Runway ID: _____(L/R/C) Length: _____ft Width: _____ft

Runway/Landing Surface *(Check all that apply)*

☐ Asphalt ☐ Grass/Turf ☐ Macadam ☐ Water
☐ Concrete ☐ Gravel ☐ Metal/Wood ☐ Unknown
☐ Dirt ☐ Ice ☐ Snow

Condition of Runway/Landing Surface *(Check all that apply)*

☐ Dry ☐ Snow-Compacted ☐ Water-Calm
☐ Holes ☐ Snow-Crusted ☐ Water-Choppy
☐ Ice Covered ☐ Snow-Dry ☐ Water-Glassy
☐ Rough ☐ Snow-Wet ☐ Wet
☐ Rubber Deposits ☐ Soft ☐ Unknown
☐ Slush Covered ☐ Vegetation

FLIGHT ITINERARY INFORMATION

Last Departure Point

Airport ID: _____
City: _____
State: _____
Country: _____

Time of Departure

Time: _____
Time Zone:_____

Destination

Airport ID: _____
City: _____
State: _____
Country: _____

Type Flight Plan Filed

☐ None ☐ VFR/IFR
☐ Company VFR ☐ IFR
☐ Military VFR ☐ Unknown
☐ VFR

Activated? ☐ Yes ☐ No

Type of ATC Clearance/Service *(Check all that apply)*

☐ None ☐ Special VFR ☐ Special IFR ☐ VFR Flight Following ☐ Cruise
☐ VFR ☐ IFR ☐ VFR On Top ☐ Traffic Advisory ☐ Unknown / NA

Airspace where the accident/incident occurred *(Check all that apply)*

☐ Class A ☐ Class E ☐ Prohibited Area ☐ Jet Training Area ☐ Special
☐ Class B ☐ Class G ☐ Restricted Area ☐ TRSA ☐ Air Traffic Control Area
☐ Class C ☐ Demo Area ☐ Military Operations Area (MOA) ☐ FAR 93 ☐ Unknown
☐ Class D ☐ Warning Area ☐ Airport Advisory Area

Aircraft Load Description *(Check all that apply)*

☐ None ☐ Towing Glider ☐ Parachutists ☐ Livestock
☐ Passengers ☐ Towing Banner ☐ Water ☐ Unknown
☐ Cargo ☐ Other External ☐ Chemical/Fertilizer/Seeds

FUEL & SERVICES INFORMATION

Fuel on Board at Last Takeoff
(convert from pounds, as necessary)

_____ Gallons

Fuel Type

☐ 80/87 ☐ 115/145 ☐ JP3 ☐ Other, specify _____
☐ 100 Low Lead ☐ Jet A ☐ JP4
☐ 100/130 ☐ Automotive ☐ JP5

Other Services, if Any, Prior to Departure

EVACUATION OF AIRCRAFT

Was an emergency evacuation of the aircraft performed? ☐ Yes ☐ No

Method of Exit – Describe how the occupants exited and how many occupants evacuated each location

WEATHER INFORMATION AT THE ACCIDENT/INCIDENT SITE

Weather Observation Facility

Facility ID: _____

Observation Time: _____

Time Zone: _____

Distance from Accident Site: _____ NM

Direction from Accident Site: _____ degrees MAG

Source of Weather Information
(Check all that apply)

☐ National Weather Service
☐ Flight Service Station
☐ TV/Radio
☐ Automated Report
☐ Commercial Weather Service (DUATS)
☐ Company
☐ Military
☐ Internet
☐ Unknown

Method of Briefing
(Check all that apply)

☐ In Person
☐ Teletype
☐ Telephone/Computer
☐ Aircraft Radio
☐ TV/Radio
☐ Unknown

Briefing Type/Completeness

☐ Full
☐ Partial / Limited By Pilot
☐ Partial / Limited By Briefer
☐ Abbreviated
☐ Unknown
☐ Not Pertinent

Light Condition

☐ Dawn
☐ Day
☐ Dusk
☐ Night
☐ Dark Night
☐ Bright Night
☐ Not Reported

Visibility

_____ miles

Sky/Lowest Cloud Condition

☐ Clear
☐ Few
☐ Partial Obscuration
☐ Scattered
☐ Thin Broken
☐ Thin Overcast
☐ Unknown

Ceiling

☐ None (clear)
☐ Broken
☐ Overcast
☐ Obscured
☐ Indefinite
☐ Unknown

Restriction to Visibility *(Check all that apply)*

☐ None
☐ Blowing Dust
☐ Blowing Sand
☐ Blowing Snow
☐ Blowing Spray
☐ Dust
☐ Fog
☐ Ground Fog
☐ Haze
☐ Ice Fog
☐ Smoke
☐ Unknown

Lowest Cloud Condition Height

_____ ft AGL

Ceiling Height

_____ ft AGL

Wind Direction

☐ Indicated:
_____degrees MAG

☐ Variable

Wind Speed

Velocity: _____KTS

-or-

☐ Calm
☐ Light and Variable

Wind Gusts

Velocity: _____KTS

☐ Gusting
☐ Not Gusting

Type of Turbulence *(Check all that apply)*

☐ None
☐ Clear Air
☐ In Clouds
☐ Vicinity of Thunderstorm

Severity of Turbulence

☐ Extreme
☐ Severe
☐ Moderate
☐ Moderate Chop
☐ Light

NOTAMs (D, L and FDC), AIRMETs, SIGMETs, PIREPs in effect at the time of the accident/incident

