



# Federal Register

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**Wednesday,  
September 17, 2003**

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## **Part II**

# **Department of Transportation**

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**Federal Aviation Administration**

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**14 CFR Parts 21, 61, 91, et al.  
Regulation of Fractional Aircraft  
Ownership Programs and On-Demand  
Operations; Final Rule**

**DEPARTMENT OF TRANSPORTATION****Federal Aviation Administration****14 CFR Parts 21, 61, 91, 119, 125, 135, and 142**

[Docket No. FAA-2001-10047; Amdt. Nos. 21-84, 61-109, 91-274, 119-7, 125-44, 135-82, 142-5]

RIN 2120-AH06

**Regulation of Fractional Aircraft Ownership Programs and On-Demand Operations**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** The Federal Aviation Administration (FAA) is updating and revising the regulations governing operations of aircraft in fractional ownership programs. The FAA has determined that the current regulations do not adequately define fractional ownership programs and do not clearly allocate responsibility and authority for safety and compliance with the regulations. This final rule defines fractional ownership programs and their various participants, allocates responsibility and authority for safety of flight operations for purposes of compliance with the regulations, and ensures that fractional ownership program aircraft operations will maintain a high level of safety. These regulations provide a level of safety for fractional ownership programs equivalent to certain regulations that apply to on-demand operators. The rule also revises some requirements that apply to on-demand operators that meet certain criteria. The revisions permit these operators to follow an alternate means of compliance for certain commercial operations.

**EFFECTIVE DATE:** November 17, 2003. A person who conducted flights before November 17, 2003 under a program that meets the definition of a fractional ownership program in § 91.1001 may not conduct such flights after December 17, 2004 unless it has obtained management specifications under this final rule.

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**SUPPLEMENTARY INFORMATION:****General Abbreviations Used in This Preamble**

AFM Aircraft Flight Manual  
 ATC Air Traffic Control  
 ATP Airline Transport Pilot  
 CAMP Continuous Airworthiness Maintenance Program  
 DOM Director of Maintenance  
 FACA Federal Advisory Committee Act  
 FL Flight Level  
 FOARC Fractional Ownership Aviation Rulemaking Committee  
 FSDO Flight Standards District Office  
 GPWS Ground Proximity Warning System  
 ICAO International Civil Aviation Organization  
 IFR Instrument Flight Rules  
 IMC Instrument Meteorological Conditions  
 MEL Minimum Equipment List  
 NEPA National Environmental Policy Act  
 NM Nautical Miles  
 NTSB National Transportation Safety Board  
 PIC Pilot in Command  
 RVSM Reduced Vertical Separation Minimum Airspace  
 SIC Second in Command  
 STC Supplemental Type Certificate  
 TCAS Traffic Alert and Collision Avoidance System  
 VFR Visual Flight Rules  
 VMC Visual Meteorological Conditions  
 V<sub>REF</sub> Designated Landing Approach Speed

**History and Background**

In 1986, Executive Jet Aviation, Inc. (EJA), created a new program that offered aircraft owners increased flexibility in the ownership and operation of aircraft by individuals and corporations. The program offered shared aircraft ownership (fractional ownership), and provided for the management of the aircraft by an aircraft management company. Aircraft owners participating in the program agreed to share their aircraft with others having an ownership interest in that aircraft, as well as to lease their aircraft to other owners in the program that did not have an interest in that aircraft. The aircraft owners used the common management company to maintain the aircraft and administer the leasing of the aircraft among the owners. An FAA regional determination allowed this fractional ownership program to operate under 14 CFR part 91.

Since that time, the number of companies offering fractional ownership programs has grown. During the 1990s this growth was substantial and sustained. As of early 2000, the leading fractional ownership programs managed approximately 465 aircraft on behalf of 3,446 shareowners. By the end of 2001 there were over 3,500 owners of more than 5,000 shares of 650 aircraft. Growth in fractional ownership programs is expected to continue to increase.

While most fractional ownership programs are conducted under 14 CFR part 91, some are conducted under 14

CFR part 135. Of those operating under part 91, the FAA believes that most follow the "best practices" of corporate aviation. FAA and NTSB accident data for U.S.-registered turbine powered aircraft during the period from 1990—2001 shows that fractional ownership aircraft operations are conducted with a high degree of safety.

As fractional ownership programs have grown in size, complexity and number, there has been much controversy within the aviation community whether the FAA should regulate these programs under part 91 or under part 135 on-demand operations. Also, the FAA has had concerns about accountability and responsibility for compliance and about maintaining a high level of safety. Consequently, the FAA continued its analysis of the appropriate regulatory environment for these programs.

**Operational Control and Regulatory Responsibility**

The FAA's objective is to establish the appropriate level of regulatory oversight to ensure safe aircraft operations. The FAA regulations have always contained different levels of FAA oversight depending on operational control and compliance responsibility. Airline passengers exercise no control over and bear no responsibility for the airworthiness or operation of the aircraft on which they are passengers. The air carrier exercises control of the operation and bears responsibility for compliance with the regulations. Because the air carrier is a commercial enterprise in the business of air transportation for the public, the FAA imposes on the air carrier stringent regulations and oversight under part 121 or part 135, as appropriate.

In contrast, aircraft owners flying aboard aircraft they own or lease exercise full control over and bear full responsibility for the airworthiness and operation of their aircraft. Under these circumstances, the FAA has determined that the appropriate level of oversight is provided by the regulations in part 91, which are generally less stringent than those of part 121 or part 135. Part 91 regulations cover what is commonly called general aviation, which includes individual pilot/owner operations and corporate owner operations.

Business aviation in large and turbine-powered multiengine airplanes is regulated under part 91, subpart F. In creating subpart F (originally subpart D; 37 FR 14758, July 25, 1972), the FAA continued its long-standing policy that corporations may operate their aircraft under part 91. The FAA allowed for different arrangements in the loan,

exchange, and sharing of the aircraft. Current § 91.501(b)(4) allows a person to operate his or her aircraft "for his personal transportation, or the transportation of his guests when no charge, assessment, or fee is made for the transportation." Current § 91.501(b)(5) allows for the carriage of "officials, employees, guests, and property of a company on an airplane operated by that company \* \* \* when the carriage is within the scope of, and incidental to, the business of the company \* \* \* Current § 91.501(b)(6) allows for time-sharing arrangements, interchange agreements, and joint ownership arrangements. Some of these arrangements include the use of a management company that provides maintenance and other services to the owners.

A consideration for applicability under part 91 in any of these arrangements is that the corporation cannot be established solely for the purpose of providing transportation to a parent corporation, subsidiary, or other corporation. In such a case, the corporation operating the aircraft would be in the business of transportation and would have to hold an air carrier certificate under part 121 or part 135, as appropriate.

Fractional ownership programs have some of the elements of traditional management services companies, but because of the size and complexity of today's fractional ownership programs, the part 91 rules are not adequate. The part 121 and part 135 rules are not appropriate either because those rules are directed at air carriers and other entities that hold themselves out to provide transportation to the general public.

#### *Fractional Ownership Aviation Rulemaking Committee*

In October 1999, the FAA convened a special aviation rulemaking committee, the Fractional Ownership Aviation Rulemaking Committee (FOARC), pursuant to the Administrator's authority under 49 U.S.C. 106(p)(5), to address the issues surrounding the regulation of fractional ownership program operations. Pursuant to the order of October 6, 1999, that established the FOARC, the committee's objective was to "propose such revisions to the Federal Aviation Regulations and associated guidance material as may be appropriate with respect to fractional ownership programs."

The FOARC was comprised of 27 members selected by the FAA as representative of the various constituencies interested in regulation

of fractional ownership program operations. Designated advisers and counsel assisted the FOARC.

FOARC members represented on-demand charter operators, fractional ownership program managers and owners, aircraft manufacturers, corporate flight departments, traditional aircraft management companies, aircraft financing and insurance companies, and industry trade associations. Representatives of the FAA, the U.S. Department of Transportation and foreign civil aviation authorities were also included.

The FOARC met for nine days in November and December 1999. Within the FOARC's meeting schedule, two days were set aside for public hearings to provide the public an opportunity to comment or present positions on this issue. Notice of these public meetings was provided in the **Federal Register** (64 FR 66229, November 24, 1999) and through the media. The FAA reviewed and considered all material presented by participants at the public meetings. The FOARC presented its initial recommendations to the FAA on February 23, 2000. Those recommendations provided the basis of the FAA's NPRM, published in the **Federal Register** on July 18, 2001 (66 FR 37520). The comment period for the NPRM ended on November 16, 2001. The FAA is issuing this final rule, based on the recommendations of the FOARC committee and the FAA's consideration of the public comments received on the NPRM.

#### *Summary of Final Rule*

This rule establishes a new subpart K in part 91 to cover fractional ownership operations. The new Subpart K clarifies what qualifies as a fractional ownership program, clarifies who has operational control, defines operational control responsibilities, codifies many of the "best practices" now being used voluntarily in fractional ownership programs, and incorporates many of the safety standards of part 121 and part 135. By this rulemaking, the FAA establishes safety standards to maintain the safety record of current fractional ownership programs and to ensure that new fractional ownership programs will also meet a high level of safety.

In brief, new subpart K accomplishes the following:

(1) It establishes the criteria for qualifying as a fractional ownership program.

(2) It establishes that fractional owners and the management company share operational control of the aircraft and delineates operational control responsibilities.

(3) It establishes regulatory safety standards for operations under fractional ownership programs, including management operations, maintenance, training, crewmember flight and duty requirements, and others.

This rulemaking also revises certain requirements in part 135 on-demand operations. Many of the requirements in new subpart K of part 91 are based on requirements for on-demand operations in part 135. In the process of reviewing part 135 requirements, the committee and the FAA determined that some of the current part 135 requirements needed to be updated in accordance with new technology and other changes. The FOARC studied the best practices of the fractional ownership programs to determine under what circumstances part 135 operations could use those practices as an alternate means of compliance with part 135 standards. For example, FOARC recommended that on-demand operators be allowed to land at airports without weather reporting facilities, provided the flight plan includes an alternate airport that has such facilities and they carry additional fuel to fly to that alternate airport. Further, this eligible on-demand operation must provide a 2-pilot crew with increased pilot experience and that meets crew pairing standards. In addition proving test requirements for both fractional ownership programs and part 135 on-demand operations were reviewed and amended. A proving test requirement was added for fractional ownership programs and the requirement for multiple proving tests for part 135 operations was amended.

Specific requirements in subpart K and revisions to part 135 are discussed in detail in the public comment discussion that follows.

#### *Discussion of Public Comment*

The FAA received approximately 230 comments in response to the NPRM. Approximately 60 comments specifically address a concern related to noise and environmental issues at Santa Monica airport, 30 comments are from aircraft dispatchers, and 28 comments are from individual pilots. The rest of the comments are from major industry associations, aviation companies and interested individuals. The comments can be reviewed on the Internet at <http://dms.dot.gov>.

#### **Commenter Abbreviations Used in This Preamble**

ADF Airline Dispatchers Federation  
AOPA Aircraft Owners and Pilots Association

Avex The New Avex, Inc.  
 CAA Civil Aviation Authority of the United Kingdom  
 EHANAC East Hampton Airport Noise Abatement Committee  
 EJA Executive Jet Aviation, Inc.  
 Flexjet Bombardier Business Jet Solutions, Inc.  
 GAMA General Aviation Manufacturers Association  
 GM General Motors Air Transportation Section  
 IBT International Brotherhood of Teamsters, AFL-CIO  
 NATA National Air Transportation Association  
 NBAA National Business Aviation Association  
 NWJ New World Jet Corporation  
 PASS Professional Airways Systems Specialists  
 SAMA Small Aircraft Manufacturers Association  
 Teamsters Teamsters Miscellaneous and Industrial Workers Union, Local No. 284

### General Support

Several commenters express general support for the NPRM and for the work of the FOARC. Aviation Resources Management states that it fully supports the proposed rules and that the process used in their development was not only fair and impartial but was a remarkable example of accomplishment through cooperation between industry and government. Eclipse Aviation states that as a manufacturer of an aircraft that will be used extensively in fractional ownership programs, Eclipse strongly endorses the safety measures provided to the fractional customer by proposed subpart K to part 91. General Aviation Manufacturers Association (GAMA) states that as fractionally owned aircraft programs have already demonstrated their safety and efficiency while operating under part 91, it strongly supports the new rule. GAMA adds that these programs benefit the traveling public by dramatically increasing their options for air transportation and that the growth of these programs should not be hindered.

Some commenters identified specific parts of the proposed rules that they believe will be particularly effective. Robert E. Breiling Associates believes the proposed landing requirements, weather criteria for approach and departure and more realistic night operation requirements would give new flexibility to part 135 operators. These proposed requirements would not only allow them to operate to and from many other airports and runways previously not available to them. The proposed requirements would also help reduce traffic at some of the more congested airports. Alpha Flying, Inc. strongly supports the flight and duty time

requirements, and runway length and weather reporting requirements in the proposed rule. Alpha believes the proposed requirements could provide relief to charter operators who have been unnecessarily burdened operationally and economically by rules that are out-of-date. Alpha believes that weather reporting services now available, vast aircraft equipment improvements and aircraft certification rule changes that have been put in place since the runway length and weather reporting rules were written justify the proposed changes.

A flight operations manager comments that it is important that the people who developed the proposed rule actively work with the FAA to develop Handbook guidance for compliance when the proposal becomes a final rule.

*FAA Response:* The FAA appreciates the support of these commenters. In the final rule the FAA has tried to achieve the goals of FOARC, while carefully considering the comments from both supporters and those who oppose the FOARC proposals. After considering all the comments on the specific proposals and further research by FAA experts, the FAA has made some changes in the final rule. These changes and the reasons for each are discussed below under the specific topics.

In regard to implementation of the final rule, the FAA has set up an implementation team to plan for development of guidance material, inspector training, inspector assignment, and oversight and surveillance policies. The FAA plans to complete these products by the effective date of this rule. The FAA is committed to working closely with industry to implement this final rule.

### General Opposition

Most of the commenters who state general opposition to the proposed rule take the position that fractional ownership programs are essentially on-demand operations that the FAA should regulate under part 135. Generally, these commenters believe that the Committee and the FAA fail to recognize that the program manager of a fractional ownership program is essentially promoting on-demand service. In the NPRM, the program manager is the entity that sets up a fractional ownership program and that hires an individual to run the program.

Approximately 28 commenters identify themselves as pilots with fractional ownership programs, of whom at least 10 are with EJA. Most of the pilots oppose the proposed inclusion of fractional ownership in part

91. They believe the FAA should require fractional ownership programs to operate under part 135. In addition to general opposition, some pilots made specific comments that the FAA addresses under the appropriate issue or section.

The Civil Aviation Authority of the United Kingdom (CAA) states that “. . .the proposal appears to be contrary to the provisions of the Chicago Convention which defines a commercial transport operation as an aircraft operation involving transport of passengers, cargo or mail for remuneration or hire.” The French Direction Générale de l’Aviation Civile submitted a similar comment.

One commenter cites a U.S. Federal Circuit court ruling that held a fractional ownership program to be a “commercial operation” for certain tax purposes and questions how the FAA can ignore this ruling.

Jet Sales & Services, Inc., states that the preamble states no justification to require increased regulation. This commenter states that a group of aircraft owners should have the same rights and privileges as those who can afford total and individual ownership.

While not opposing the entire NPRM, the National Transportation Safety Board (NTSB) states its concern for any part 135 changes in this rulemaking. The NTSB states that it will withhold judgment about the adequacy and appropriateness of the proposed subpart K requirements until it has had the opportunity to monitor accidents, incidents, and other developments related to fractional ownership.

Some commenters state that the FAA should issue another NPRM before issuing a final rule on fractional ownership. Commenters think this is necessary for various reasons, including the size of the NPRM and the lack of balance of the FOARC.

*FAA Response:* The FAA carefully considered the question of where to place the rules governing fractional ownership programs. It studied current fractional ownership programs, finding that this segment of aviation has a very high safety record through compliance with voluntary safety standards that in many cases exceed the regulatory standards. It is the FAA’s goal in this rulemaking to maintain this safety record.