Temperature: _____ (C)
or _____ (F)

Altimeter Setting: _____ in. HG
or _____ MB

Density Altitude: _____ ft

Dew Point: _____ (C)
or _____ (F)

Icing Forecast

Amount		Type
☐ None	☐ Moderate	☐ Rime
☐ Trace	☐ Severe	☐ Clear
☐ Light		☐ Mixed

Icing Actual

Amount		Type
☐ None	☐ Moderate	☐ Rime
☐ Trace	☐ Severe	☐ Clear
☐ Light		☐ Mixed

Type of Precipitation *(Check all that apply)*

☐ None
☐ Rain
☐ Snow
☐ Hail
☐ Rain Showers
☐ Freezing Rain
☐ Snow Shower
☐ Drizzle
☐ Ice Pellets
☐ Snow Pellets
☐ Snow Grains
☐ Ice Crystals
☐ Ice Pellets Shower
☐ Freezing Drizzle

Intensity of Precipitation

☐ Light ☐ Moderate ☐ Heavy

PILOT "A" INFORMATION

Pilot "A" Responsibilities at the Time of Accident/Incident

☐ Pilot ☐ Co-Pilot ☐ Student Pilot ☐ Flight Instructor ☐ Check Pilot ☐ Flight Engineer ☐ Other Flight Crew

Pilot "A" Identification

First Name: _____ City: _____

Middle Initial: _____ State: _____ ZIP: _____

Last Name: _____ Country: _____

Age at time of Accident/Incident: _____ Date of Birth: _____ (*mm/dd/yyyy*) Certificate Number: _____

Degree of Injury
☐ None ☐ Fatal
☐ Minor ☐ Unknown
☐ Serious

Seat Occupied
☐ Left ☐ Front ☐ Unknown
☐ Right ☐ Rear
☐ Center ☐ Single

Seat Belt
Used ☐ Yes ☐ No
Available ☐ Yes ☐ No

Shoulder Harness
Used ☐ Yes ☐ No
Available ☐ Yes ☐ No

Pilot Certificate(s) *(Check all that apply)*

☐ None ☐ Student ☐ Recreational ☐ Commercial ☐ Flight Engineer ☐ Foreign
☐ Private ☐ Flight Instructor ☐ Sport ☐ Airline Transport ☐ U.S. Military

Principal Occupation
☐ Pilot
☐ Other
☐ Unknown

Medical Certificate
☐ None ☐ Class 3
☐ Class 1 ☐ Driver's License (Sport Pilot only)
☐ Class 2 ☐ Unknown

Medical Certificate Validity
☐ Without limitations/waivers
☐ With limitations/waivers
☐ Unknown

Date of Last Medical
_____ (*mm/dd/yyyy*)

Medical Certificate Limitations

Medical Certificate Waivers

Date of Last Flight Review or Equivalent, Including FAR 121/135 Checks: _____ (*mm/dd/yyyy*)

Flight Review Aircraft

Make: _____

Model: _____

Airplane Rating(s) *(Check all that apply)*
☐ None
☐ Single-Engine Land
☐ Single-Engine Sea
☐ Multiengine Land
☐ Multiengine Sea

Other Aircraft Rating(s) *(Check all that apply)*
☐ None
☐ Airship
☐ Free Balloon
☐ Glider
☐ Gyroplane
☐ Helicopter
☐ Powered Lift

Instrument Rating(s) *(Check all that apply)*
☐ None
☐ Airplane
☐ Helicopter
☐ Powered Lift

Instructor Rating(s) *(Check all that apply)*
☐ None
☐ Airplane Single-Engine
☐ Airplane Multi-Engine
☐ Gyroplane
☐ Powered Lift
☐ Instrument Airplane
☐ Instrument Helicopter
☐ Helicopter
☐ Glider
☐ Sport

Type Ratings

Student Endorsements *(Include dates)*

Flight Time *(enter appropriate number of hours in each box)*	**All Aircraft**	**This Make & Model**	**Airplane Single Engine**	**Airplane Multiengine**	**Night**	**Instrument**		**Rotorcraft**	**Glider**	**Lighter Than Air**
						Actual	**Simulated**			
Total Time										
Pilot in Command (PIC)										
Time as Instructor										
This Make/Model										
Last 90 Days										
Last 30 Days										
Last 24 Hours										

PILOT "B" INFORMATION

Pilot "B" Responsibilities at the Time of Accident/Incident

☐ Pilot ☐ Co-Pilot ☐ Student Pilot ☐ Flight Instructor ☐ Check Pilot ☐ Flight Engineer ☐ Other Flight Crew

Pilot "B" Identification

First Name: _____ City: _____

Middle Initial: _____ State: _____ ZIP: _____

Last Name: _____ Country: _____

Age at time of Accident/Incident: _____ Date of Birth: _____ *mm/dd/yyyy* Certificate Number: _____

Degree of Injury

☐ None ☐ Fatal
☐ Minor ☐ Unknown
☐ Serious

Seat Occupied

☐ Left ☐ Front ☐ Unknown
☐ Right ☐ Rear
☐ Center ☐ Single

Seat Belt

Used ☐ Yes ☐ No
Available ☐ Yes ☐ No

Shoulder Harness

Used ☐ Yes ☐ No
Available ☐ Yes ☐ No

Pilot Certificate(s) *(Check all that apply)*

☐ None ☐ Student ☐ Recreational ☐ Commercial ☐ Flight Engineer ☐ Foreign
☐ Private ☐ Flight Instructor ☐ Sport ☐ Airline Transport ☐ U.S. Military

Principal Occupation

☐ Pilot
☐ Other
☐ Unknown

Medical Certificate

☐ None ☐ Class 3
☐ Class 1 ☐ Driver's License (Sport Pilot only)
☐ Class 2 ☐ Unknown

Medical Certificate Validity

☐ Without limitations/waivers
☐ With limitations/waivers
☐ Unknown

Date of Last Medical

_____ *mm/dd/yyyy*

Medical Certificate Limitations

Medical Certificate Waivers

Date of Last Flight Review or Equivalent, Including FAR 121/135 Checks: _____ *mm/dd/yyyy*

Flight Review Aircraft

Make: _____

Model: _____

Airplane Rating(s) *(Check all that apply)*

☐ None
☐ Single-Engine Land
☐ Single-Engine Sea
☐ Multiengine Land
☐ Multiengine Sea

Other Aircraft Rating(s) *(Check all that apply)*

☐ None
☐ Airship
☐ Free Balloon
☐ Glider
☐ Gyroplane
☐ Helicopter
☐ Powered Lift

Instrument Rating(s) *(Check all that apply)*

☐ None
☐ Airplane
☐ Helicopter
☐ Powered Lift

Instructor Rating(s) *(Check all that apply)*

☐ None ☐ Instrument Airplane
☐ Airplane Single-Engine ☐ Instrument Helicopter
☐ Airplane Multi-Engine ☐ Helicopter
☐ Gyroplane ☐ Glider
☐ Powered Lift ☐ Sport

Type Ratings

Student Endorsements *(Include dates)*

Flight Time *(enter appropriate number of hours in each box)*	**All Aircraft**	**This Make & Model**	**Airplane Single Engine**	**Airplane Multiengine**	**Night**	**Instrument**		**Rotorcraft**	**Glider**	**Lighter Than Air**
						Actual	**Simulated**			
Total Time										
Pilot in Command (PIC)										
Time as Instructor										
This Make/Model										
Last 90 Days										
Last 30 Days										
Last 24 Hours										

ADDITIONAL FLIGHT CREW MEMBERS (Exclusive of cabin attendants, complete the following information)

Pilot Name and Address

First Name: ____________________ City: ____________________
Middle Initial: ________ State: __________ ZIP: ___________
Last Name: ____________________ Country: ____________________

Degree of Injury
☐ None ☐ Fatal
☐ Minor ☐ Unknown
☐ Serious

Pilot Certificate(s) *(Check all that apply)*
☐ None ☐ Student ☐ Recreational ☐ Commercial ☐ Flight Engineer ☐ Foreign
☐ Private ☐ Flight Instructor ☐ Sport ☐ Airline Transport ☐ U.S. Military

Seat Occupied
☐ Left ☐ Front
☐ Right ☐ Rear
☐ Center ☐ Single
☐ Unknown

Type Rating/Endorsement for Accident/Incident Aircraft? ☐ Yes ☐ No

Total Flight Time at the Time of this Accident/Incident: ___________hrs

Pilot Name and Address

First Name: ____________________ City: ____________________
Middle Initial: ________ State: __________ ZIP: ___________
Last Name: ____________________ Country: ____________________

Degree of Injury
☐ None ☐ Fatal
☐ Minor ☐ Unknown
☐ Serious

Pilot Certificate(s) *(Check all that apply)*
☐ None ☐ Student ☐ Recreational ☐ Commercial ☐ Flight Engineer ☐ Foreign
☐ Private ☐ Flight Instructor ☐ Sport ☐ Airline Transport ☐ U.S. Military

Seat Occupied
☐ Left ☐ Front
☐ Right ☐ Rear
☐ Center ☐ Single
☐ Unknown

Type Rating/Endorsement for Accident/Incident Aircraft? ☐ Yes ☐ No

Total Flight Time at the Time of this Accident/Incident: ___________hrs

Pilot Name and Address

First Name: ____________________ City: ____________________
Middle Initial: ________ State: __________ ZIP: ___________
Last Name: ____________________ Country: ____________________

Degree of Injury
☐ None ☐ Fatal
☐ Minor ☐ Unknown
☐ Serious

Pilot Certificate(s) *(Check all that apply)*
☐ None ☐ Student ☐ Recreational ☐ Commercial ☐ Flight Engineer ☐ Foreign
☐ Private ☐ Flight Instructor ☐ Sport ☐ Airline Transport ☐ U.S. Military

Seat Occupied
☐ Left ☐ Front
☐ Right ☐ Rear
☐ Center ☐ Single
☐ Unknown

Type Rating/Endorsement for Accident/Incident Aircraft? ☐ Yes ☐ No

Total Flight Time at the Time of this Accident/Incident: ___________hrs

PASSENGER(S) / OTHER PERSONNEL (Include flight attendants; continue on separate sheet if necessary)