In determining the appropriate regulatory part for fractional ownership programs, the FAA recognizes that fractional ownership programs contain elements of private ownership and use of a management company that are similar to a traditional management company operation under part 91. The

role of the management company is to provide aviation expertise and services to the owner and the program manager does not hold out to the public to provide air transportation. Fractional ownership programs differ from the traditional management company model in the size and complexity of the program operations, reducing the individual owner's ability to exercise operational control. Therefore, the FAA determined that the appropriate approach is to regulate fractional ownership programs under part 91, but to define operational control responsibilities and procedures and to prescribe added safety requirements appropriate to the size and complexity of those operations. These standards mirror corporate best practices, the voluntary standards used by existing fractional ownership programs, and the regulatory standards of part 121 and 135, as appropriate. In response to the CAA and the French Direction Generale de l'Aviation Civile comments, the FAA views fractional ownership programs to be private operations and therefore not subject to the commercial transport standards and definition. A U.S. federal circuit court determined fractional ownership programs are commercial operations for tax purposes. See *Executive Jet Aviation, Inc. v. U.S.*, 125 F.2d 1463 (Fed. Cir. 1997). Tax law does not govern safety rules. The FAA considers fractional ownership programs private operations for safety and operational control purposes.

The changes made to part 135 in this rulemaking are based on a comparison of current part 135 requirements to part 91 fractional ownership and corporate programs. Part 135 was amended where safety could be maintained while offering an alternative method to achieve the same safety goal. These procedures and amendments were based in part on the best practices and demonstrated safety record of corporate aviation and fractional ownership programs.

Like the NTSB, the FAA intends to closely monitor both part 91, subpart K, and part 135 operations following the implementation of this rule to identify any trends or safety concerns related to the requirements of this rule.

Some commenters encouraged the FAA to issue a supplemental NPRM. The FAA is issuing a final rule because the changes made to the rule language are within the scope of what the FAA proposed in the NPRM. Commenters made many helpful suggestions, including suggested technical edits and cross-references, some of which the FAA has incorporated into the rule. Comments that are beyond the scope of

the NPRM, would result in a substantive change to the rules, or identify new issues are being considered for future rulemaking. The FAA has determined that it is in the public interest to publish a final rule now to establish and maintain a safety standard for fractional ownership programs.

#### Extension of Comment Period

Several commenters asked the FAA to extend the comment period to allow more time for public input. NTSB stated that the September 11, 2001, events have raised public concern about the security of air carrier operations and will likely further increase the demand for fractional ownership and the potential for safety issues associated with expanded operations. The NTSB asked for a 90-day extension of time to evaluate the proposed changes and the related safety issues. The National Business Aviation Association (NBAA) and the National Air Transportation Association (NATA) noted that since September 11, the Nation, and the aviation community in particular, have directed many resources to restore our air transportation system. NBAA and NATA requested an extra 30 days to allow all interested parties more time to prepare well-developed, thoughtful comments on the proposed regulation. An individual sought a nine-month time extension to allow the pilots affected by these proposed changes, but excluded from FOARC, to adequately review the safety implications of this NPRM and suggest changes.

*FAA Response:* In response to the commenter requests, the FAA extended the comment period to November 16, 2001 (66 FR 52878, October 18, 2001).

#### FOARC's Membership Balance

Many commenters state that the Committee did not represent all potentially interested parties. They specifically mentioned pilots, fractional owners, airports and airport community interest groups. They also wrote that publication of a Notice of Proposed Rulemaking by itself did not overcome the built in bias of the Committee.

One commenter states that the FOARC was not "fairly balanced" as required by 14 CFR 11.27 and the Federal Advisory Committee Act (FACA) because pilots did not participate in the process.

The Teamsters state that the FOARC consisted essentially of three groups. First, fractional providers who feared that they would be regulated under part 135. Second, on-demand part 135 operators that see fractional owners as running a similar operation but under less stringent, and therefore less costly,

rules. Third, corporate flight departments and their trade organizations that feared negative consequences for them if the FAA were to choose to regulate fractional operators under part 135. This commenter suggests there would have been no committee consensus without the proposed changes to part 135 that benefited persons currently operating under that part. This commenter also questions why a committee set up to address the issue of fractional ownership would have anything to do with part 135 operations. Other commenters make the same point.

NATA states that a notice of public meetings was published in the **Federal Register**. NATA also states that inferences made by some commenters to this rulemaking about "backroom" deals are misleading. The commenter points out that such inferences ignore the opportunity for public involvement in the process and the presence of DOT and FAA representatives at all FOARC meetings.

*FAA Response:* The Fractional Ownership Aviation Rulemaking Committee was established by an order issued by the FAA Administrator on October 6, 1999, pursuant to the Administrator's authority under 49 U.S.C. 106(p)(5). This section states that "The Federal Advisory Committee Act (5 U.S.C. App.) does not apply to the Council or such aviation rulemaking committees as the Administrator shall designate." Therefore the activities of the FOARC were not subject to the requirements of the Federal Advisory Committee Act. Nevertheless, the FAA balanced the makeup of the committee so that the FAA could learn the various perspectives of persons involved in fractional ownership operations and other segments of the aviation community that the proposed regulations may affect. This included part 135 operators, aircraft manufacturers, corporate flight departments, aircraft financing and insurance companies, and industry trade associations. About the issue of pilot representation, to the FAA's knowledge, only one fractional ownership program has union representatives for a portion of its pilots. Therefore, there is no single, recognized organization that could speak for fractional ownership pilots across-the-board. Nevertheless, there were individual pilots on the FOARC, representing both fractional ownership programs and part 135 operators.

In addition, as described earlier in this preamble, the FAA held a public meeting to invite the views of other interested parties. Finally, the FAA

published the NPRM and provided a public comment period in accordance with the Administrative Procedure Act. This comment period allowed all interested parties, whether they were FOARC members or not, to provide added insight, comments, and suggestions for changes to the proposal. The FAA received over 230 public comments and has carefully reviewed the many views and suggestions provided in those comments. Therefore, the FAA does not agree that this rulemaking suffered from a lack of balance or a lack of opportunity for all interested parties to express their views.

### Environment and Noise

Many commenters are concerned about the environmental and noise impacts of this proposed rule on local airports. Most of these comments (approximately 60) are from organizations and individuals in the neighborhood of the Santa Monica, CA, Airport. Commenters from the vicinity of Flying Cloud Airport in Minnesota and East Hampton Airport in New York also address this issue.

Most of these commenters state that the FAA must comply with the National Environmental Policy Act (NEPA) before proceeding to a final rule. An individual asks that the FAA conduct "an environmental assessment or environmental impact statement to fully and fairly define and disclose the environmental impacts that will flow" from the proposed rule. Santa Monica Airport, the North Westdale Neighborhood Association, the East Hampton Airport Noise Abatement Committee (EHANAC), and Friends of Sunset Park Neighborhood Association believe that the FAA should study the impact of fractional ownership on communities and schools that are near general aviation airports. Residents of Sunset Park are concerned that altering the 60 percent rule and creating subpart K will significantly increase the volume of business jet traffic, bringing with it an increase in air and noise pollution. The Los Angeles Unified School District is concerned about regulatory changes that may increase noise levels and air emissions at several of their schools underlying the approach to Santa Monica Airport.

An individual states that relaxing an existing limit on runway use and requirement for instrument flight rules (IFR) destination airport weather reporting would authorize a whole new class of airports to be opened to a new class of aircraft. This would increase noise and adversely impact the quality of the human environment for unknown numbers of individuals. This

commenter does not believe that this rulemaking qualifies for a "categorical exclusion" from the requirements of NEPA, stating that "The FAA has an affirmative obligation to disclose adverse environmental impacts that will flow from an agency action."

NATA submitted a comment in response to these comments stating that the FAA was not obligated to do an environmental assessment or prepare an environmental impact statement in situations where the FAA is promulgating safety rules that are not likely to have a significant impact on the environment. The commenter points out that the FAA is not responsible for the growth of fractional ownership programs. According to the commenter, if the rulemaking results in a greater use of small airports, this may have a positive effect because of a more efficient allocation of aircraft activity among large and small airports.

*FAA Response:* The FAA understands its obligations under NEPA and takes its responsibilities seriously. The FAA based its determination that this rulemaking qualifies for a categorical exclusion from the requirement to prepare an Environmental Assessment under NEPA on the instructions in FAA Order 1050.1D, Policies and Procedures for Considering Environmental Impacts. Appendix 4, section 4, lists issuance of "regulations, standards, and exemptions" as one of the categorically excluded actions that the FAA's Associate Administrator for Regulation and Certification may take. As with most of FAA's operating rules, any environmental impact would come not from issuing the rule, but from approving specific operations under the rules. For example, Order 1050.1D spells out how the FAA considers environmental impacts when issuing operations specifications for part 121 and part 135 operators. The FAA normally prepares an environmental assessment before issuing operations specifications for scheduled operations. For on-demand operations, an environmental assessment would not be prepared unless the proposed operation would significantly change the operating environment of the airport that serves as the home base for the operator. NEPA requires the FAA to consider the "foreseeable environmental impacts" of its actions. Therefore it is difficult for the FAA to assess impacts on destination airports for particular on-demand operators, because those destinations are unknown at the time of the approval. Similarly, for fractional ownership programs, it would be difficult to identify destination airports, since fractional owners may choose to

go to any airport. Again, the FAA can only look at the potential impacts on the home base airports. It has been determined that management specifications will be treated the same as operations specifications for NEPA purposes. Therefore, the same principles will apply.

On the weather reporting issue, the FAA does not expect a significant impact because the number of part 135 operators who can do this will be limited. The rule applies only if the airport has no weather reporting but has instrument approach procedures, the operator is authorized to conduct IFR operations, the weather is instrument meteorological conditions, and the operator meets the eligible on-demand conditions. Therefore the FAA cannot make an estimate of the number of operations that would be increased. Fractional ownership programs can currently operate into airports without weather reporting. This rulemaking imposes extra restrictions that could limit some operations.

The requirements for performance planning could potentially increase the number of airports that part 135 operators could use, but would impose limits on some part 91 fractional operations that can currently use any suitable airport runway. Under the final rule, only eligible on-demand operators under part 135 would be able to take advantage of reduced runway requirements and only under certain conditions. The changes to the performance rules will restrict some fractional ownership operations, which currently have no regulatory limits. The FAA cannot estimate the number of airports or operations that would be affected, as performance planning incorporates many variables and, because of the on-demand nature of these operations.

### FAA Oversight and Staffing

Professional Airways System Specialists (PASS) is concerned that the proposed rule would not require the necessary oversight and surveillance by FAA safety inspectors to ensure the level of safety desired. The management specifications, training manual and program managers operating manual need to be clear and approved by the Administrator so there is little controversy on what the program managers, flightcrews, maintenance personnel and fractional owners are required to do to ensure compliance with the regulations. Similarly, Style Air comments that the FAA currently does not have sufficient staff to service part 135 operators efficiently. This commenter believes that the addition of

trained inspectors should be addressed before any implementation of new regulations, and that specific procedures for FAA oversight and enforcement should be provided in the new regulations. An FAA inspector expresses concern over "how the field inspection will make a determination as to the type of operator he/she is conducting a surveillance on \* \* \*

*FAA Response:* The FAA agrees that the success of these regulations is dependent on the quality of the oversight and surveillance provided by FAA inspectors and local Flight Standards District Offices (FSDO's). Therefore the FAA has established an implementation team that is developing standards and guidance for the use of both Headquarters and field personnel who will be responsible for reviewing fractional ownership programs policies and procedures, approving training programs, and issuing management specifications. The implementation team has reviewed staffing levels and qualification standards for aviation safety inspectors and made recommendations to ensure that inspectors have the necessary knowledge, skills, and abilities to oversee fractional ownership programs. The implementation team is working with PASS on assessing these staffing needs. In addition, the team is drafting specific guidance for field offices and inspectors to provide instructions and criteria for conducting the reviews and approvals required before fractional ownership programs may operate under subpart K. The level of oversight and surveillance and inspection activities provided to specific companies will be appropriate to the size and complexity of the operations being conducted and will be comparable to that provided to part 135 on-demand operations. The FAA believes that these implementation plans and products fully address the concerns expressed by the commenters.

**Owner-Piloted Multiple-Owner Aircraft (See also § 91.1001)**

Several comments focus on how the rule would affect co-ownership arrangements of aircraft by pilots, and owner/pilot operation of aircraft.

Four commenters (Aircraft Owners and Pilots Association (AOPA), GAMA, Lawyer Pilots Bar Assoc. and NATA), state that the rule or the preamble should clearly distinguish between the multiple owner/pilot and similar arrangements that would continue to be regulated under the existing part 91 and those arrangements that would be considered fractional ownership programs and be regulated under the proposed subpart K.

NBAA states that the FAA should account for aircraft ownership mechanisms other than fractional ownership programs in the final rule. NBAA believes that any programs that do not precisely fall within the definition of fractional ownership should be subject to regulations other than subpart K. An example would be a company that provides aircraft management services for aircraft that are flown solely by the owner. NBAA is concerned that the qualifications under § 91.1001(b) would inadvertently require owner-flown shared aircraft programs that use a management company to schedule aircraft among owners to comply with subpart K, when they would be better addressed as flying clubs. NBAA provides regulatory changes that would further clarify the types of operations subject to subpart K and prevent the inadvertent application of this regulation on other ownership and service options such as flying clubs, joint ownerships, time-shares and traditional aircraft management.

Another commenter, the Small Aircraft Manufacturers Association (SAMA), notes that the proposed subpart K defines a fractional ownership program in a way that would include owner-pilot shared ownership programs in which the program manager does not offer or provide the flightcrews. According to the commenter, owner-pilot shared ownership programs that would technically meet the proposed definition of a fractional ownership program under § 91.1001(b) did not exist when the FOARC made its recommendations to FAA in early 2000. The FOARC did not hypothesize their formation and therefore did not consider their appropriate regulation. These owner-pilot shared ownership programs have since been established, generally providing piston-powered single engine airplanes, and currently are appropriately regulated under part 91, without reference to subpart F. It appears that neither the FOARC nor the FAA intended to regulate these programs under subpart K. According to the commenter, these programs are similar to flying clubs, partnerships and management services arrangements, but do not exactly match any of these traditional forms of shared aircraft ownership.

The goal of this commenter's proposed amendment is to avoid changing the regulation of owner-pilot shared ownership programs that are permissible today under part 91. Because these programs provide safety benefits, the FAA should facilitate the emergence of these forms of small aircraft ownership and operation by

clearly describing in the rule and in related guidance materials activities under such programs. This commenter suggests specific final rule preamble language that would clarify that the intent of the rule is not to cover the types of operations described by the commenter. In contrast, The New Avex, Inc., (AVEX) states that the proposal is short sighted because it excludes the opportunity for individuals to share ownership of light, single-engine turboprops.

Similarly, NATA and Bombardier Business Jet Solutions, Inc., (Flexjet) understand that some systems of aircraft ownership and use have been created, or soon will be created, that involve only owners that intend to act as the pilot during the owner's use of the aircraft. Some of these programs may include elements commonly found in fractional ownership programs, such as multiple owners of an individual aircraft, a single aircraft manager, and a dry-lease pool of multiple aircraft. Although these programs may technically fit the applicability requirements of subpart K, these commenters do not believe that such programs should be subject to subpart K. According to the commenters, a program that consists solely of owners that will always be the pilots when they use their aircraft is likely to appeal to a far different owner than would the fractional ownership programs that were the focus of FOARC's and FAA's review. Such a program does not require the enhanced provisions of subpart K and would more appropriately be regulated under existing regulations.

SAMA, NATA and Flexjet believe that the fundamental difference between a pilot-owner program and fractional programs as envisioned by subpart K is that the program manager in a pilot-owner program is not responsible for providing any pilots. One of these commenters recommends excluding exclusively pilot-owner programs from subpart K by revising the definition of fractional ownership program management services in proposed § 91.1001(b)(7). Under this recommended definition, subpart K would apply if the manager provided even a single pilot to any aircraft owner. However, if one of the owners served as the pilot in all program operations, the program would not be subject to subpart K. Another commenter recommends amending § 91.1001(b)(7) to include "the offering or provision of flight crews" as well as providing related guidance material that would apply subpart K only to shared ownership programs where the program manager offers or provides the flight crew.

Similarly, AOPA states that, while there is a presumption that subpart K operations include or require a professional flight crew provided by the program manager, this is not specifically stated in the regulation. Therefore, AOPA proposes that a sixth criteria be added under § 91.1001(b)(1) to state the requirement that professional flight crew services must be provided by the program manager. In support of this sixth criteria, AOPA also proposes that § 91.1001(b)(7) be further defined to include a provision for a professional flight crew. AOPA believes that the development of subpart K did not envision or intend to regulate smaller piston powered single- and multi-engine aircraft that otherwise meet the five criteria of § 91.1001, but do not use professional program pilots and that providing a flight crew is an important distinction between a multiple aircraft ownership arrangement versus a fractional ownership program.