Name and Address		Seat	Crew	Non-Revenue	Revenue	Non-Occupant	FAA	Fatal	Serious Injury	Minor Injury	No Injury	Unknown
First Name: ____ Middle Initial: ____ Last Name: ____	City: ____ State: ____ ZIP: ____ Country: ____	____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
First Name: ____ Middle Initial: ____ Last Name: ____	City: ____ State: ____ ZIP: ____ Country: ____	____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
First Name: ____ Middle Initial: ____ Last Name: ____	City: ____ State: ____ ZIP: ____ Country: ____	____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
First Name: ____ Middle Initial: ____ Last Name: ____	City: ____ State: ____ ZIP: ____ Country: ____	____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
First Name: ____ Middle Initial: ____ Last Name: ____	City: ____ State: ____ ZIP: ____ Country: ____	____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
First Name: ____ Middle Initial: ____ Last Name: ____	City: ____ State: ____ ZIP: ____ Country: ____	____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
First Name: ____ Middle Initial: ____ Last Name: ____	City: ____ State: ____ ZIP: ____ Country: ____	____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
First Name: ____ Middle Initial: ____ Last Name: ____	City: ____ State: ____ ZIP: ____ Country: ____	____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

NARRATIVE HISTORY OF FLIGHT **(Please type or print in ink)**

Describe what occurred in chronological order, including circumstances leading to and nature of accident/incident. Describe terrain and include wreckage distribution sketch if pertinent. Attach extra sheets if needed. State time and point of departure, intended destination, and services obtained.

RECOMMENDATION **(How could this accident/incident have been prevented?)**

Operator/Owner Safety Recommendation

ADDITIONAL INFORMATION *(Please type or print in ink)*

Use this space if additional space is needed for any answers.

I HEREBY CERTIFY THAT THE ABOVE INFORMATION IS COMPLETE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Date of this Report	**Signature and Name of Pilot/Operator**
_____ *mm/dd/yyyy*	Signature:_____ Type or Print Name: _____

Signature and Name of Person Filing Report if Other than Pilot/Operator

Signature: _____

Type or Print Name: _____

Title: _____

FOR NTSB USE ONLY

NTSB Accident/Incident No.	**Reviewed by NTSB Regional Office**	**Name of Investigator**	**Date Report Received**

AIRCRAFT ACCIDENT/INCIDENT PRELIMINARY NOTICE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

FROM *(Office of origin)*:	TO:	DATE *(UTC)*:	TIME *(UTC)*:

CODE	*(First words of text)* **AIRCRAFT ACCIDENT/INCIDENT PRELIMINARY NOTICE-Part 1**
A	1. INFORMATION FROM:
B	1. REGISTRATION NO: / 2. MAKE AND MODEL: / 3. OPERATOR OF AIRCRAFT:
	4. TYPE OF ACTIVITY *(Air taxi, instruction, pleasure, aerial appl., business, executive, sightseeing, etc.)* IF KNOWN:
	5. BRIEF DESCRIPTION OF CIRCUMSTANCES SURROUNDING OCCURRENCE:
	6. WEATHER DATA:
	7. AIRCRAFT DAMAGE: A ☐ DESTROYED B ☐ SUBSTANTIAL C ☐ MINOR D ☐ FIRE E ☐ NONE
C	**OCCUPANTS – INDICATE INJURIES: FATAL, SERIOUS, MINOR, NONE**
	1. NAME AND ADDRESS OF PILOT/INJURY: / 2. NAMES OF CREW/INJURIES: / 3. NO. OF PASSENGERS/ INJURIES:
D	1. LOCATION OF OCCURRENCE *(Nearest city, town, and state) (Give route if overdue or missing):*
E	1. UTC DATE AND UTC TIME OF OCCURRENCE:
F	1. INFORMATION ON COVERAGE OF OCCURRENCE BY FAA, NTSB, OTHER:
G	FAA AIR TRAFFIC SERVICES SUMMARY OF FLIGHT HANDLING
	1A. LAST DEPARTURE POINT: / 1B. UTC DATE AND UTC TIME: / 1C. INTENDED DESTINATION:
	2. LAST RADIO CONTACT/POSITION AND/OR RADAR POSITION:
	3. LAST ATC CONTROL CLEARANCE:
	4. FLIGHT PLAN: A ☐ IFR B ☐ VFR C ☐ NONE D ☐ UNKNOWN
	5. PILOT BRIEFING: A ☐ YES B ☐ NO C ☐ UNKNOWN
	6. OTHER:

RECEIVED AT:	DELIVERED TO:	TIME:

RECEIVED VIA:	RECEIVED BY *(Signature and Title):*
A ☐ IN PERSON B ☐ RADIO C ☐ TELEPHONE	

NOTE: Part 2

A ☐ ON OTHER SIDE B ☐ ON SEPARATE FORM C ☐ NOT REQUIRED

AIRCRAFT ACCIDENT/INCIDENT PRELIMINARY NOTICE

FROM *(Office of origin)*:	TO:	DATE *(UTC)*:	TIME *(UTC)*:

CODE — *(First words of text)* **AIRCRAFT ACCIDENT/INCIDENT PRELIMINARY NOTICE-Part 2**

H

1. REGISTRATION NO:	2. MAKE AND MODEL:	3. UTC DATE OF ACCIDENT/INCIDENT:

I

STATUS OF POTENTIALLY INVOLVED AIRWAY FACILITIES
(CHECK [√] MARK STATUS AS INDICATED BY MONITOR OR REPORTED BY A.F. TECHNICIAN)

1. FACILITY TYPE:	2. LOCATION RUNWAY IDENTIFIER:	3. JUST PRIOR TO OCCURRENCE:		4. AT TIME OF OCCURRENCE:		5. FLIGHT INSPECTION:			
		A NORMAL	B ABNORMAL OR OUT OF SERVICE	A NORMAL	B ABNORMAL OR OUT OF SERVICE	CON-DUCTED		SATIS-FACTORY	
						A YES	B NO	C YES	D NO

6. REMARKS *(Explain briefly any entry above that is check marked as abnormal, or out of service):*

J

STATUS REPORT RECEIVED FROM PILOTS OR OTHERS

List below any facilities reported by pilots or other persons as either operating normally, abnormally, or out of service just prior to, at the time of, or immediately following the time of the accident.

1. FACILITY TYPE:	2. LOCATION/ RUNWAY IDENTIFIER:	3. IDENTIFICATION NO. OF AIRCRAFT AND NAME OF PERSON FROM WHOM REPORT WAS RECEIVED:	4. STATUS REPORT *(Normal, abnormal, out of service, etc.)*:	5. TIME OBSERVATION *(UTC)*:

6. REMARKS *(Briefly describe the nature of any reported abnormally, reason for being out of service, etc.)*:

RECEIVED AT:	DELIVERED TO:	TIME:

RECEIVED VIA:	RECEIVED BY *(Signature and Title):*
A ☐ IN PERSON B ☐ RADIO C ☐ TELEPHONE	

NOTE: Part 1

A ☐ ON OTHER SIDE B ☐ ON SEPARATE FORM

FAA ACCIDENT / INCIDENT REPORT

1. **ACCIDENT** ☐ **INCIDENT** ☐

3. **DATE OF EVENT** **MO** ☐☐ **DA** ☐☐ **YR** ☐☐

4. **FAA OFFICE** REGION ☐☐ OFFICE NUMBER ☐☐

5. **NTSB ID** ☐☐☐☐☐☐☐☐☐☐☐☐☐☐

6. **LOCATION-CITY/STATE/ZIP**

7. **OPERATOR NAME** FOUR LETTER IDENTIFIER ☐☐☐☐

8. **AIRPORT** (IF APPLICABLE) 3-OR 4-LETTER ID ☐☐☐☐

9. **LOCAL TIME** 24 HOUR CLOCK ☐☐☐☐

10A. **LATITUDE**

10B. **LONGITUDE**

2. **AMENDED DATE** **MO** ☐☐ **DA** ☐☐ **YR** ☐☐

13. **AIRCRAFT**

REGISTRATION

MAKE/MODEL

SERIAL NO.

YEAR OF MANUFACTURE ☐☐☐☐

TOTAL AIRFRAME HRS. (WHOLE HOURS) ☐☐☐☐☐

TOTAL AIRFRAME HRS. (WHOLE HOURS) ☐☐☐☐☐

16. **POWER PLANT MAKE/MODEL/SERIES** (IF APPLICABLE)

17. **PROPELLER MAKE/MODEL/SERIES** (IF APPLICABLE)

18. **BIOHAZARD AREA** **YES** ☐ **NO** ☐

14. **FAR PART NUMBER**

	91		133
	103		135 ON DEMAND
	105		135 COMMUTER
	121		
	125		
	129		

15. **TYPE OF AIRCRAFT**

	AIRPLANE
	HELICOPTER
	GLIDER
	BALLOON
	DIRIGIBLE
	GYROPLANE
	HOMEBUILT/AMATEUR/EXP.
	ULTRALIGHT

19. **TYPE OF LANDING GEAR**

	CONVENTIONAL		SKIS
	TRICYCLE		AMPHIBIOUS
	FLOATS		

20. **INJURY SUMMARY** **UNKNOWN** ☐

	FLT. CREW	CABIN CREW	PASSENGERS	OTHER	TOTAL
NONE					
MINOR					
SERIOUS					
FATAL					
TOTAL					

11. **AIRCRAFT DAMAGE**

	NONE
	MINOR
	SUBSTANTIAL
	DESTROYED

12. **COLLISION - BETWEEN TWO AIRCRAFT**

YES ☐ AIR ☐

NO ☐ GROUND ☐

REGISTRATION NUMBER SECOND AIRCRAFT

21. **FACTORS** - IDENTIFY PRIMARY FACTOR AS A. IDENTIFY SECONDARY FACTORS, IF ANY, AS X.
CHECKING OF FACTORS IS THE OPINION OF THE INVESTIGATOR/INSPECTOR BASED ON THE INVESTIGATION.

21A. TECHNICAL FACTORS				21B. OPERATIONAL FACTORS	
	GEAR COLLAPSE		FIRE AFTER LANDING		FUEL DEPLETION
	GEAR UP LANDING		SYSTEM FAILURE		PILOT INDUCED
	FIRE OR EXPLOSION		COMPONENT FAILURE		GROUND CREW
	FUEL CONTAMINATION		LOST POWER		OTHER THAN PILOT
	BLADE/ROTOR FAILURE		FOD		PARACHUTE INCIDENT
	DESIGN OF AIRCRAFT		AUTO/IMPROPER		OVER GROSS WEIGHT
	METAL FATIGUE		CORROSION		CG OUT OF LIMITS
	IMPROPER		INFLIGHT FIRE		STRUCK ANIMAL
	IMPROPER INSTALLATION		SMOKE/FUMES		BIRD STRIKE
	AD NON-COMPLIANCE		INFLIGHT BREAKUP		PAX DISTURBANCE
	DECOMPRESSION		IMPROPER PART		STOLEN AIRCRAFT
21F. **ATA CODE** ☐☐ ☐☐			OTHER		HIJACK