The Lawyer Pilots Bar Association states that the NPRM clearly intends to apply to fractional programs in which paid professional crews are employed to fly the aircraft. This Association says that the NPRM was not intended to apply to limited co-ownership arrangements of small aircraft that do not involve a management company and in which one or more of the co-owners are commercial-pilots and provide the piloting. According to this commenter, the rule is not clear whether pilots may participate as owners-pilots in subpart K fractional programs without being subject to the increased crew requirements while they are piloting their co-owned aircraft for their own personal and business transportation. The commenter urges the FAA to make the final rules of subpart K clear so that a pilot co-owner may participate in a fractional ownership program without having to meet the additional crew requirements.

Eclipse Aviation mentions that proposed subpart K sets forth very specific crew pairing, experience, flight, duty and rest time requirements, and that for the owner-pilot, many of whom will be qualified to conduct single-pilot operations, the crew pairing requirements of proposed § 91.1055 are unnecessary. Further, for the single-pilot operator, or one who chooses to utilize a second in command (SIC), either by insurance or regulatory necessity, or simply for the sake of added safety, the experience, training and testing, proficiency, flight, duty, and rest time provisions of proposed §§ 91.1053, 91.1057, 91.1059, 91.1063, 91.1065, 91.1069, 91.1081, and other related sections are overly burdensome.

Clearly, these safety provisions are appropriate for true fractional program operations. The traditional experience, training, testing, proficiency, flight, duty and rest time provisions, as well as the other safety related provisions of part 91 are sufficient for owner-operated personal or business flights.

*FAA Response:* The FAA agrees that the proposed applicability section and definitions do not adequately delineate fractional ownership programs intended to be covered by subpart K from other shared aircraft programs or aircraft management programs conducted under part 91. These include operations such as traditional management companies providing services to aircraft owners absent the dry lease exchange provision of subpart K; joint ownership, time-share, or interchange operations under § 91.501; flying clubs; or other shared aircraft ownership options. Each shared ownership arrangement should be reviewed on a case by case basis to determine the appropriate regulatory requirements.

The FAA has amended § 91.1001 to more clearly define the elements of fractional ownership programs and the aviation services provided under those programs. This includes the provision, furnishing, or contracting of crews and the training and qualification of crews and other personnel, as suggested by some of the commenters.

The FAA disagrees with comments that a pilot co-owner should be allowed to participate in a fractional ownership program without having to meet the additional crew requirements. A fractional owner who desires to act as a flight crewmember on a program flight may do so only if the owner meets the pilot experience and qualification requirements of subpart K and is designated as a crewmember for that flight. These pilot requirements are necessary to maintain the safety and integrity of the fractional ownership programs and protect the property interests of all owners in the program.

Some of the commenters on this issue address a situation in a shared aircraft arrangement where the owners do pilot their own aircraft and may use management services for scheduling and maintaining the aircraft or providing occasional pilot services such as flight instruction. These types of programs might more appropriately fit the definition of a flying club or other ownership option not subject to this rule. Likewise, traditional management companies and other management arrangements may not meet all of the definitional elements of a fractional program under subpart K, i.e., dry lease aircraft exchange arrangement,

provision of pilots and other crewmembers, etc., and therefore would not be subject to regulation under subpart K.

The FAA recognizes that some entities have marketed or otherwise referred to themselves as "fractional ownership" programs prior to this rulemaking, but do not meet all of the elements of the new regulatory definition. The FAA recommends that such programs discontinue the use of the term "fractional ownership" to avoid confusion.

#### **Runway Length Required for Landing (§§ 91.1037 and 135.385)**

GAMA, NATA, Flexjet and an individual support the proposed rule changes, stating that they would not reduce the margin of safety for operations of fractionally owned aircraft under part 91 or operations under part 135. The proposed runway length requirements provide an adequate margin of safety for the reasons stated in the NPRM.

Spirit Aviation and NATA support the change from requiring the airplane to be capable of landing within 60 percent of the available runway length to 85 percent of the available runway length because of the advancements in technology. Spirit Aviation states that § 135.385 was promulgated before the development of pavement standards at airports and landing strips. In addition, the development of aircraft braking and other performance systems have made the 60 percent factored landing distance requirement antiquated and unnecessary. As reasons to change the requirement from 60 to 85 percent, NATA also mentions improvements in brake certification, changes in the method of calculating Aircraft Flight Manual (AFM) landing distances, and changes in landing distance information for different runway conditions contained in the AFM.

Spirit Aviation and NATA also state that the proposed changes to § 135.385 would enable part 135 operators to better compete with part 91 operators. Spirit Aviation, a part 135 operator, comments that the proposed changes would enable it to more effectively serve its clientele, as well as compete fairly with part 91 competitors. This operator argues that the experience of its pilots, as well as the quality of its training is equal if not superior to that of the corporate aviation community. Spirit Aviation claims that all aviation safety data covering the previous decade show that accident rates under part 91 and part 135 have been nearly identical.

NATA, a FOARC member, (as well as Flexjet) supports the justification

provided in the preamble for the proposed change in runway length. This commenter states that the proposed 85 percent runway length dispatch rule provides a comfortable safety margin for 91 subpart K operations and much needed relief from a redundant and unnecessary restriction for eligible part 135 on-demand operators.

NBAA and New World Jet Corporation (NWJ) support the 85 percent margin, but only under certain conditions. NBAA, a FOARC member, supports the proposal as an available planning option only under optimum conditions for both fractional aircraft ownership operations and for qualified commercial on-demand operations conducted under part 135.

NWJ notes that daylight operations, an experienced crew, and glide slope guidance on the landing runway are examples of conditions meriting the 85 percent runway margin. To maintain an even playing field and level of risk, specific guidance should be provided to the FSDO Inspectors on how to qualify operators according to these conditions. This commenter believes that without such conditions some operators may be too aggressive when applying this rule.

The Teamsters quote from the NPRM, "Aviation safety data indicate that the landing accident rates under part 91 and part 135 during the previous twelve-year period were nearly identical." The commenter asserts that the NPRM in effect provides no justification for changing the 60 percent rule, arguing that the quoted data, if true, argues more for the safety record of part 91 operators than of part 135 operators.

One commenter states that the FOARC's proposed change to runway length does not respect the existing industry best practices regarding the use of thrust reversers. An Aircraft Flight Manual (AFM) typically determines landing distance without the use of thrust reversers. An operator under current part 91, attempting to meet minimum compliance, could land within 85 percent of the effective runway without thrust reversers installed or with the thrust reversers deferred in accordance with an MEL. But this would not be in accordance with the best practices of the fractional program industry. According to the commenter, a reputable fractional program operator would never think of dispatching a pilot into a runway with only a 15 percent margin of error without operable thrust reversers. However, the proposed rule would allow this under subpart K of part 91 and under part 135. The commenter states that several on demand air taxi operators that do not have thrust

reversers installed might require pilots to land at the minimum allowed by regulation. If air taxi operators want to land on such runways, this commenter suggests that they have the aircraft manufacturers include reverse thrust in the AFM landing data as long as such data can comply with the provisions in 14 CFR 25.125. These provisions state that aircraft manufacturers may use reverse thrust to calculate landing data if "[reverse thrust] is safe and reliable; is used so that consistent results can be expected in service; and is such that exceptional skill is not required to control the airplane."

The commenter also offers the following example: "\* \* \* when I land at KHXD I can typically stop the Cessna Citation Excel I fly in 2400 feet using reverse thrust. The AFM data indicates that the landing distance should have been 3090 feet." The commenter attributes the difference to the use of reverse thrust because he duplicated all other conditions that the AFM specifies.

Two neighborhood associations, EHANAC and Friends of Sunset Park Neighborhood Assoc., submitted comments stating that they oppose the proposed 85 percent rule for part 135 operations because they believe it will create a grave safety hazard at East Hampton Airport, which does not have runway safety areas.

Similar concerns were raised by other commenters. North Westdale Neighborhood Association and Santa Monica Airport worried about the impact of increased traffic at the Santa Monica airport and other similar small airports if the proposed changes to part 135 are imposed. These commenters state that the reduction of the landing runway length required under the 60 percent runway rule will increase access by part 135 business aircraft to thousands of additional airports and increase the weight/size capacity of existing aircraft at many general aviation airports.

One commenter states that the proposed 85 percent rule would carry a great risk because it would allow large jets to land at airports where homes and businesses, including gas stations, are only 100 feet from the runway. Another commenter states that this broad change in the regulation is being proposed without considering the environmental impact or the opinions of the general public. For example, Santa Monica Airport (SMO) has a runway with no safety areas and the runway is no more than 5,000 feet long. Under the proposed change, larger jets requiring more runway length will now be allowed to land. Even though the airport has noise restrictions, any jets that meet

the noise abatement requirements will be allowed to fly over nearby homes and businesses, stretching the parameters of safety to the limit.

PASS, an EJA pilot, and an individual mention the existence of several overruns while using a 60 percent margin as a reason to oppose the change to an 85 percent margin. One individual commenter states that currently several fractional operators utilize part 135 landing requirements (60 percent). To the best of this commenter's knowledge, each of the fractional operators and many part 135 operators have had overrun incidents utilizing the current 60 percent rule. Based upon this history, the commenter does not believe it is wise to further reduce the safety margins for required runway lengths.

An EJA pilot states that regardless of FOARC's assumptions of pilot techniques and brake wear, there are pilots who fly the airplane at speeds above  $V_{REF}$  (which is the designated landing approach speed) across the landing threshold with worn brakes. This causes a dramatic increase in landing distances, well beyond that recommended by the FOARC. The commenter concludes that there is not enough safety margin available using the 85 percent rule and recommends that the 60 percent rule be applied to fractional operators.

A pilot states that while he can fully appreciate the evidence presented by the FOARC committee for changing the "60 percent rule" to 85 percent, he has serious reservations about allowing a reduction below 85 percent as proposed §§ 135.23(r) and 135.385(g) would allow. The commenter believes that even with the stipulated Destination Airport Analysis procedures, the human factor for error will remain and is not quantifiable. Recent part 121 accidents show that landing accidents still happen under what is supposed to be more stringent regulations. The commenter states, "Let's not deny our passengers, whether he/she is a charter customer or fractional owner, the extra margin of safety that 15 percent affords."

Executive Jet Aviation, Inc., (EJA) states that the proposed rule needs to be clarified to ensure that while the Destination Airport Analysis program contained in the operations manual must be approved, the operations manual itself does not require approval in that it is an accepted document. Additionally, EJA states that the method of approval (operations specifications) should be indicated.

Kaiser Air, Inc. suggests that § 135.385 (f) (1) and (2) be amended to use consistent terminology (for example,

“still air” vs. “probable wind” and “most favorable” vs. “most suitable.”)

FAA Response: The FAA has studied the discussion in the NPRM preamble, the comments received on proposed § 91.1037 and the proposed changes to § 135.385, the background of the runway limitations for various types of operations, and the relationship between the performance rules in the certification standards and the landing and takeoff requirements in the operating rules. Based on this review, the FAA has decided to modify the proposed 85 percent requirement and to withdraw the proposal to allow a higher takeoff weight than would be permitted

under the 85 percent standard if the operator prepares an approved Destination Airport Analysis.

The FAA has determined that the arguments presented in the NPRM preamble for reducing the current part 135 safety margins indicate a misconception regarding the basis and evolution of the current landing distance requirements. The landing distance margin requirements contained in the operating rules applicable to large transport category airplanes are intended to take into account those items that are not included or are not fully addressed in the part 25 airplane type certification landing distance

requirements used to determine the landing distances provided in Airplane Flight Manuals. These factors include steady-state variables that are not required to be taken into account in the landing distances determined under part 25, differences in operational procedures and techniques used in actual operations from those used in determining the part 25 landing distances, non steady-state variables, and differences in the conditions forecast at dispatch and those existing at the time of landing. Examples of each of these categories include:

Steady-state variables	Non steady-state variables	Actual operations vs. flight test	Actual vs. forecast conditions
Runway slope .....	Wind gusts/turbulence .....	Flare technique .....	Runway or direction (affecting slope). Airplane weight.
Temperature .....	Flight path deviations .....	Time to activate deceleration devices. Flight path angle .....	Approach speed.
Runway surface condition (dry, wet, icy, texture). Brake/tire condition .....	.....	Rate of descent at touchdown .....	Environmental conditions (for example, temperature, wind, pressure altitude). Engine failure.
Speed additives .....	.....	Approach/touchdown speed .....	
Crosswinds .....	.....	Height at threshold Speed control.	

Although this is not intended to be an exhaustive list of variables to be considered, any program to reduce the current landing distance margins, for example, through the use of a Destination Airport Analysis, should address at least these items, and should be substantiated by actual operational landing data.

No evidence exists to show that the current landing distance margin required by § 135.385 was established to compensate for deficiencies in predicting landing performance in the 1930's and 1940's that have since been rectified. One of the primary difficulties in establishing a safe landing distance margin, both now and at the time the landing distance limitations were originally developed, is that it depends on forecasting the landing conditions at the time of dispatch. The landing conditions must be forecast at the time of dispatch because the landing distance limitation is applied as a limitation on the allowable takeoff weight at the time of dispatch such that a safe landing can be made at either the destination or alternate airport. Safety margins are necessary to allow for differences between the conditions forecast at the time of dispatch and the conditions existing at the time of landing.

In addition, since the actual landing distance achieved depends on pilot technique and environmental

conditions (for example, crosswinds, gusts), the safety margins must allow for variations in these parameters. Lastly, the procedures and techniques used in flight tests of transport category airplanes to determine AFM landing distances differ from those used operationally (notwithstanding the requirement in § 25.101(f) that states that “changes in the airplane’s configuration, speed, power, and thrust, must be made in accordance with procedures established \* \* \* for operation in service”). The flight tests to determine landing distances under § 25.125 are generally treated as demonstrations of the maximum performance (*i.e.*, minimum landing distance) that can possibly be obtained within the constraints of the certification requirements. Especially for large transport category airplanes, but also for many smaller transport category airplanes, the landing distance safety margins required by parts 121 and 135 are relied upon to provide realistic landing distances for use in the operating environment.

FAA policy does not permit consideration of the effect of thrust reverse in calculating landing distances. Part 25 allows means other than wheel brakes to be taken into account if that means is safe and reliable, is used so that consistent results can be expected in service, and is such that exceptional

skill is not required to control the airplane. Nevertheless, the FAA has not found thrust reversers reliable enough to allow landing distances to be based on their use. This policy provides some additional safety margin for airplanes with reversers that are operable and used in combination with (not in lieu of) maximum braking from wheel brakes and spoilers. If the FAA were to allow the use of reverse thrust as a condition for using, for example, an 85 percent factor for calculating landing distances, the result would be to assign an arbitrary performance capability to reverse thrust, which may or may not be met by different airplane/engine/reverse thrust combinations. Also, it would be inconsistent with the treatment of reverse thrust by the FAA for airplane type certification purposes, which has not allowed landing distances to be based on the use of reverse thrust.

In regard to the NPRM discussion of improved airplane certification guidelines, many of the guidelines referenced as improvements either date back to the era when the 60 percent rule was implemented or were put in place to limit the use of potentially hazardous flight test techniques to demonstrate short landing distances. For example, the limitations on approach angles and touchdown rates of descent were instituted in response to the steep approaches and hard landings used to

obtain shorter landing distances. Although that type of flight test demonstration of maximum performance is no longer considered acceptable, the methods of determining the resulting landing distance parameters used to calculate the AFM landing distances still result in the same distances as had been obtained with that type of demonstration. Therefore, although the risk in flight testing has been reduced and any further deterioration in safety margin prevented, landing distances atypical of actual operations are still being achieved under part 25. This holds true

for all part 25 airplanes, independent of size or intended type of operation. The claim that improvements in certification guidelines have reduced the need for the current part 135 (or part 121) safety margin is incorrect. The current certification guidelines for transport category airplanes were established assuming the use of the 60 percent rule, which ensures a margin of safety consistent with the number of variables and the degree of variation that might occur in actual operations. For example, in certification of one large transport category airplane, data showed that the safety margin would only allow for either a rate of sink at touchdown of

no less than 3 ft/sec, a glideslope of no less than 2 degrees, or a speed no more than about 10 percent higher than the designated approach speed. In this case, the 60 percent margin would be entirely used up for a rate of descent at touchdown of 4 ft/sec, a glideslope of 2.5 degrees, and an approach speed 5 knots higher than the no wind approach speed, all of which may be reasonably expected to occur in operational landings. A table similar to that shown in the NPRM, but highlighting issues that may result in longer landing distances, illustrates the necessity of an adequate operational safety margin:

Certification criteria	Operational consideration	Effect on safety margin
3.5 degree glideslope angle .....	2.5 to 3 degrees typical .....	Actual landing distance will be longer than calculated landing distance.
8 ft/sec touchdown rate of descent .....	2 to 4 ft/sec typical .....	Actual landing distance will be longer than calculated landing distance.
Assumes all approach speed additives bled off before reaching the 50 foot height.	5 to 10 knots exceedances not uncommon ....	Actual landing distance will be longer than calculated landing distance.
	Longer flare distance ("float") .....	Actual landing distance will be longer than calculated landing distance.
	Less than full braking effort .....	Actual landing distance will be longer than calculated landing distance.
	Delays in obtaining full braking configuration ..	Actual landing distance will be longer than calculated landing distance.
	Higher temperatures not accounted for (temperature accountability not required).	Actual landing distance will be longer than calculated landing distance.
	Downhill runway slope not accounted for (runway slope accountability not required).	Actual landing distance will be longer than calculated distance.distance
	Icy, slippery, or contaminated runway surface	Actual landing distance will be longer than calculated distance.
	Airplane heavier at time of landing than predicted at time of dispatch.	Actual landing distance will be longer than calculated distance.
	Airplane higher than 50 feet over the threshold.	Actual landing distance will be longer than calculated distance.
	Airport pressure altitude higher than predicted at time of dispatch.	Actual landing distance will be longer than calculated distance.

The NPRM preamble states that if the 60 percent requirement were necessary for part 91 operations, business jets operated under part 91 should have a higher rate of runway overshoot events than on-demand operators have under part 135. The preamble states that such a difference has not been observed, and that landing accident rates under part 91 and part 135 have been nearly identical during the previous 12-years. The preamble cites a report prepared by Robert E. Breiling Associates of Boca Raton, Florida. The report concludes, "it would appear that the 40 percent safety factor in present use for FAR 135 is excessive. A factor based on actual aircraft performance on contaminated runways with the inclusion of a 10 percent to 20 percent safety factor would be more appropriate." However, a closer look at the Breiling report reveals that 73.8 percent of all business jet accidents/incidents occurring in the

landing phase involved part 91 operations, while 26.2 percent involved part 135 operations. Accident/incident rates cannot be inferred directly from this information, however, as the number of operations conducted under these respective operating rules is not known. Additional problems in trying to draw conclusions from generalized accident statistics like these are that: (1) Many part 91 operators apply part 135 landing distance margins even though they are not required to do so by regulation, and (2) most operations are conducted on runways that are longer than the minimum length necessary to comply with the landing distance limitations. In 1985, there was a fatal landing overrun of a Lear 24, operating under part 91, at Catalina Airport on Santa Catalina Island, Avalon, California. The runway length at Catalina Airport is 3,240 feet long. Without any safety

margin, the Lear 24 needs a landing distance of 3,100 feet at the conditions present in the accident. If the 60 percent rule were applied, a landing distance of 5,167 feet would have been required. As a result of the accident, the NTSB recommended that the FAA issue an operations bulletin directing general aviation safety inspectors and accident prevention specialists to urge operators of transport category airplanes to use safety margins consistent with those required by part 135, or at least a margin consistent with the performance of the emergency brake system on the airplane. The FAA responded to the Board's safety recommendation by issuing Operations Bulletin 86-2, which described the above accident and directed general aviation safety inspectors and accident prevention specialists to take actions in accordance with the Board's recommendation. (This information appears in the current issue

of the General Aviation Safety Inspector's Handbook, Order 8700.1 Change 9, as Paragraph 19 in Volume 2.)

The NPRM notes that a reduced margin would allow a substantial expansion of opportunities for on-demand operators, particularly at airports with a single short runway. The FAA does not believe that the effect would be as large as the NPRM suggests. Although it depends on the specific airplane's performance capabilities, the takeoff distance requirements are usually more limiting than the landing distance requirements, even under the "60 percent rule." For operations predicated on the use of a single runway, a reduction in the landing distance required would not ensure the viability of an operation into an airport. The airplane may not be able to make a subsequent takeoff, or the allowable takeoff weight may be significantly below the weight at which the airplane landed. For example, in the case of the accident at Catalina Island noted previously, if the airplane had landed safely, it would not have been able to take off again at the same weight because it would have needed a longer takeoff distance than was available. Generally, unless the purpose of the flight was to drop off payload, the allowable takeoff weight will need to be higher than the weight at which the airplane landed due to the need to load additional fuel for the return trip.

Based on its consideration of the above issues, the FAA has made changes in the final rule that maintain the level of safety provided by the current 60 percent rule, while providing operators an alternative for seeking approval to use a higher percentage under certain conditions that maintain the level of safety deemed appropriate for these types of operations. The changes are as follows:

1. The FAA withdraws the proposal to allow a landing distance in excess of 85 percent of the effective runway length if appropriate planning, documented in an approved Destination Airport Analysis, shows no compromise of safety. The FAA has determined that planning for landing distances in excess of 85 percent of the effective runway length would not provide an adequate margin of safety.

2. The final rule requires that both fractional ownership programs under subpart K of part 91 and operations conducted under part 135 must, for planning purposes, show that a turbine engine powered large transport category airplane is able to make a full stop landing at the intended destination airport within 60 percent of the effective length of the runway. This maintains the safety

level provided by the current 60 percent in part 135 and codifies for fractional ownership programs the FAA's recommendation in Operations Bulletin 86-2 that general aviation operators of transport category airplanes use safety margins consistent with those required by part 135.

3. The final rule modifies the 85 percent proposal. Fractional ownership program managers under subpart K of part 91 and eligible on-demand operators under part 135 may apply for approval to plan for a full stop landing at the intended destination airport within 80 percent of the effective length of the runway if the program manager or certificate holder has an approved Destination Airport Analysis in its operating manual. The rule further modifies the alternate airport requirement and provides an 80 percent planning requirement at the alternate airport. The Destination Airport Analysis would establish additional runway safety margins to be applied when the planned landing weight would use more than 60 percent, but less than 80 percent, of the effective runway length, and would be based on analysis of such factors as pilot qualifications and experience, airplane performance data, airport facilities and topography, runway conditions, airport or area weather reporting, appropriate additional runway safety margins, if required, or any other criteria that may affect airplane performance. The Analysis must be approved by the Administrator, not just "accepted," and the operation must be authorized in the management specifications or operations specifications, as applicable.

#### Operational Control

Ten of the comments on the issue of operational control question the concept, set out in proposed §§ 91.1009 through 91.1013, that a fractional owner is in operational control of an aircraft being operated in a fractional ownership program. These commenters question the NPRM concept of fractional owner operational control from a legal, practical, or technical viewpoint, or from some combination of these viewpoints. Since a significant number of comments, many from individual dispatchers, focus on the need to have qualified dispatchers as part of the operational control team, we have treated the dispatch issue separately in the following section.

In questioning the legal basis for asserting that a fractional owner has operational control, the Teamsters cite a Federal court decision (*Executive Jet Aviation, Inc. v. The United States*) that held that for certain tax purposes

fractional ownership operators are considered to be commercial rather than non-commercial operations.

Many of the negative comments on the issue of operational control, including those by PASS, cite practical and technical reasons why fractional owners cannot be considered to have operational control. Examples are:

1. The International Brotherhood of Teamsters, AFL-CIO (IBT) states that "most fractional owners know little about the aircraft, of which they own a part, and they comprehend even less the responsibilities and accountability associated with aircraft airworthiness, safety of flight issues, or the knowledge and accountability associated with the release of or the redirection of a flight for operational or safety reasons."

2. Jet Sales & Services, Inc. states "In the real world, it is naïve to think that under any circumstances the owner of the fractional share has operational control other than the scheduling of his or her itinerary. In most cases, that fractional participant has never even seen the aircraft that they own or lease."

3. The CAA states "it seems to us that, in practice, the fractional owner will have little or no involvement in the operation other than selecting a competent fractional ownership program manager."

4. Style Air states that aircraft owners who operate under part 91 "are usually familiar with who crews and maintains their airplanes" and that often these owners "are involved with the decision making process for acquisition, budgets, equipment procurement, and employee issues." Style Air states that "The fractional owner generally has no interest in the specifics of aircraft management," and that "The benefit of the fractional program is to relieve the aircraft owner of these responsibilities."

5. The Teamsters state that "the most telling of all parts of a fractional owner's lack of the most basic operational control resides in the management agreements" and that the "so-called owner of an aircraft in the program cannot even sell 'his' share of 'his' aircraft to anyone without permission of the program manager."

*FAA Response:* Fractional ownership is based on models of traditional aircraft management or corporate aviation in which an owner directly or indirectly employs an individual or entity to provide aviation expertise and services. It is also based on principles of shared aircraft operations defined in part 91. In these models the owner may or may not have the aviation expertise to conduct the operation, but retains the operational control responsibility to ensure the operation is conducted

within the scope and context of the regulations. The size and complexity of the program, the number of owners, and elements such as the dry lease aircraft exchange and aircraft and crew positioning that are unique to fractional ownership programs limit the ability of an individual owner to direct the operation. Therefore, elements and conduct of the program must be established and agreed to by the owners and implemented by regulatory requirements and contractual agreement. Further, the FAA is defining operational control responsibilities and safety standards appropriate to these operations that enable an owner to effectively exercise operational control.

The FAA disagrees with the CAA comment that the fractional owner will have little or no involvement other than selecting a competent fractional ownership program manager. An individual or a corporation has many options to meet their transportation needs. This could include airlines, charter, their own flight department or aircraft, fractional ownership, or others. Each option has benefits and limitations, including costs, operational control responsibilities, flexibility, risk levels, liability, and other factors. These criteria are weighed against the individual's operational needs to make business decisions about which form or forms of air travel best meet their requirements.

Once a person makes a decision to enter into a fractional ownership program as a transportation option, he or she then makes decisions as to the aircraft type, management company, program elements, safety compliance, and size of share to meet their individual travel needs. Moreover, fractional owners may use their own flight crew, provided they meet the requirements of the program and this rule. The fractional owner has the ultimate responsibility to ensure the safety of the operation and compliance with the rules. This regulation specifies the program requirements and assigns responsibilities for these requirements. Owners have a responsibility not only to choose a program and a program manager, but also to ensure that the tasks are completed in accordance with the regulations and the contractual agreements. The owners have a right to inspect and audit the records of program manager pertaining to the operational safety of the program and regulatory compliance. Enforcement of violations of the regulations could penalize the fractional owner, the program manager, or both, depending on the nature of the violation.

Based on the comments, the FAA amended the operational control sections to clarify operational control responsibilities and delegation of task performance. See the discussion below under §§ 91.1003 and 91.1009–91.1013.

#### **Aircraft Dispatchers**

The Airline Dispatchers Federation (ADF), Teamsters, and at least 30 individual dispatchers state that a full aircraft dispatching system, as required under part 121, is needed to ensure adequate operational control.

One individual commenter states that Executive Jet, the “founder” firm of fractional ownership, has, in the interest of the highest level of safety, instituted a dispatch and flight following system. This commenter included a list of operational control considerations (for example continuing weather evaluation, appropriate aircraft performance computations) that warrant requiring a qualified dispatcher.

ADF believes that the NPRM's greatest fault concerns operational control, defined by the FAA as the authority over initiating, conducting, and terminating a flight. Although many years of operating experience has shown that the safest aviation operations utilize positive operational control through the joint responsibility of the Aircraft Dispatcher and Pilot-in-Command (PIC), this NPRM does not require this type of operational control. As an example, perhaps one of the most important Federal Aviation Regulations governing airline operations is § 121.601(c), which requires the aircraft dispatcher, during flight, to provide the PIC any additional information that may affect the safety of the flight. This NPRM does not require this in-flight monitoring/communication for Fractional Operators.

NBAA opposes the mandatory use of FAA-certified dispatchers for fractional aircraft ownership programs. NATA states that commenters who recommend aircraft dispatchers in fractional ownership programs are not considering the safety record of these programs or the burden dispatcher requirements would place on small businesses entering the market.

According to Alpha Flying, Inc., dispatcher certification would be an unfair burden on fractional programs which already would be required to comply with requirements far beyond existing part 91 and even some part 119/135 requirements. The FAA dispatcher exam also bears no relevance to today's business and private aircraft management practices, especially those of fractional ownership. It should be noted here, again, that the practices of

existing fractional ownership programs have led to the best safety record of any segment of aviation.

*FAA Response:* The FAA agrees with the commenters that aircraft dispatchers provide benefits with respect to safety and efficiency. The FAA also supports the use of aircraft dispatchers in fractional ownership programs as a program option and safety benefit. However, the final rule does not apply a mandatory requirement for certificated aircraft dispatchers in subpart K. Certificated aircraft dispatchers and dispatch systems are currently required for part 121 domestic and flag operations. They are not required for any operation under part 91, part 135, or for supplemental operations under part 121.

The final rule requires a flight locating system in § 91.1029 of subpart K, comparable to that required in § 135.79. Section 91.1029 further requires a system for scheduling and releasing program aircraft. The size and complexity of the operation will dictate the level of sophistication and adequacy of the system. In addition § 91.1049(e) requires that the program manager ensure that trained and qualified scheduling or flight release personnel are on duty to schedule and release program aircraft during all hours that such aircraft are available for program operations. The FAA recognizes that some companies have employed certificated aircraft dispatchers to accomplish these duties, however the final rule allows the flexibility for the program manager to determine the qualification of the scheduling or release personnel as appropriate to the aircraft, size and complexity of the operation, and the geographical area served. In all cases the program must provide adequate procedures for locating each flight, if a flight plan is not filed.

#### **Night Currency (§§ 61.57 and 135.247)**

Seven commenters (two individuals, NBAA, NATA, Flexjet, Kaiser Air Inc., and General Motors Air Transportation Section (GM)) that address the proposed changes to these sections generally support the proposed changes. Kaiser questions whether the words “requires more than one pilot” relates to type design requirements or operating rule requirements. An individual commenter suggests that the “preceding six months” requirement be changed to “seven months” to cover the possibility that a pilot might, under § 135.297, take a check ride one grace month early and the following check ride one grace month late.

*FAA Response:* In response to operator safety concerns, the FAA amended § 61.57(e) on April 30, 1999, to provide an alternate means of compliance for meeting FAA's night currency requirement. This alternative allows operators to maintain currency by using both the aircraft and part 142 approved training programs.

The applicability of the alternative is unclear, however, because in order to qualify for the alternate means of compliance, a pilot must "operate more than one type of aircraft." Under this definition, operators are uncertain how to determine if a pilot "operates" more than one type of aircraft.

The change to § 61.57(e) in this final rule clarifies the existing alternative and provides a second alternate means of compliance for pilots of turbine-powered aircraft that require more than one pilot and that meet additional experience requirements. The first alternative allows pilots to maintain night currency through the performance of three takeoffs and landings to a full stop over a 6-month period. The second alternative allows pilots to maintain night currency through the performance of 6 takeoffs and landings to a full stop in a simulator training program approved under part 142 of this chapter. The FAA believes these alternatives provide an equivalent level of safety for night flying operations and that because of the similar nature of operations and aircraft used, pilots used for on-demand part 135 operations also should be allowed to maintain night recency of experience using this alternate means of compliance.

In response to the question about the meaning of "requires more than one pilot," the FAA has changed the final rule to clarify that the requirements of §§ 61.57(e)(3) and 135.247(a)(3) apply to airplanes that are *type certificated* for more than one pilot crewmember and to pilots qualifying in each airplane *type*.

The FAA has not changed the time frame for the "preceding six month" requirement to "preceding seven months" because the grace period requirement (§ 135.301(a)) does not apply to requirements tied to a preceding number of months.

### Security

NBAA, AOPA and several individual pilots point out that while FOARC and therefore the NPRM did not address security issues, this rule should make recommendations concerning potential security measures that might be adopted in the wake of September 11, 2001. NBAA recommends caution and restraint in the deployment of new security regulations. AOPA

recommends that any new security mandates for part 135 on-demand charter operations apply to operations covered under proposed subpart K.

With the focus on safeguarding commercial carriers, many experts believe that private charter and corporate aircraft are now more vulnerable than ever at small airports that have virtually no security. Small airports lack measures like security fences, lights or guards; there is no security to guard parked planes; small planes could be stolen and loaded with dangerous chemicals; small planes can also skim treetops and avoid radar detection. Yet the FAA wants to increase business operations at small airports with these new rule changes. Several other commenters also raise the security issue.

NATA does not think that this rulemaking is the appropriate situation for discussing security issues. According to the commenter, there needs to be an industry-wide, comprehensive examination of security issues.

*FAA Response:* No new security requirements were proposed in the NPRM and no security requirements have been added to the final rule, because that would be outside the scope of this rulemaking. However, the FAA is working with the Transportation Security Administration, aviation associations, and airports to improve security procedures for general aviation and in the areas of airports that serve general aviation. Any new security requirements that would apply to fractional ownership programs would be issued by the Transportation Security Administration.