21C. **PART NAME**	21D. **MANUFACTURER**	21E. **PART NUMBER**

	22. TYPE OF OPERATIONS
	PERSONAL
	COMMERCIAL
	CARGO
	INSTRUCTION
	CORPORATE
	FERRY
	AERIAL APPLICATION
	AMBULANCE
	FIREFIGHTING
	BANNER TOW
	AIR SHOW
	SIGHTSEEING
	SKYDIVING
	FAR 141 PILOT SCHOOL
	MILITARY
	FOREIGN
	PUBLIC USE
	OTHER

	23. TECHNICAL FACTORS		24. PRECIPITATION
	NOT APPLICABLE / NOT AVAILABLE		NOT APPLICABLE / NOT AVAILABLE
	NATIONAL WEATHER SERVICE		RAIN
	FLIGHT SERVICE STATION		HAIL
	PATWAS		SLEET
	VOICE RESP. SYSTEM		SNOW
	COMPANY		FREEZING DRIZZLE
	COMMERCIAL WX. SERVICE		FREEZING RAIN
	TV/RADIO WEATHER		DRIZZLE
	MILITARY		OTHER
	COMPUTER BRIEFING		

25. **TECHNICAL FACTORS**

	NONE / NOT APPLICABLE		THUNDERSTORM
	HAZE		CROSSWIND
	DUST		TURBULENCE / WINDSTORM
	SMOKE		DENSITY ALTITUDE
	FOG		LIGHTNING STRIKE
	BLOWING DUST		BLOWING SNOW
	BLOWING SMOKE		WHITE OUT
	ICING CONDITIONS		WIND SHEAR
	GUSTY WINDS		OTHER

26. **PHASE OF FLIGHT**

	GROUND		CRUISE		MANEUVER
	TAXI		DESCENT		HOVER
	TAKEOFF		APPROACH		OTHER
	CLIMB		LANDING		

27. **ACTUAL WEATHER**
IMC ☐ **VMC** ☐ **NOT APPLICABLE** ☐

28. **RUNWAY CONDITIONS** **NOT APPLICABLE** ☐

	DRY		SNOW
	WET		SLUSH
	ICE		STANDING WATER

29. **GENERAL AVIATION ACCIDENTS ONLY**

DID PILOT ATTEND SAFETY SEMINAR OR CLINIC WITHIN PAST 3 YEARS? YES ☐ NO ☐ UNKNOWN ☐

DID PILOT PARTICIPATE IN WINGS PROGRAM WITHIN PAST 3 YEARS? YES ☐ NO ☐ UNKNOWN ☐

DID PILOT ATTEND ANY OTHER RECURRENT TRAINING WITHIN THE PAST 3 YEARS? YES ☐ NO ☐ UNKNOWN ☐

EVACUATION OVERVIEW

30. **(AIR CARRIER ONLY)**

EVACUATION INITIATED		EVACUATION INJURIES	
YES	NO	YES	NO
☐	☐	☐	☐

31. **PILOT INFORMATION** ☐ **NOT APPLICABLE**

		CERTIFICATE TYPE		SECOND PILOT
NAME			RECREATIONAL	
DATE OF BIRTH	MO DA YR		STUDENT	MO DA YR
DATE HIRED (AIR CARRIER ONLY)	MO DA YR		PRIVATE	MO DA YR
DOMICILE ZIP CODE			COMMERCIAL	
HOURS MAKE AND MODEL			FLIGHT INST.	
HOURS LAST 90 DAYS			ATP	
TOTAL HOURS			NON-PILOT	
CERTIFICATE NO.				
REGULATORY CHECK RIDE	MO DA YR			MO DA YR

32. CORRECTIVE ACTION(S) PLANNED OR INITIATED NONE ☐ 44709 EXAM ☐ EIR ☐ SDR ☐ COUNSELING ☐ M or D ☐ OTHER ☐

33. **NARRATIVE (ATTACH ADDITIONAL SHEETS AS NECESSARY)**

(ONLY STATE THE FACTS THAT ARE CAUSAL TO THE ACCIDENT/INCIDENT)

CONDUCT OF INVESTIGATION

34. **NTSB PARTICIPATION** **ON-SCENE** ☐ **LIMITED** ☐

35. **FAA PARTICIPATION** **ON-SCENE** ☐ **NOT ON-SCENE** ☐ **SCENE NOT ACCESSIBLE** ☐

36. **FAA INITIAL NOTIFICATION**
DATE AND LOCAL TIME
MO DA YR
24 - HOUR CLOCK

37. **FSDO NOTIFICATION**
DATE AND LOCAL TIME
MO DA YR
24 - HOUR CLOCK

38. **FAA IIC ARRIVAL ON-SCENE**
DATE AND LOCAL TIME
MO DA YR
24 - HOUR CLOCK

39. . **FAA HOURS USED FOR TOTAL INVESTIGATION**

40. . **TOTAL HOURS USED AT ACCIDENT SCENE**

41. . **TOTAL TRAVEL HOURS TO & FROM SCENE**

42. **FAA NINE RESPONSIBILITIES**

IDENTIFICATION OF RESPONSIBILITIES IS THE INVESTIGATORS OPINION BASED ON HIS/HER INVESTIGATION

1. FAA FACILITIES YES ☐ NO ☐	4. AIRMAN/AIR AGENCY COMPETENCE YES ☐ NO ☐	7. SECURITY YES ☐ NO ☐
2. NON FAA FACILITIES YES ☐ NO ☐	5. FAR CHANGE NEEDED YES ☐ NO ☐	8. AIRMAN MEDICAL QUALIF. YES ☐ NO ☐
3. AIRWORTHINESS YES ☐ NO ☐	6. AIRPORT CERTIFICATION YES ☐ NO ☐	9. FAR VIOLATIONS YES ☐ NO ☐