### International Operations

NATA and Flexjet describe a problem concerning international operations under fractional ownership when there has been a change in ownership requiring changes in aircraft registration. Because current rules prohibit operations outside the United States under a "pink slip" (temporary registration), these commenters recommend that a more formal temporary registration system be established that would allow international flight. This system could use aircraft registration designees who could function in a manner similar to Designated International Representatives and Designated Examiners.

*FAA Response:* The FAA does not agree that the registration function of the Aircraft Registry in Oklahoma City can be delegated to non-governmental persons as is done in other areas.

International law forbids the operation of an aircraft outside the U.S. without an official registration certificate, so a temporary certificate would not be acceptable. Fractional owners who wish to travel outside the U.S. must be aware of this obligation and ensure that the aircraft being used for such a flight is properly registered. There are private businesses located in Oklahoma City that assist those who need to obtain a new aircraft certificate because of a change in ownership. These services are often used when there are changes in ownership of aircraft operated by part 119 certificate holders.

### FAA: Voluntary Disclosure Reporting Program

NATA and Flexjet recommend that the FAA amend AC No. 00-58 to clarify that the FAA's voluntary disclosure program "applies to fractional ownership program managers to the same extent that it applies to certificate holders, indirect air carriers, foreign air carriers, and production approval holders."

*FAA Response:* The FAA is considering changes to Advisory Circular 00-58, but any revision will not occur until after the publication of this final rule. This topic will also be addressed in the fractional ownership implementation planning.

### Illegal Commercial Use

Marc Fruchter Aviation states that an issue not adequately addressed by the NPRM is the issue of share owners using their shares to provide illegal commercial aircraft travel for others. Fruchter Aviation suggests two additions to the rule language to address this problem. First, all solicitations for share purchases should be mandated to contain exact definitions of and explicit warnings about the legal and economic consequences of illegal commercial use of fractional share flights and the possibility of a forfeiture of insurance coverage should be detailed as well. Second, the rules should be strengthened to spell out penalties against the share owner and fractional provider should this activity occur. Significant penalties against both entities would go far to deter this practice.

*FAA Response:* The FAA agrees there is a potential for illegal commercial use of aircraft being operated under fractional ownership programs. Section 91.1005 addresses this issue. In the final rule we have retitled the section from "Owner's use of program aircraft" to "Prohibitions and limitations" and amended the text to more clearly state that a fractional owner may not use a

program aircraft to provide transportation to others for compensation or hire. In addition, we have added a new paragraph (c) to § 91.1005 addressing the sale or sublease of an aircraft interest by either a program manager or fractional owner. This paragraph would make it clear that if the sale or sublease of an aircraft interest would result in less than the minimum aircraft interest prescribed in § 91.1001(b)(10), then subpart K does not apply. Flights conducted for associated reduced share sizes are required to be conducted under part 121 or part 135, as appropriate, by a part 119 certificate holder.

Further, the FAA added a new paragraph (c) to § 91.1001 to clarify that the rules of subpart K apply to persons who engage in programs meeting the new definitions of this subpart without first obtaining management specifications under subpart K.

Any penalties for non-compliance with this rule and all other FAA rules are explained in 14 CFR part 13, subpart C, Legal Enforcement Actions. In addition, we note that any unlawful commercial operations may also be subject to enforcement action by the Office of the Secretary for violations associated with its economic licensing requirements. (See 49 U.S.C. 46101 and 46301.) Further, § 91.1013 requires each owner to sign an acknowledgment of the fractional owner's operational control responsibilities, including compliance with management specifications and applicable regulations and penalties for non-compliance.

#### **Over-water Operations (§§ 91.509 and 135.167)**

Several comments were received on the proposal to revise part 91 and part 135 equipment requirements for over-water operations.

NATA, Flexjet, and a flight operations manager state that they support the revision because the proven reliability of turbine engines shows that there would be no compromise of safety.

Columbia Helicopters supports the provisions for part 91 because of the altitude requirement, but not for part 135. According to the commenter, the current part 135 provisions are for "extended over-water operations," which is defined in 14 CFR part 1. (The definition in part 1 for "extended over-water operations" for aircraft other than helicopters is more than 50 nautical miles from the nearest shoreline; for helicopters it is more than 50 nautical miles from the nearest shoreline or from an offshore heliport structure.) The commenter states that the revision would make an exception to the part 1

definition and that such an exception should be done by exemption. The commenter believes that the change will jeopardize lives because any survivors of a ditching would have no means of surviving in the water until they are rescued.

Two commenters support the amendments, but want stipulations or clarifications based on the type of engine. One of these commenters would change "turbine-powered aircraft" to "turbine-powered multiengine aircraft." Since there are pressurized single engine turbine-powered aircraft in fractional programs, the commenter hopes that FOARC and the FAA did not intend to allow single engine turbine-powered aircraft to operate without appropriate survival equipment. An engine failure above flight level (FL) 250 in a multiengine turbine-powered aircraft yields a very different result than in a single engine aircraft. This commenter believes that allowing the exception for single engine turbine-powered aircraft would not provide an appropriate level of safety.

Four commenters oppose both amendments for safety reasons. Two of these commenters, an individual and an EJA Pilot, state that the recent case where an Airbus A330 had a dual engine flameout over the Atlantic Ocean because of fuel problems is a perfect example why this equipment should be on every over-water aircraft.

An EJA Pilot, one of the opposing commenters, states that it would decrease safety to allow flights beyond 50 nautical miles or 30 minutes flight time (whichever is greater), before requiring safety devices. This commenter recommends the FAA require over-water survival equipment for all flights beyond 50 nautical miles from the shoreline.

NATA points out that the proposed rule does not revise the current requirement to carry a life preserver for each occupant.

Two individual commenters believe that 30 minutes over water without safety equipment is too much time. If the plane was on fire or had other reasons for an immediate landing, the lack of a life raft could be fatal. With the addition of "whichever is greater," jet aircraft traveling in excess of 500 knots could be 250 nautical miles or greater out to sea. This exceeds the distance that rapid response search and rescue helicopters or rescue equipment could realistically be expected to deploy for search and rescue efforts. One of these commenters also states that the limit should be the same for all operators/types of operations.

The Teamsters state that the unstated reason for amending part 135 is to let part 135 charter operators "compete" with the fractional providers. Part 135 operators have traditionally been held to a higher standard of safety than a private aircraft operator. According to this commenter, the reduction in safety from the change in part 135 is solely to reach a deal with charter industry groups. The commenter states that no data support any changes to § 135.167.

PASS does not see a reason for having these special rules regarding aircraft under subpart K. This commenter believes that the part 91 rules that are in effect should stand; however, if the rule needs to be changed, then the entire rule should be changed, not just the part that applies to subpart K.

Kaiser Air, Inc. strongly supports the change to § 135.167(d) but notes that the rule does not contain the statement in the proposed rule preamble that a deviation below 25,000 feet is allowed in the interest of safety.

*FAA Response:* The FAA agrees with the safety concerns of these commenters. In the final rule, the FAA has included language in §§ 91.509(c) and 135.167(a) similar to that in § 121.339 that allows the FAA to amend management specifications or operations specifications, as applicable, to require the carriage of any or all over-water emergency equipment or to allow a fractional ownership program or on-demand operation to request a deviation for a particular over water operation. Commenters are correct that only turbine-powered multi-engine airplanes would qualify. The proposed rule was not intended to apply to helicopters; the use of the word "aircraft" instead of "airplane" in the proposed rule was in error. The specific airplane types for which an operator requests exception would need to have a reliability program under which the operator is able to demonstrate and ensure the reliability of the airplane engines. Other conditions and limitations would be imposed on the operator to ensure that safety and survivability are maintained. The FAA will develop guidance for fractional ownership programs and part 135 operations based on the guidance for part 121 operations in the Air Transportation Operations Inspectors Handbook (Order 8400.10, Volume 3, Paragraph 87).

In addition, the FAA has researched the relevant regulatory provisions and has reviewed relevant rules applicable to current air carrier operations. This research reveals that the "whichever is more" language is inconsistent with the FAA's past interpretation of the relevant regulations. Therefore, the final rule

includes the words “whichever is less” in § 91.509(b) to clarify that under the current rule the phrase “within 30 minutes flying time or 100 nautical miles” means whichever is the closest to shore.

In response to the comment about deviations in the interest of safety, it is not necessary to include that language in this rule because § 91.3(b) allows a pilot to deviate from any FAA rule to the extent required to meet an in-flight emergency requiring immediate action.

#### **IFR Takeoff, Approach and Landing Minimums (§§ 91.1039 and 135.225)**

NATA and Flexjet fully support the proposed alternative means of complying with the destination airport weather reporting facility requirements under part 135 and the proposal to apply the same requirements and alternatives in part 91, subpart K.

The Teamsters, a fractional pilot, and an individual question the safety of allowing operations into airports that do not have on-site weather reporting facilities. These commenters believe that this proposed change would reduce the level of safety now provided by § 135.225 and establish an inadequate level of safety for fractional owner operations.

A flight operations manager states that as proposed, every time a part 135 or fractional program flight was to depart for an airport without weather reporting, an alternate airport must be designated regardless of the current or forecast weather. The commenter states that this in many cases would require an aircraft to make unnecessary fuel stops to assume instrument flight rules (IFR) fuel reserves even if the weather were VMC (visual meteorological conditions). The commenter suggests specific language that in effect would tie the requirement more specifically to the forecast weather at a facility within 25 NM of the destination airport.

Kaiser Air questions the practicality of a PIC's ensuring that the required “visibility is maintainable for the entire length of the runway” as is required by proposed § 91.1039(e). This commenter also states that § 135.225(h) should state specifically what sections in part 91 are being referenced. Furthermore, Kaiser Air states that there is no apparent change to part 135 that specifically gives a level playing field with part 91 subpart K regarding take-off minimums found in § 91.1039(d) and (e). Kaiser believes part 135 should get relief for take-off minimums.

**FAA Response:** The FAA disagrees with commenters that question the safety of operations into airports without weather reporting facilities.

Fractional ownership operations currently have no weather reporting requirements at the destination airport. This final rule provides a safety benefit by requiring weather reporting at the destination airport or requiring that an alternate airport with weather reporting be designated. Also a current local altimeter setting must be available for both airports.

Current § 135.225(a) prohibits initiation of an instrument approach at a destination airport unless that airport has a weather reporting facility on the field. The final rule provides an alternative means of compliance for eligible part 135 on-demand operators to initiate an instrument approach at a destination airport that does not have weather reporting facilities. The on-demand operator must designate an alternate airport with weather reporting facilities, have a current local altimeter setting for both airports, and meet additional crew qualification and pairing requirements.

The FAA believes that technologies and aviation weather services have improved and been implemented to support this alternative. Further, this provides a safety benefit by allowing an operator to plan and conduct a stabilized instrument approach to an airport.

The FAA disagrees with the commenter who states that an alternate airport must be designated regardless of current or forecast weather, and that operators would need to carry additional fuel, even if the weather was VMC. This final rule provides an alternative means to enable an operator to plan and conduct a flight under IFR to a destination airport that does not have weather reporting and to initiate and conduct an instrument approach at that airport. It does not prohibit an operator from conducting a flight to that airport under VFR. Designation of an alternate airport is not required if the approach can be conducted under VFR. Section 135.213 allows the pilot to make a determination of weather conditions for operations under VFR, based on the pilot's own observations.

The FAA agrees in part with Kaiser Air on the practicality of having the pilot determine, as provided in § 91.1039(e), that the “visibility is maintained for the entire length of the runway.” For low visibility operations there may be additional criteria, such as runway lighting or markings, required for these operations. The FAA has amended the regulatory language to impose a takeoff limit of 600 feet for fractional ownership program operations, without specifying the method for determining the visibility.

Management specifications and other guidance will provide the weather reporting requirements and other criteria for determining visibility in conducting takeoffs in these conditions.

Kaiser Air is correct that a change in takeoff minimums for part 135 operations was not proposed. Since this was not proposed in the NPRM, a change to part 135 takeoff minimums and weather reporting requirements for takeoff is beyond the scope of this rulemaking.

#### **Drug and Alcohol Testing Programs (§§ 91.1047, 135.251 and 135.255)**

PASS, NWJ, Aviation Charter Services, and an individual believe that § 91.1047 individuals need to be on an FAA approved drug program (which includes testing), not just receive drug education training. PASS states that the testing and training should be documented and that a current list would be made available to the Administrator. NWJ and the individual state that not requiring a Federally mandated testing program will result in inconsistencies and a lack of standardization among fractional operations, as well as among the maintenance vendors that support them. These commenters believe that § 91.1047(c)(3) does not provide enough clarification or consistency to properly enforce the spirit of the proposed regulation.

NWJ and the individual commenter praise FOARC and the FAA for providing part 135 operators with relief from drug and alcohol testing under the provisions of §§ 135.251(c) and 135.255(c).

Two other commenters object to the proposed relaxation for emergency maintenance situations under part 135. One of the commenters states that allowing for the use of maintenance personnel not currently covered by a DOT drug and alcohol program to perform “emergency maintenance” on fractional aircraft when there are no available maintenance personnel could be open to interpretation by the FAA and could lead an operator down the wrong path.

PASS believes that there should be a procedure to re-inspect an aircraft at its next destination after emergency maintenance has been performed and that passengers should not be carried on-board the aircraft until the emergency maintenance has been inspected by a qualified mechanic.

EJA and Flexjet suggest changing “program” in the title of § 91.1047 to “education” to avoid confusion because “program” was used in the title of the

section but "education" appears within the section.

*FAA Response:* By statute, the FAA is obligated to impose the drug and alcohol testing programs on air carriers. The requirements are located in appendices I and J of part 121 and apply to air carriers under parts 121 and 135. No such statutory obligation exists for part 91 operations. Therefore, although the FAA encourages fractional ownership programs and other corporate aviation organizations to consider establishing drug and alcohol testing programs, those programs would be separate and apart from the Federally mandated testing programs. In that regard, the company testing programs may not use the forms that are required for the Federally mandated testing programs to document their testing. These forms are the Federal Drug Testing Custody and Control Form and the U.S. Department of Transportation (DOT) Alcohol Testing Form. Drug and alcohol testing programs that are not part of the Federally mandated systems must develop their own forms.

In any case, with or without a drug and alcohol testing program, all pilots must comply with § 91.17, which prohibits a person from acting or attempting to act as a crewmember of an aircraft while under the influence of drugs or alcohol.

The relief provided to part 135 operations under §§ 135.251(c) and 135.255(c) is based on a practical consideration. There have been times when it has been difficult to locate maintenance personnel who are covered by a DOT drug and alcohol program. However, the FAA agrees with PASS that there should be a follow-up inspection of any emergency maintenance performed under the authority of these sections. The FAA has determined that the appropriate timing for this inspection should be the next time the aircraft is at a location where a person who is qualified under §§ 135.251(c) and 135.255(c) is available. Sections 91.1047(d), 135.251(c), and 135.255(c) have been changed in the final rule to require the reinspection.

#### **Certificate and Management Specifications Action (§ 13.19)**

The six commenters (an individual, a flight operations manager, New World Jet/EJA, NATA, and Flexjet) who address this proposed section agree that holders of management specifications should have appeal rights comparable to those available to certificate holders under current § 13.19. Several commenters state that FAA should seek legislative authority if necessary.

*FAA Response:* The FAA has determined that legislative authority is needed to provide appeal rights for fractional ownership program managers. Therefore, the proposed changes to § 13.19 have not been included in the final rule, pending receipt of such authority.

#### **Part 91, Subpart A, Truth-in-Leasing Clause**

NATA and Flexjet state that proposed §§ 91.1009, 91.1011, 91.1013, 91.1014 and 91.1015(a)(1) would make compliance with § 91.23 duplicative and unduly burdensome for program managers and fractional owners. Since § 91.23 already exempts leases of aircraft to a certificate holder under part 121, 125, 135 or 141, NATA recommends amending § 91.23(b) to add an exception for leases under a fractional ownership program.

*FAA Response:* The FAA disagrees that §§ 91.1009 through 91.1015 adequately address the same content that is specified in § 91.23. Therefore, the FAA is not amending § 91.23 to except fractional ownership programs.

#### **Part 91, Subpart F**

PASS believes that there should be specific delineations about the use of subpart K aircraft in part 121 or 135 programs. PASS expands on this statement in its comment on proposed §§ 91.1009(b)(2) and 91.1035(c) where it states its belief that fractional aircraft should not be used for operating under parts 121 and 135. PASS states that the "only way for FAA to effectively and efficiently provide clear guidance and oversight is by ensuring separate rules for each type of operation."

*FAA Response:* It is not a unique situation for aircraft at different times to be operated under different rules. Currently, an aircraft can serve multiple operational uses, including flight instruction, aircraft rental, or air carrier operations. In all cases each operation must be conducted in accordance with the rules applicable to that operation. Therefore an aircraft that is used in a fractional ownership program under subpart K could also be used by a part 119 certificate holder in an air carrier operation provided the operator or owner meets the regulatory requirements for that operation.

The final rule includes a clarifying change in § 91.501(b)(10). The change makes it clearer that a fractional owner may not use a joint ownership arrangement specified in § 91.501(b)(6) and that, if entering into an interchange agreement under paragraph (b)(6), the exchange of equal time for the operation must be properly accounted for as part

of the total hours associated with the fractional owner's share of ownership. A joint ownership arrangement is incompatible with the definitional elements of a fractional ownership program prescribed in § 91.1001(b)(5). An interchange arrangement is permissible provided the fractional ownership program contracts permit a fractional owner to enter into an interchange agreement with a party outside the fractional ownership program.

#### **Part 91, Subpart K**

##### *Section 91.1001 Applicability*

##### **Citizenship**

One individual commenter questions the constitutionality of not requiring a fractional owner to be a citizen as required by § 119.33 for people certificated under part 119.

*FAA Response:* FAA regulations and aviation law make a distinction between the citizenship requirements for registered owners of aircraft versus certificated air carriers or commercial operators. Part 119 requires that applicants for certificates to operate under part 121 or 135 must be U.S. citizens. It is the FAA's determination in this rule that a fractional ownership program is not an air carrier or commercial operation and that the program manager is not an operator subject to part 119. Therefore the citizenship requirements of part 119 do not apply to these programs or to the program manager.

For aircraft owners, part 47 contains the requirements on citizenship for registration purposes. A foreign citizen may be an owner of a U.S. registered aircraft if he or she is a resident alien. Section 47.9 contains specific rules for corporations that are not U.S. citizens. As long as they comply with the part 47 rules, fractional owners may be foreign citizens.

##### **Two Pilot Crews**

GAMA states that when the FOARC was considering this NPRM, aircraft certificated under part 23 were not part of fractional ownership programs (as defined by the NPRM). However, safe and efficient operations of part 23 aircraft are feasible under fractional programs, and FAA should make allowances for them to operate under the proposed part 91, subpart K. However, part 23 aircraft, including some turboprops, are typically certificated to fly safely with a single pilot. GAMA therefore recommends that two pilots should not be required for part 23 aircraft to qualify for part 91, subpart K operations.

*FAA Response:* With respect to aircraft certificated under part 23, FAA believes that the deviation authority provided in § 91.1049 is adequate to cover situations where a two-pilot crew is not necessary.

#### Management Specifications

NATA and Flexjet state their belief that the FOARC intended that all fractional programs would be required to operate under part 91, subpart K, unless they elect to obtain certification under part 119. The commenters' concern is that the proposed rule language would not cover a person who is actually operating as a fractional owner but who does not apply for management specifications. The commenters recommend the addition of a new § 91.1002 that would contain language clearly stating that the rules of subpart K apply "to a person who engages in any operation governed by this subpart without appropriate management specifications."

*FAA Response:* FAA agrees with NATA and Flexjet that the intent of the NPRM was for all persons conducting fractional ownership operations to be subject to subpart K unless they elect to obtain certification under part 119. Therefore, a new paragraph (c) has been added to § 91.1001 to make it clear that the subpart applies to any person who engages in a fractional ownership operation as described and defined in § 91.1001.

#### Program Manager

NWJ and an individual believe that under § 91.1001(b)(8) an individual or individuals should be specifically designated for accountability within the fractional operator's management specifications, not just the entity. This would be similar to the part 119 requirements for required personnel that apply to on-demand part 135 operations. The commenters believe that, at a minimum, an individual designated as "Program Manager", "Director of Operations", and "Director of Maintenance" should be required positions within the fractional operators' management specifications. PASS also believes that it will be necessary to identify a Director of Maintenance (DOM), with qualifications determined by the Administrator that are based on the size, scope and complexity of the fractional ownership program. The DOM would be the focal point for all correspondence and questions between the FSDO and the program management company concerning maintenance related issues.

*FAA Response:* The FAA recognizes a need for management personnel and

individuals designated for accountability within a program. Instead of designating specific positions, program managers will be asked to identify individuals that the FAA can contact on specific issues, such as operations and maintenance, and who are authorized to sign the management specifications. However, if a fractional ownership program manager elects to maintain program aircraft using a continuous airworthiness maintenance program (CAMP), the position of Director of Maintenance would be required (*See* § 91.1413(b)(1)).

#### Minimum Fractional Ownership Share

PASS believes that § 91.1001(b)(4) should be changed so that the requirement for  $\frac{1}{16}$ th share minimum ownership includes a monetary cost for the fractional aircraft along with the minimum share requirement. For instance, an aircraft valued at over 2 million dollars could be a  $\frac{1}{16}$ th minimum share but an aircraft under 2 million dollars should be  $\frac{1}{8}$ th share as a minimum. This would help prevent the possibility of a program manager selling many shares of a 1973 Cessna 172 at low cost shares, circumventing the meaning of the fractional ownership program and actually conducting low fee air charter operations without a part 135 air charter operating certificate. Additionally, under the proposed definition a person could purchase a  $\frac{1}{17}$ th share and not be under the umbrella of fractional ownership. PASS does not believe this was the FAA's intent.

Jet Sales & Services, Inc. objects to the proposed concept of "minimum fractional ownership interest" when there are many other ways to control an asset in the dynamic U.S. business environment other than ownership, such as exclusive lease arrangements which should be given the same constructive treatment as ownership. Jet Sales states that an on-demand air charter certificate holder can lease aircraft and, in fact, that aircraft may have joint uses such as serving as private and/or corporate aircraft transportation. Also, scheduled airlines lease aircraft as well as other assets. Jet Sales believes that lease arrangements must be allowed in fractional programs.

Aviation Charter Services expresses concern that subleasing arrangements by a share owner would violate the  $\frac{1}{16}$ th requirement and that if subleasing of a share is allowed, the person subleasing should have to hold an operating certificate and follow part 135 regulations.

EJA believes that the final rule should clarify the regulatory ramifications of a

fractional ownership interest not meeting the minimum requirement of an interest equal to, or greater than, one-sixteenth of a subsonic, fixed-wing aircraft or one-thirty-second of a rotorcraft aircraft. EJA suggests that the final rule should specify that any system of aircraft exchange which meets the definition of "fractional ownership program" in all respects except that one or more of the fractional owners possess less than a "minimum fractional ownership interest" will be required to conduct program operations for such owners under appropriate air carrier regulations rather than under subpart K.

*FAA Response:* The FAA has determined that the minimum share requirement is adequate to define an ownership interest and the addition of a monetary cost does not add any value.

In response to the comments about lease arrangements, the FAA considers a long-term lease to be equivalent to an ownership interest. Therefore, leasing is allowed under subpart K. Any lease or sublease arrangement may not be smaller than the minimum  $\frac{1}{16}$ th share requirement.

The FAA agrees with the suggestion by EJA that the regulation should explain the ramifications of a fractional operation not meeting the minimum interest requirements. The regulation has been modified to add § 91.1005(c) to make it clear that fractional ownership programs with more than 16 owners per aircraft, including sublease shares that result in an ownership interest smaller than  $\frac{1}{16}$ th, must be operated by a part 119 certificate holder under part 135 or 121, as applicable.

#### Two or More Aircraft

NATA and Flexjet support the requirement for two or more airworthy aircraft as an essential element of a fractional ownership program. However, a bona fide fractional aircraft program, especially a new entrant, might only have two aircraft in the program. While this satisfies the requirement of the rule, there may be times when one of the program aircraft is temporarily unairworthy because of mechanical failure or required maintenance or inspection. Such brief and routine occurrences should not affect the ability of the program to continue to operate under subpart K. NATA and Flexjet recommend that the FAA make this clear in the Final Rule.

*FAA Response:* The FAA does not believe that a rule change is necessary since this kind of intermittent occurrence is in the course of normal business and would not be considered a violation of the two airworthy aircraft requirement. It is expected that an

aircraft would be temporarily out of service for maintenance or repair. Further, because of aircraft sales or other factors, there may be short periods when the two aircraft requirement cannot be met. A key element of a fractional ownership program is the dry lease exchange provision that will mandate that two or more aircraft be available in the long term.

#### Dry Leasing

An individual states that § 91.1002(b)(2) and (b)(7), discussing dry lease requirements without crew members and fractional ownership program management services requirements to provide aircraft, crews, maintenance, crew training and record keeping, are hard to understand and appear to be in conflict with each other.

*FAA Response:* The arrangements described in § 91.1001(b)(2) and (b)(7) ((b)(8) in final rule) are distinct and different, but they are not in conflict with each other. The dry lease arrangement described in § 91.1001(b)(2) is an agreement among fractional owners that allows them to use aircraft owned by other fractional owners within the same program. The dry lease exchange provision facilitates the use of the owners' aircraft. The program manager does not provide the aircraft, rather the program manager's role is to schedule the aircraft from within the dry lease exchange pool and to provide other aviation expertise and services to the owners, as described in renumbered paragraph (b)(8).

#### Affiliate Fractional Ownership Program

PASS believes that an affiliate fractional ownership program, as provided in § 91.1001(b)(6)(ii), should not be allowed because there would not be effective controls for FAA oversight and surveillance. FAA inspectors could not schedule inspections and surveillance efficiently. Additionally, PASS believes it would be very confusing in determining operational control of program aircraft between affiliate program management companies.

NATA and Flexjet believe that the decision about whether program managers are affiliated should be made once at the time of initial FAA approval of a program (or at the time a new program is started by an affiliated manager) at the national level by a headquarters-based FAA official who has developed an expertise in an area and who can make uniform decisions in the matter. Once the determination is made at the national level, the program management specifications should include a reference to any affiliated

program managers and there should be no revisiting of the issue without good cause.

The Teamsters disagree with the proposal to allow "affiliates" to be part of the "interchange agreement" where an individual who purchases a share of an aircraft operated by a specific program manager can now be "sold off" to an affiliate while maintaining the same rights and benefits as if he was in the original program manager's operation. The commenter believes that there is no guarantee of proportional and equal aircraft use between owners, or that an affiliate aircraft is even a fractionally owned aircraft. In response to the FAA's request for comments on this issue, the Teamsters state that this concept would not ensure that owners have legal possession, custody, and use of an affiliate aircraft. The Teamsters believe that, under the proposal, if a part 135 on-demand charter company became an affiliate, it would not have to comply with part 135 regulations when chartering out one of its aircraft to a fractional owner.

*FAA Response:* For an affiliate relationship to exist, the parties must be part of the same umbrella company and the relationship would have to be identified in the management specifications. The 40 percent holding of equity and voting power is presumed to be an adequate controlling interest to define an affiliate. Any affiliates will be identified in the management specifications and will be referenced in contractual and lease documents among the owners and the program manager. These management specifications and guidance are reviewed by FAA national and regional headquarters.

The comment that an on-demand operation under part 135 could become an affiliate to circumvent the part 135 requirements and operate under subpart K is not a correct assumption. An affiliate represents a business or corporate organizational structure and does not define the operational requirements. Each affiliate program will need to be reviewed on a case by case basis to determine if it meets the applicability of this subpart.

#### Program Manual

EJA comments that proposed § 91.1001(b)(7)(v) defines the provision of fractional ownership program management services to include the development and use of a maintenance program manual. There is no other mention of this manual in the NPRM. Proposed §§ 91.1023 and 91.1025 require only a written program operating manual. Since maintenance manuals are not required under part 135

for aircraft with less than 10 seats, EJA believes it is unlikely that the FAA intends for part 91, subpart K to require maintenance manuals for all aircraft.

*FAA Response:* The FAA agrees with the EJA comment, and has deleted the reference to a maintenance manual.

#### Section 91.1003 Management Contract Between Owner and Program Manager

EJA suggests clarifying language for paragraphs (b) and (c) of this section that would replace the phrase "program log books and maintenance records" with the phrase "log books and maintenance records maintained by the program manager."

Flexjet recommends deletion of either paragraph (b) or (c) of this section because they are duplicative.

NBAA recommends that paragraph (d) of this section be deleted because this commenter believes that the "FAA must retain full, unrestricted access to every aircraft owner of U.S.-registered aircraft, regardless of contractual arrangements designed for efficiency \* \* \*" At the same time, NBAA recommends that "in the development of inspector guidance and additional preamble mentioned, that the FAA, under ordinary circumstances but at its sole discretion, communicate primarily with the fractional program manager on issues related to program aircraft."

*FAA Response:* The FAA agrees with this suggestion that the phrase "program log books and maintenance records" should be replaced with the phrase "log books and maintenance records maintained by the program manager." This change appears in the final rule language. In addition the FAA has combined paragraphs (b) and (c) into one paragraph (b) that addresses both the right to inspect and the right to audit. The FAA has also removed the word "solely" from proposed paragraph (d) and has redesignated the paragraph as paragraph (c). Also, to clarify the FAA's relationship with the fractional owner, a new paragraph (d) has been added to state that the contract must acknowledge the FAA's right to contact the owner directly, should it choose to do so.

#### Section 91.1007 Advance Notice of Non-Program Aircraft Substitutions

Several commenters state concern with the proposed language of this section, which states that the program manager "shall make an effort to notify a fractional owner prior to the flight when a non-program aircraft is substituted for a program aircraft for the use of the fractional owner."

EJA states that the rule should be revised to make clear, as does the NPRM

preamble, that when a non-program aircraft is substituted, it must be operated by a certificate holder with the appropriate authority. EJA also suggests that the final rule should clarify that a program manager may elect to conduct a particular fractional ownership program flight for a fractional owner under part 121 or 135, assuming that the program manager is properly certificated to undertake those operations under those parts of the regulations.

PASS believes that if non-program aircraft are to be used, they should be identified in the contract and that a list of non-program aircraft should be provided to each fractional owner and to the Administrator.

The Teamsters and an individual believe that the program manager should be required to do more than just "make an effort" to notify the fractional owner.

A pilot in a fractional ownership program states that customer notification of sell-offs "when possible" clearly highlights that fractional companies need to change operational aspects of the flight to the extent that safety is compromised. Large problems occur in communication with crew and passengers. There have been continual problems where aspects of flights have been changed and either/both crew and passengers were not notified. This commenter believes customer sell-offs will compromise the safety and security of flight operations regarding many aspects of 14 CFR 61/135/121.

*FAA Response:* The FAA agrees with the commenters that the proposed § 91.1007 was not sufficiently clear. In addition, we question the practicality of the term "make an effort to notify" the fractional owner prior to the flight. However, we agree there must be a method for parties to know who is in operational control of that flight. Procedures and notification of aircraft substitution should be discussed as part of the contract between the program manager and the owner. This is done to ensure the owner knows that some flights may be conducted by an air carrier, that there is a clear understanding of who is in operational control of each flight, and to track program flight hours.

In the final rule, the section title has been changed and the section has been revised. The text of paragraph (a) has been revised to state that "Except as provided in § 91.501(b), when a non-program aircraft is used to substitute for a program flight, the non-program aircraft must be operated in compliance with part 121 or part 135." The phrase "shall make an effort" has been

removed and the revised language makes clear that when a non-program aircraft is substituted, it must be operated by a certificate holder with the appropriate authority.

New paragraph (b) makes it clear that a program manager may conduct a flight under part 121 or 135, either at his own election or at the request of a fractional owner, only if the program manager holds a part 119 certificate authorizing those operations. In this case a program manager is no longer acting as a program manager, but instead is a certificate holder who is in operational control of that flight. A fractional owner's aircraft could be used in an operation under part 121 or 135, if it is dry leased to a part 119 certificate holder and authorized in that certificate holder's operations specifications. That certificate holder must conduct the operation under the operating rules of part 121 or 135, as appropriate.

New paragraph (c) was added to ensure that a fractional owner is informed whether a flight is being conducted as a program flight or is being conducted under part 121 or part 135 of this chapter. The method and timing of such notification is to be determined between the program manager and fractional owners. Further, § 91.1027(e) requires that the program manager provide a written document to be carried on each flight stating who is in operational control of that flight and under which FAA regulations the flight is being conducted. That paragraph specifies that the document must be carried on board to the flight's destination and includes record retention requirements.

The FAA does not agree with the suggestion by PASS that if non-program aircraft are to be used, they should be identified in the contract and that a list of non-program aircraft should be provided to each fractional owner and to the Administrator. The FAA believes that this kind of scenario would be unworkable and unnecessary. However, the contract should make clear that when a program aircraft is not available, a non-program aircraft will be provided that will be operated under part 121 or 135.