43. BRIEF EXPLANATION OF ISSUES INVOLVED

44. **FAA IIC NAME** **DATE** **REGION** **DISTRICT OFFICE**

INSTRUCTIONS FOR ACCIDENT/INCIDENT REPORT

1. OCCURRENCE INFORMATION:
THIS FORM IS TO BE FILLED OUT FOR EACH ACCIDENT/INCIDENT AND FORWARDED TO THE REGIONAL FS DIVISION WITHIN 30 DAYS. REGIONAL FS DIVISION WILL FORWARD ORIGINAL FAA ACCIDENT/ INCIDENT REPORT TO AFS-620 AND A COPY OF ACCIDENT REPORTS ONLY TO AAI-220.

2. AMENDED DATE:
FOR AMENDED REPORTS FILL IN ITEMS 1, 2, 3, 5, AND 13, REGISTRATION NUMBER ONLY, AND NEW OR CHANGED INFORMATION PERTAINING TO ACCIDENT INVESTIGATION.

3. DATE OF THE OCCURRENCE:
MONTH/DAY/YEAR.

4. FAA (INVESTIGATING OFFICE):
THE FIRST TWO BLOCKS ARE THE REGION. THE SECOND TWO BLOCKS ARE THE NUMERICAL I.D. OF THE FSDO, E.G., EA 21.

5. NTSB ID:
FOR ACCIDENTS ONLY AND SUPPLIED BY THE NTSB OFFICE WITH JURISDICTIONAL RESPONSIBILITY.

6. LOCATION :
CITY: NEAREST CITY OR TOWN.
STATE: 2 LETTER IDENTIFIER.
ZIP CODE: SELF- EXPLANATORY.

7. OPERATOR:
FOR AIR CARRIER OCCURRENCES ONLY. PROVIDE THE NAME OF THE OPERATOR THAT HAS OPERATIONAL CONTROL. THE 4-LETTER DESIGNATOR IS FROM PTRS.

8. AIRPORT:
NAME OF AIRPORT IF OCCURRENCE TOOK PLACE ON AN AIRPORT. AIRPORT DESIGNATOR ACCORDING TO ORDER 7310.1.

9. TIME:
LOCAL 24 HOUR CLOCK.

10. LATITUDE / LONGITUDE:
SELF-EXPLANATORY. ALASKA ACCIDENTS ONLY.

11. AIRCRAFT DAMAGE:
CHECK THE MOST SEVERE DAMAGE.

12. COLLISION:
MEANS TWO AIRCRAFT COLLIDED IN THE AIR OR ON THE GROUND. BOTH WERE FLYING OR HAD THE INTENT TO FLY. TWO FORMS REQUIRED IF BOTH AIRCRAFT WERE FLYING OR HAD THE INTENT TO FLY.

13. AIRCRAFT REGISTRATION NUMBER:
E.G. N1234M. MAKE/MODEL: MANUFACTURER/MODEL/SERIES, E.G. , DC-9-10. SERIAL NUMBER: SELF EXPLANATORY. YEAR OF MANUFACTURE: E.G., 1994 AIRFRAME CYCLES, AIRFRAME HOURS SELF-EXPLANATORY.

14. FAR PART NUMBER:
CHECK THE REGULATION THAT THE AIRCRAFT WAS OPERATING UNDER. AN AIR CARRIER DOING POSITIONING, TRAINING, ETC., IS PART 91. PART 135 AIR TAXI OR AIR AMBULANCE IS PART 91 UNTIL PASSENGER PICKUP. MEDICAL PERSONNEL ARE CONSIDERED PART OF THE CREW.

15. TYPE OF AIRCRAFT:
SELF- EXPLANATORY (MORE THAN ONE MAY BE CHECKED).

16. POWERPLANT INFORMATION:
(ONLY IF CAUSAL TO THE ACCIDENT/INCIDENT):
LIST MAKE/MODEL/SERIES OF ENGINE.

17. PROPELLER INFORMATION :
(ONLY IF CAUSAL TO THE ACCIDENT/INCIDENT):
LIST MAKE/MODEL/SERIES OF PROPELLER.

18. BIOHAZARD AREA:
CHECK YES IF BODY FLUIDS WERE PRESENT. USE OR NONUSE OF PERSONAL PROTECTIVE EQUIPMENT DOES NOT AFFECT THIS QUESTION.

19. TYPE OF LANDING GEAR:
SELF -EXPLANATORY.

20. INJURY SUMMARY:
ENTER THE NUMBERS INVOLVED AND ACCOUNT FOR ALL ON BOARD THE AIRCRAFT, AND ACCOUNT FOR THE PERSONNEL INJURED THAT WERE NOT ON THE AIRCRAFT.

21. FACTORS:
CHECK THE PRIMARY FACTOR FROM EITHER TECHNICAL OR OPERATIONAL FACTORS BLOCK WHICHEVER IS MOST APPROPRIATE .

21A. TECHNICAL FACTORS:
CHECK APPLICABLE BOXES. MORE THAN ONE MAY BE CHECKED. THIS IS THE INSPECTOR/INVESTIGATOR OPINION BASED ON HIS/HER INVESTIGATION.