*Sections 91.1009, 91.1011  
Clarification of When Owner Is in  
Operational Control and Implications of  
Owner Being in Operational Control*

PASS believes that lines of operational control need to be made clear. The safety of the aircraft lies directly with the program manager for FAA compliance. PASS states that the owner should never be in operational

control; this should remain with the Program Manager.

*FAA Response:* The FAA believes that the rule language does make clear the lines of operational control. When an aircraft is operated under subpart K on a program flight, the fractional owner for whom the operation is being conducted is in operational control and is responsible for compliance with all applicable regulations. The fact that the fractional owner has delegated certain tasks to the program manager does not relieve the fractional owner of responsibility, similar to situations where aircraft owners contract for maintenance and other required services.

*Section 91.1013 Owner's  
Understanding and Acknowledgment of  
Operational Control Responsibilities*

PASS and the Teamsters believe that the reality that fractional owners are nothing but passengers on their aircraft needs to be recognized. Fractional owners have no decision-making responsibility in the actual operation of the aircraft. The fractional ownership program manager needs to be held liable for compliance with the FAA regulations for the maintenance, aircrew, training and operation of the fractional aircraft. The degree of operational control is not equal between the fractional owners and the program managers.

An individual recommends that § 91.1013(a)(1)(iii) be stricken from the final rule because it is inappropriate, unnecessary and potentially harmful. The commenter states that the FAA's regulations are an inappropriate means of alerting members of the aviation community to the tort ramifications of their activities and states that the FAA has not done so with respect to others in the aviation community (for example, pilots, mechanics or traditional owners of aircraft).

The commenter states that this provision does not alert fractional owners to anything that has not always been true for all owners of aircraft, fractional or not. Whether a fractional owner is deemed to exercise operational control will likely continue to be based on actual control, independently of the fractional characterization of the arrangement.

The commenter states that another potential consequence of the provision is that it might be misinterpreted by the fractional management company as an indication that it is relieved of its tort duties by virtue of the owner's required acknowledgment of his responsibilities. As urged above, if the fractional arrangement causes a change to the

traditional allocation of tort liability between the owner on the one hand, and the pilot, mechanic, or other independent contractor on the other, that change results only because the owner has in fact chosen to exercise actual control. The management company should not be led to believe that its tort exposure has been diminished by the mere characterization of the arrangement as fractional, or by the owner's acknowledgment of operational control, when the true essence of the relationship is the total entrustment of all operational functions to the management company.

*FAA Response:* As stated previously, the FAA believes that the idea that each fractional owner will, at times, have operational control of an aircraft being used on his or her behalf is at the heart of the fractional ownership concept. Many of the details of the contractual relationship between a prospective or actual fractional owner and a program manager are not safety related and therefore are not a concern of the FAA. However, the FAA believes that it is important for prospective or actual fractional owners to know and understand the responsibilities they will assume as a fractional owner.

The FAA agrees that this type of requirement has not been imposed on other regulated entities. Because of the unique aspects of the fractional ownership arrangement, the number of the owners, and the varying levels of owner expertise, the FAA believes the implications of operational control, including liability risk and enforcement actions, must be clearly expressed and acknowledged by the owners. Fractional owners need to understand that when safety requirements are not met they are subject to FAA enforcement actions or liability risks. Suspension or revocation of management specifications would affect the operation of the entire fractional ownership program, impacting the program manager and all of the fractional owners in the program.

#### *Section 91.1014 Manager's Responsibility for Ensuring Compliance*

NWJ and an individual state that the proposed paragraph further demonstrates the need to designate an individual as "Program Manager" rather than an entity. They believe that, in order for a fractional ownership program manager to "ensure that its program \* \* \* (is) sufficient to ensure owner compliance \* \* \*," the accountability of an entity alone may not be sufficient. PASS believes that this paragraph should be deleted, as it confuses owner compliance with operational control.

*FAA Response:* The FAA agrees that there is a need to have a system to identify contacts within a program management company. The program operating manual required under § 91.1023 and § 91.1025 will spell out procedures and identify responsibilities. To avoid the confusion raised by the PASS comment, the FAA has inserted subheadings into the final rule so that it is clear that §§ 91.1014–91.1443 address program manager responsibilities. Furthermore, § 91.1014 has been revised to clarify the operation process and requirements for issuance of management specifications. This issuance is based on a finding that the program manager meets the applicable requirements, is properly and adequately equipped, and is able to conduct a safe operation. The section title has been changed to "Issuing or denying management specifications."

#### *Sections 91.1015, 91.1017 Management Specifications and Amending Program Manager's Management Specifications*

NBAA states that, in addition to defining the contents of the program manager's management specifications as well as the process for amending them, the FAA also must develop rules that define the management specification application process (including any information required as part of the application) and define a process to issue or deny management specifications.

NATA and Flexjet state that all fractional program managers, both existing and start-up, will be required to make application for management specifications from the FAA. However, the NPRM does not identify the process by which a prospective program manager would apply and receive management specifications. Therefore, NATA and Flexjet support clear information within the regulation specifying how application is to be made, what supporting materials must be submitted with a formal application and what criteria the FAA will use as a basis to deny or issue management specifications.

PASS believes that a list of items should be added to the management specifications, such as carrying hazardous materials, geographic operating area for fractional operations, VMC or IMC operating capabilities, navigation authorizations, and cargo carrying capabilities. PASS states that Management Specifications should be handled just as Operation Specifications are currently handled by part 135 certificate holders.

*FAA Response:* The management specification application process will be similar to the process for issuing operations specifications under part 119 for persons conducting operations under parts 121 and 135. Additional rule language has been added in § 91.1014 to make it clear that management specifications are issued to the program manager on behalf of the owners if the program meets the regulatory requirements of subpart K. The management specifications will be processed on the FAA operations specifications subsystem and will be managed by the same procedures used to manage operations specifications for air carriers operating under parts 121 and 135. The application process is referenced in the final rule and will be detailed in guidance documents. Section 91.1015(a)(10) allows the Administrator to specify additional items to be contained in management specifications. This gives the FAA and the program manager the flexibility to amend or revise the management specifications as appropriate.

#### *Section 91.1016 Confidential Information (Suggested)*

NATA and Flexjet comment that, because subpart K will require fractional owners and program managers to provide commercial and/or financial information from time-to-time, they strongly recommend that certain information be protected as confidential. NATA and Flexjet recommend the addition of a separate section to address this issue.

*FAA Response:* As is the case with all Freedom of Information Act issues, the FAA will handle requests that information be treated as privileged or confidential commercial or financial information under the Department of Transportation rules in 49 CFR part 7, particularly §§ 7.13 and 7.14. Whether specific information about fractional owners (for example, names, addresses) is made available to the public by program managers will depend on the contractual relationship between these parties. Fractional owners will be identified in the files of the FAA's Aircraft Registry in Oklahoma City and these files are available to the general public. Section 91.1015(b) allows the program manager to keep a current list of fractional owners at its principal base of operations or other location and referenced in its management specifications, instead of listing all owners' names in that document. This provides for a degree of confidentiality of owner information.

### Section 91.1019 Conducting Tests and Inspections

PASS believes that the FAA needs the authority to conduct en route inspections in § 91.1019(b)(2) as in part 121 and 135. Crew coordination and safe-operating procedures are paramount for the safety of the passengers. The only way that the FAA can provide effective oversight and surveillance of these types of operations is by conducting en route inspections. PASS states that there continues to be problems with Crew Resource Management, especially with the newer "Glass Cockpit" aircraft and that information overload is a constant challenge to the pilots. Surveillance of the crews will allow an unbiased evaluation of the crew performance, which in turn will validate how effective the training program is working. This will provide valuable insights that can be used to improve future training requirements. PASS recommends that this paragraph should at least be changed to include en route inspections on aircraft that require two flight crewmembers for operation of the aircraft.

EJA states that proposed § 91.1019(c) requires that each employee of a program manager that is responsible for maintaining the program manager's records must make those records available to the FAA. EJA believes that FOARC intended this requirement to apply only to safety-related records, and not generally to all documents maintained by a program manager. In a similar provision of the NPRM, the FAA used the phrase "pertaining to operational safety of the program, including all program logbooks and maintenance records" to specify which program manager records an owner has the right to inspect. EJA recommends that the quoted phrase be added to § 91.1019(c).

NWJ and an individual object to proposed § 91.1019(c) because the paragraph does not specify which records are being referenced, for example, maintenance records, pilot records. Also, the commenters believe, if such responsibility exists, the person who maintains that responsibility should be named in the management specifications.

Flexjet states that § 91.1019(b)(1) should be clarified to state that the Management Specifications may be maintained not only at its principal base of operations, but also at a place approved by the Administrator, as is provided in §§ 91.1015(e) and 91.1027(a).

*FAA Response:* The FAA agrees with the concern raised by EJA but believes the language suggested by EJA is too narrow. The records that must be made available to the Administrator would be any records required by or necessary to demonstrate compliance with subpart K.

The FAA disagrees with the recommendation by PASS to require en route inspections for fractional program operations. The complexities of the operation precludes scheduling en route inspections. This is similar to the philosophy applied to on demand part 135 operations. En route inspections are only required for commuter operations and are not required as part of the national work program for on demand operations. Furthermore, the FAA has other means of effectively surveilling the operation, including acceptance and approval of procedures, manuals, and training programs. As part of its implementation strategy, the FAA is developing a work program for fractional ownership operations that mirrors the national guidelines for surveillance and inspection of part 135 on demand operations. The FAA also disagrees with the suggestion made by NWJ that a person responsible for the records should be named in the management specifications. The operations manual will define personnel responsibilities.

The FAA agrees with the suggestion by Flexjet and has modified the final rule so that paragraph (b)(1) permits the management specifications to be maintained at the program manager's principal place of business or at a place approved by the Administrator.

### Section 91.1021 Internal Safety Reporting

PASS believes that fractional owners should be added to proposed § 91.1021(b) and required to respond to an aviation incident/accident.

Flexjet currently utilizes anonymous internal safety reporting procedures for its crewmembers. Flexjet strongly supports safety reporting, and supports an environment of safety without retribution. However, Flexjet recommends that FAA implementation guidance should clarify for the FAA and the industry that, although no retribution may be taken against an employee for filing a report in accordance with this section, such a filing cannot prevent the program manager from taking corrective action in response to the underlying safety issue.

*FAA Response:* The FAA disagrees with the recommendation by PASS. The NTSB regulations provide NTSB with broad authority to get information from all persons with knowledge related to an

incident or accident. The owner has responsibility under the NTSB regulations to notify the NTSB of an incident, accident, or overdue aircraft. The accomplishment of this notification can be delegated to a program manager. The procedures required by § 91.1021(b) and included in the program operations manual establish the means for the owners to fulfill their accident response responsibilities. Therefore, FAA believes no change to the regulatory language is required.

The FAA agrees with the comment by Flexjet and would expect such corrective action should take place in response to underlying safety issues.

### Section 91.1023 Program Operating Manual Requirements

EJA states that in proposed § 91.1023(h), there is a reference to an "approved inspection program operations manual," a term that is not defined in the proposed rule. EJA thinks that this reference should be to an "approved 'aircraft inspection program,'" which is addressed in proposed § 91.1109. EJA recommends that the "approved aircraft inspection program" concept from § 91.1109 be incorporated into § 91.1023. Also in § 91.1023(h), the reference to "stations" may be confused with the term as used in part 121 or 135. EJA recommends that the term "stations" be replaced with the term "facilities."

EJA also states that program managers that are also certificated under part 121 or 135 should be able to use, for subpart K purposes, the general operations manual from those certificated operations, so long as the manual addresses differences between the operations under part 121 or 135 and the operations under part 91, subpart K. EJA recommends that §§ 91.1023 and 91.1025 be amended to provide this option.

EJA further comments that under proposed § 91.1023, the program operating manual is a document that is accepted by the FAA. However, some of the procedures contained in that manual, such as the destination airport analysis under proposed § 91.1037, must be approved by the FAA. EJA recommends that § 91.1037(c) be amended to clarify this.

PASS believes that the program operating manual should be accepted by the Administrator and the program management company held responsible for keeping it current and up-to-date. PASS also believes that if the operating manual is not in hard copy form, and is transmitted electronically, as provided under § 91.1023(g), a means must be made to ensure that the information is

current. PASS further comments that, contrary to § 91.1023(h), the program-operating manual should be carried on every aircraft in case the aircraft has to divert to another destination or flies into an airport that does not have approved maintenance services or personnel.

*FAA Response:* The FAA agrees with the recommendation by EJA that paragraph (h) should reference "approved aircraft inspection program" and has changed paragraph (h) accordingly. The FAA also agrees that the term "stations" should be changed to "facilities." The FAA agrees with EJA's comment that program managers certificated under part 119 should be able to use the general operations manual from a part 119 certificated operation if procedures are applicable to subpart K and if any differences are clearly stated. Use of a single manual for different types of operations must be authorized by the FAA in the management specifications.

The FAA agrees with the comment by EJA that manuals that are "accepted" sometimes contain certain portions that must be "approved." The FAA does not think any change to the rule is needed. The details of the procedures will be addressed in guidance documents.

The FAA agrees with PASS that the program operating manual must be acceptable to the Administrator and kept current. The FAA agrees that appropriate portions of the program operating manual must be carried on the aircraft when it is away from the principal operations base. This is reflected in §§ 91.1023(a) and (f).

#### *Section 91.1025 Program Operating Manual Contents*

NWJ and an individual state that the program operating manual should also contain the name or names of persons responsible for updating the manuals.

*FAA Response:* Section 91.1023(a) requires the program manager to keep the manual current. While the names of persons delegated to perform this function may be included in the manual, the FAA does not believe this should be mandatory.

#### *Section 91.1027 Recordkeeping*

PASS believes that the program manager should be responsible for keeping a list of qualified mechanics and repair facilities acceptable to perform maintenance and should identify and notify the Administrator of those required to follow an FAA approved drug testing program.

*FAA Response:* The program manager is required to ensure that persons who perform maintenance are qualified. The final rule allows an exception for

emergency maintenance for those otherwise qualified personnel who do not meet the drug and alcohol education provisions of § 91.1047 or the testing provisions of §§ 135.251 and 135.255.

The FAA believes it would be an administrative burden for the program manager to maintain a list of all qualified mechanics and repair facilities and to notify the Administrator of those mechanics or facilities that follow an FAA approved testing program. Instead the program manager must notify the FAA of all persons who perform emergency maintenance who do not meet the applicable drug and alcohol education or testing requirements.

In the final rule § 91.1027(a) is amended to make the terminology consistent with § 91.1015.

#### *Section 91.1029 Flight Scheduling and Locating Requirements*

PASS believes that all flights should be required to file a flight plan for all operations, visual flight rules (VFR) or IFR.

*FAA Response:* The requirement in § 91.1029 was derived from the existing requirement in part 135. The program manager must have a process for flight locating and a flight plan is one way to facilitate flight locating. In most situations subject to subpart K, additional procedures will exist. For turbo-jet operations it is expected that an IFR flight plan will be filed. The program manager must have an adequate system in place and the FAA expects that most companies will meet this requirement by filing a flight plan. For clarification the final rule § 91.1029 has been amended to add the word "adequate" to paragraphs (a) and (b).

#### *Section 91.1035 Passenger Awareness*

A flight operations manager recommends deletion of the proposed requirement that passengers be advised of the name of the entity in operational control of the flight since proposed §§ 91.1009—91.1013 have already clearly established that "the owner be advised and sign a document defining the implications of operational control."

PASS believes that if additional passengers are picked up separately, they should be briefed on emergency procedures and that all briefings should be in languages spoken by the passengers.

Atlantic Aviation Flight Services comments on what it believes is a disparity between the current part 135 regulations regarding passenger briefings and the proposed changes in the subpart K revision. Atlantic believes that these regulations should be the same regarding the content of this

regulation and when the briefings need to be accomplished. The commenter believes there is an assumption in proposed § 91.1035(g) that there is no need for a passenger to listen more than once to a briefing since he or she would be familiar with the safety aspects after one briefing. The commenter believes that if this is the case, it should apply to the part 135 regulation.

Flexjet recommends that a provision be added to authorize delegation to a flight attendant or other crewmembers of the responsibility to brief passengers.

*FAA Response:* The FAA disagrees with the commenter who recommends deletion of the proposed requirement that passengers be advised of the name of the entity in operational control of the flight. The identification of the entity having operational control is a critical aspect of the fractional ownership concept. However, paragraph (c) of § 91.1035 also requires the briefing to state whether the flight is conducted as a program flight or a commercial operation under part 121 or 135 of the regulations. The FAA is deleting this provision because there is no regulatory requirement under part 121 or 135 to state the operating rules under which the flight is being conducted.