21B. OPERATIONAL FACTORS:
SAME AS 21A.

21C. PART NAME:
IDENTIFY THE PART NAME THAT FAILED OR IS SUSPECTED OF FAILURE BY THE PROPER NOMENCLATURE THAT IS DEPICTED IN THE MANUFACTURERS PARTS CATALOGUE.

21D. MANUFACTURER:
IDENTIFY THE MANUFACTURER OF THE PART, IF KNOWN.

21E. PART NUMBER:
IDENTIFY THE MANUFACTURER PART NUMBER. THIS WOULD BE THE SAME NUMBER NEEDED TO REQUISITION A REPLACEMENT PART.

21F. ATA CODE:
REFER TO THE CODE TABLE IN THE FLIGHT STANDARDS GUIDE TITLED: JOINT AIRCRAFT SYSTEM AND COMPONENT CODE TABLE AND DEFINITIONS DATED JANUARY 1996.

22. TYPE OF OPERATIONS:
CHECK APPROPRIATE BOXES.

23. WEATHER BRIEFING SOURCE:
SAME AS 21A.

24. PRECIPITATION:
SAME AS 21A.

25. WEATHER FACTORS:
SAME AS 21A.

26. PHASE OF FLIGHT:
WHERE ACCIDENT AND INCIDENT SEQUENCE STARTED.
CHECK APPLICABLE PHASE.

27. ACTUAL WEATHER CONDITIONS:
CHECK APPROPRIATE BOX.

28. RUNWAY CONDITIONS:
CHECK APPROPRIATE BOX.

29. GENERAL AVIATION ACCIDENTS ONLY:
SELF- EXPLANATORY.

30. EVACUATION OVERVIEW (AIR CARRIER ONLY):
EVACUATION INITIATED YES/NO.
INJURIES: CHECK YES IF INJURIES ATTRIBUTABLE TO EVACUATION.

31. PILOT INFORMATION:
SELF- EXPLANATORY. CHECK THE HIGHEST CERTIFICATE THAT THE PILOT HAS. PIC NAME NOT APPLICABLE IF THE PILOTS ACTIONS OR LACK OF ACTIONS DID NOT CONTRIBUTE TO THE ACCIDENT/INCIDENT. HOWEVER, FOR AIR CARRIER ACCIDENTS, PLEASE PROVIDE PIC DOB, HOURS MAKE AND MODEL, AND TOTAL HOURS.

32. CORRECTIVE ACTION:
SELF- EXPLANATORY.

33. NARRATIVE:
SELF- EXPLANATORY.

34. NTSB PARTICIPATION (ACCIDENT ONLY):
SELF- EXPLANATORY.

35. FAA PARTICIPATION:
SELF- EXPLANATORY. ON-SCENE CAN BE CHECKED IF THE INSPECTOR/ INVESTIGATOR PARTICIPATES IN THE INVESTIGATION BEYOND USE OF THE TELEPHONE, I.E., ENGINE TEARDOWN, INTERVIEW,OR WRECKAGE INVESTIGATION NOT AT THE SCENE OF THE ACCIDENT, ETC.

36. FAA INITIAL NOTIFICATION:
THIS IS THE TIME THE FIRST FAA PERSON WHO DISCOVERS OR IS NOTIFIED OF THE OCCURRENCE. THIS IS USUALLY AIR TRAFFIC.

37. FSDO NOTIFICATION:
THIS IS THE FIRST CALL THAT THE FSDO RECEIVES.

38. FAA IIC ARRIVAL ON SCENE:
SELF-EXPLANATORY.

39. FAA HOURS USED FOR TOTAL INVESTIGATION:
INCLUDES ON-SCENE, TRAVEL HOURS, AND NON-SCENE ACTIVITIES. WHOLE HOURS ONLY.

40. TOTAL HOURS USED AT ACCIDENT/INCIDENT SCENE:
WHOLE HOURS ONLY.

41. TOTAL TRAVEL HOURS TO & FROM SCENE:
WHOLE HOURS ONLY.

42. FAA NINE RESPONSIBILITIES (ACCIDENT MANDATORY/INCIDENTS OPTIONAL):
CHECK WHICH OF THE AREAS OF RESPONSIBILITY WERE INVOLVED. THE DETERMINATION OF RESPONSIBILITIES IS THE OPINION OF THE INSPECTOR/ INVESTIGATOR BASED ON HIS/HER BACKGROUND, TRAINING, SKILL, AND EXPERIENCE. THE ANNOTATION OF ONE OR MORE RESPONSIBILITIES DOES NOT HAVE TO BE JUSTIFIED OR PROVEN. AN AIRMAN WHO MAKES A MISTAKE WHICH RESULTS IN AN ACCIDENT IS ANNOTATED UNDER AIRMAN/AIR AGENCY COMPETENCE. IT IS NOT NECESSARY TO SUBMIT AN EIR BECAUSE OF ANNOTATION OF VIOLATION.

43. BRIEF EXPLANATION OF ISSUES INVOLVED FOR EACH OF THE NINE RESPONSIBILITIES INVOLVED.
IF NONE INVOLVED, EXPLAIN WHY. SELF-EXPLANATORY.

44. FAA IIC NAME:
PRINT, SIGN, AND DATE.