In response to the comments on when the briefing is conducted the FAA agrees that there is an ambiguity as to whether briefings must be done before each take-off, or before a previous flight on the aircraft. The FAA is deleting proposed paragraph (g) and requiring that prior to each take-off the pilot in command must ensure that all passengers have been briefed.

The FAA does not agree that language comparable to § 91.1035(g) should be added to part 135. While there are minor language differences, both rules require that all passengers receive a briefing.

The FAA disagrees with the comment that all briefings should be conducted in languages spoken by the passengers. Briefing cards are used to supplement the oral briefing. Briefing passengers in all languages is impractical and is not required for operations under part 121 or 135.

One commenter recommends that a provision be added to allow delegating the responsibility to brief passengers. This change is not necessary because the rule already provides in paragraphs (d) and (e) that the briefing can be given by a pilot, another crewmember, or a recording.

#### *Section 91.1041 Aircraft Proving Tests (Also § 135.145)*

EJA recommends several amendments, primarily to make it clear

that an aircraft that has already had proving tests (for example, under part 121 or part 135) need not undergo further proving tests.

Jet Sales & Services, Inc., states that proving tests are not efficient and are not appropriate because they are nonproductive expenditures of funds.

Kaiser Air, Inc., is strongly in favor of the proposed change to § 135.145. Likewise, NWJ and an individual applaud the efforts of the FOARC committee and the FAA to provide qualified part 135 operators relief from costly proving runs under the provision of § 135.145(b).

*FAA Response:* Proving tests are necessary to evaluate each applicant's ability to conduct operations safely and in accordance with the applicable regulations. Proving tests consist of a demonstration of the applicant's ability to operate and maintain an aircraft new to the operator's fleet or the applicant's ability to conduct a particular kind of operation such as part 121 domestic, flag or supplemental. Current § 135.145 requires an applicant to successfully complete proving tests before the FAA may authorize the operation of each type of turbojet aircraft or each type of aircraft for which two pilots are required for operations under visual flight rules (VFR). The FAA disagrees with the comment that proving tests are not efficient or productive. The basic principle is that each company has the responsibility to show that it can operate each aircraft safely and in compliance with the requirements.

Proving tests are necessary for operations being approved under subpart K, even if the aircraft has already had proving tests under part 121 or part 135 operations, because the procedures and requirements are different and the program manager needs to prove that it can conduct subpart K operations safely and within the regulations. Where there are

similarities between the operations, the FAA will consider modifying the test requirements, including the use of non-flight table-top exercises. The FAA will consider on a case by case basis how extensive the proving tests need to be for companies that have previously approved aircraft under part 121 or 135, or for companies that have been operating safely under part 91.

In the final rule, the FAA has added language requiring validation tests for both subpart K of part 91 and part 135, codifying what is currently described in the Air Transportation Operations Inspectors Handbook (Order 8400.10, Volume 3, Chapter 9). That chapter of the Handbook describes how FAA inspectors conduct proving and validation tests to evaluate an applicant's ability to conduct operations safely and in accordance with the applicable regulations before issuing an operating certificate, adding a new aircraft to the applicant's fleet, or authorizing a new area or route. Validation tests are specifically used to evaluate requests for authorization to operate outside U.S. airspace, to add a long-range navigation system or flight navigator, to operate into a new area, to add special or unique navigation procedures, or for special performance or operational authorizations.

For fractional ownership programs under subpart K, it is necessary to add specific language on validation tests to § 91.1041, in addition to the proposed language on proving tests, in order to specify how the FAA will determine under § 91.1014 that the applicant is properly and adequately equipped and is able to provide program management services. For part 135, the new language is primarily a codification of the procedures they already go through to obtain various authorizations.

An addition to the validation test requirements has been added in final §§ 91.1041(d) and (e) and 135.145(d)

and (e) to require validation tests when a program manager or part 135 certificate holder adds to its operations an aircraft that is a new make or is of similar design to a previously approved aircraft. As a result of this final rule, such aircraft are no longer required to have proving tests. However, the FAA has determined that a validation test should be conducted to determine that the operator is capable of conducting operations safely with that aircraft and in compliance with the applicable regulatory standards. In most cases the applicant will not be required to conduct an actual flight to validate the aircraft. However, the FAA will conduct an in-depth review of the applicant's proposed procedures, training programs, manuals, facilities, and maintenance programs relevant to the new aircraft.

The FAA will determine the level of demonstration required, depending on the similarity between the previously approved airplane and the new make and model. For example, the FAA may develop scenarios for different types of conditions or events and ask the program manager or certificate holder to show how it would follow the proper procedures in reacting to such conditions or events.

For both proving tests and validation tests, the Administrator may authorize deviations from this section if the Administrator finds that special circumstances make full compliance with this section unnecessary. Also, proving tests and validation tests may be conducted simultaneously when appropriate.

The following table summarizes the differences between the current proving test and validation test requirements for part 135 and the final rule requirements for fractional ownership programs under subpart K and certificate holders under part 135:

Comparison of current and final proving and validation test requirements	Current requirements for part 135	Final rule requirements for part 135 and part 91, subpart K
Aircraft (except turbojets) for for which 2 pilots are required under VFR.	Proving test required for each aircraft unless operator has previously proved that make and similar design aircraft under part 135. Deviation authority for proving test requirement.	One time proving test required for an aircraft, except turbojets, for which 2 pilots are required under VFR. Validation test required for each additional make and similar design aircraft, unless operator has previously proved that make and similar design aircraft under applicable part. Deviation authority for proving and validation test requirement.
Turbojet aircraft .....	Proving test required for each turbojet aircraft unless operator has previously proved that make and similar design turbojet aircraft under part 135. Deviation authority for proving test requirement.	One time proving test required for a turbojet aircraft. Validation test required for each additional turbojet aircraft, unless operator has previously proved that make and similar design turbojet aircraft under applicable part. Deviation authority for proving and validation test requirement.

### Section 91.1045 *Additional Equipment Requirements*

The Teamsters comment that as proposed, this section would not require any aircraft used in a fractional ownership program to add any equipment not already required by another current regulation, for example, the requirement for GPWS and TCAS already exists for most turbojet aircraft. The commenter asks whether this section has any useful purpose other than to ensure that certain program managers do not have to retrofit their 75 Citation V Ultra turbojets with TCAS.

Dassant Aviation recommends that the final rule include compliance dates to allow sufficient time for any newly required equipment to be ordered and installed. The compliance period should correspond to the stipulated period for such equipment in part 121/135.

*FAA Response:* The intention of § 91.1045 is to ensure that fractional program aircraft have the same equipment as for the same aircraft when used for part 121 supplemental operations or for part 135 on-demand operations. While it is true that part 91 addresses GPWS and TCAS, those rules are not as stringent as the part 121 and 135 requirements. For example, § 91.221 states that any TCAS system installed must be approved by the Administrator and that if it is installed, it must be turned on and operating while the aircraft is in flight; however, it does not require the installation of TCAS equipment. The final rule has been rewritten to clarify which equipment rules apply to fractional ownership aircraft. This delineation is based on the 121/135 dividing line for nonscheduled operations. Aircraft that have more than 30 seats or a payload capacity of more than 7,500 pounds must follow the same equipment standards and applicable regulations as for supplemental operations conducted under part 121. Aircraft that have a passenger-seat configuration of 30 seats or fewer, excluding each crewmember, and a payload capacity of 7,500 pounds or less, and any rotorcraft must follow the same equipment standards and applicable regulations as for on-demand operations conducted under part 135.

The only delayed compliance time provided in the part 121 and 135 rules is for the installation of terrain awareness and warning systems, which are required by March 29, 2005. For existing fractional ownership programs the other equipment must be installed on or before the compliance date for the final rule, which will be 15 months after the date of publication in the **Federal Register**. Since many of the aircraft

currently used in fractional ownership programs already meet the requirements, the FAA does not expect this to cause undue hardship. New entrant fractional ownership programs must have the other equipment installed before they receive their management specifications.

### Section 91.1049 *Personnel*

EJA recommends inclusion of language in proposed § 91.1049(e) to clarify that scheduling or flight release personnel “are able to perform their duties.”

EJA also answered FAA’s question concerning “whether this proposal is appropriate for a single pilot operation permitted under the deviation provision contained in proposed § 91.1049.” EJA recommends that single pilot operations be addressed in the rule because if this problem is handled under deviation authority there will be “wide variation in interpretation of the regulations by the different FSDO’s throughout the country.”

The Teamsters ask if the required “staffing level” of this section (3 pilots per aircraft) has to be full-time employees, or if they can be part-time help when needed.

*FAA Response:* In response to EJA’s comment on scheduling and flight release personnel, it is the responsibility of the program manager to ensure that all personnel are trained and qualified in accordance with the program manager’s training program. The training program for scheduling and flight release personnel must be appropriate for the size and complexity of the operation.

In response to EJA’s concern about the FAA granting inconsistent deviations for single-pilot operations, the FAA is developing guidance for subpart K implementation to ensure that there is uniformity among the FSDO’s for granting such deviations. The FAA needs to consider the size, complexity, and organizational structure of the new fractional owner programs that might exist in the future. The FAA needs to have the latitude and flexibility to grant deviations when appropriate.

In response to the questions about staffing levels, program managers may use either full or part time employees, who may be either direct or contract employees. In the final rule, the FAA has changed to requirement to employ “at least three pilots” to “an adequate number of pilots” because there are so many variables and differences among fractional ownership programs that it would be difficult to enforce and would lead to an excessive number of deviation requests. The number of

employees for a particular program manager would be determined by the need to have adequate staff available so that the program manager can meet other requirements of the subpart, such as the rest and duty rules. Also, the FAA will consider the needs of program managers during temporary situations, such as when hiring the initial cadre staff for startups and for companies adding new aircraft types, or, for small companies, the time between when one pilot leaves and another one is hired.

### Section 91.1051 *Pilot Safety Background Check*

NBAA, NATA, and Flexjet state that statutory authority is needed to give them access to motor vehicle driver records and other records that a program manager would be required to access in a safety background check. Such records are normally protected by the Privacy Act; however, in 1996 the Pilot Records Improvement Act provided air carriers with the responsibility and authority to check such records when hiring pilots.

*FAA Response:* The FAA deleted paragraph § 91.1051(c), which would have required a program manager to access motor vehicle driver records. This provision may be added when the necessary legislative authority is obtained. The other background safety check requirements of § 91.1051 do not require legislative authority and remain in the final rule.

### Section 91.1053 *Flight Crew Experience*

AOPA states that the NPRM includes a requirement for flight crew experience, but uses an industry standard applicable for multi-engine turbine-powered aircraft. The operational demands and missions of smaller aircraft are different from those of turbine-powered multi-engine aircraft, yet the NPRM does not make a distinction. AOPA believes the final rule must specifically address and delineate flight crew experience needs for non-turbine powered multi-engine and single-engine aircraft. Also, AOPA comments that all of the crewmember experience requirements would only apply to those operations flown by flight crewmembers of the fractional ownership program manager under subpart K, not owner-flown flights.

AOPA recommends that the FAA include a standard for non-turbine powered multi-engine engine aircraft similar to that used in part 135. The pilot in command requirement under proposed § 91.1053 for these aircraft should be 1,200 hours. In addition AOPA recommends that these smaller aircraft operations not require a second

in command. A requirement of 500 hours should also be established for a single-engine aircraft pilot in command. AOPA states that accepting these recommendations would also require the FAA to alter the flight crewmember flight and duty time, training requirements and other areas of subpart K as appropriate.

An individual commenter notes that since the flights are not considered commercial operations and are not held out to access by the public, requiring the PIC to have an airline transport license (ATP) and a first class medical certificate would cause undue hardship. Many of the owners of fractional aircraft are pilots in their own right, and would not be able to fly their own aircraft unless they held an ATP and first class medical.

According to this commenter, requiring 1500 hours for a commercial license, an instrument rating, and a type rating (if the aircraft required a type rating) should be sufficient for this type of operation as it is much more restrictive than the current minimums for part 91 non-commercial operation in large turbine powered multi-engine aircraft (currently a private pilot certificate with a type rating and an instrument rating for non-commercial operations). According to the commenter, although some relief is provided by the proposed regulation, it is up to the local FAA FSDO offices to issue the relief, which, in practice, would be time consuming and nationally non-uniform.

Another individual commenter suggests changing the language in § 91.1053(a)(2) from "multi-engine turbine-powered" to "multi-engine turbojet powered." The current wording would require operators of light twin turbine-engine aircraft such as Beech KingAirs and Cessna Conquests to use ATP pilots, which is much more restrictive than the current part 91 requirements. Light turboprop aircraft should be included under the requirements in paragraph (a)(3). This word change would make many requests for deviations unnecessary.

*FAA Response:* While the flight time requirements for PIC's and SIC's in § 91.1053(a)(1) are the same for all sizes of aircraft, paragraphs (a)(2) and (a)(3) make a distinction between the certification and rating requirements for multi-engine turbine-powered fixed-wing and powered-lift aircraft and the certification and rating requirements for all other aircraft. In addition § 91.1053(b) provides for deviations from paragraph (a), depending on the size and scope of the operation. Although these experience requirements

are more restrictive than the current part 91 requirements, the FOARC endorsed this level of safety. The FAA believes that any person piloting a fractionally owned aircraft, whether they are a professional pilot employed by the management company or a fractional owner/pilot, must meet the requirements of § 91.1053 unless the size and scope of the operation warrant a deviation. When a person becomes a fractional owner of an aircraft that is part of a large and complex program, he or she has a responsibility to the other fractional owners to assure the safe operation of that aircraft. This is in contrast to a person who owns and operates his or her own aircraft or perhaps shares the ownership with a few other people. As explained above under "Owner-piloted Multiple-owner Aircraft," a fractional ownership program under subpart K is probably not the appropriate type of shared ownership for persons who wish to pilot their own aircraft.

#### *Section 91.1055 Pilot Operating Limitations and Pairing Requirement*

EJA believes that, as used in § 91.1055, the terms "program flight" and "program flight time" are ambiguous and not defined. The intent of the NRPM appears to require that the pilot in command and second in command have obtained the requisite 75 hours flying for the program manager that currently employs them, rather than for a previous program manager.

EJA also believes the term "type aircraft" is confusing because of the use of the term in connection with airmen and aircraft certification. EJA suggests that the final rule should clarify that the pilot must have obtained the required flight time in the make and model of that aircraft assigned, and, if a type rating is required, in that type aircraft.

*FAA Response:* The FAA agrees that the required hours of flight time should be clarified. The term "program flight time" has been changed to "flight time" to clarify that the hours may be obtained in that make and model or type aircraft (in operations under part 91, 121, 125, or 135), and are not limited to program flights (*i.e.*, flights where the fractional owner has designated the passengers or property on board) or flights for a particular program manager. Also, as suggested by EJA, the rule language has been changed to tie the number of hours to particular make and model aircraft or to a type aircraft, if a type rating is required for that aircraft.

#### **Rest and Duty Issues: General**

NBAA, NATA and Flexjet fully support the proposed flight, duty and

rest time requirements for all pilots operating fractional program aircraft. NBAA believes that this proposal provides a balanced approach for limiting pilot duty and flight times while providing maximum flexibility for aircraft and crew scheduling. NATA and Flexjet believe that these requirements should be issued by the FAA independent of any other requirements imposed by the FAA on other segments of the aviation community. They believe the resolution of those matters should not impact the regulation of fractionally-owned aircraft operated under part 91. They do not believe that the FAA should create a "one size fits all" flight, duty, and rest regulation to cover the diverse types of aircraft operations conducted under the regulations. NATA adds that because fractional ownership operations are private aircraft operations, it would not be appropriate to hold these operations to the same flight and duty-time regulations that commercial aviation operations are subject to. NATA also points out that the proposal has more restrictive rest requirements than part 121. Proposed subpart K requires 10 hours of rest with no reduction.

The EJA Master Executive Council Chairman believes that collective bargaining agreements have provided some part 121 pilots with the most sensible duty and rest conditions in the entire industry. These agreements, combined with recommendations from leading researchers in the field could form the basis of a new comprehensive set of duty and rest guidelines for all pilots regardless of the type of equipment they fly or under which regulations they operate. This should be of the very highest priority for the FAA.

The Teamsters and NWJ mention that the regulations as written do not address rest and duty issues from a crew member's perspective. One commenter notes that the current job responsibilities of a fractional crew are far different from any airline or corporate flight position, resulting in greater fatigue, pressures, and responsibilities. Fractional pilots are subject to multiple legs across different time zones, loading and unloading bags multiple times, and customer service issues, resulting in minimum (real) rest. Several time zone changes with very little consideration of their effect on the pilot combined with multiple days, bad weather, unknown airports, special airport procedures, and international flights further close the window of safety.

*FAA Response:* The FAA agrees that there are many similarities between fractional ownership operations and

other categories of aviation, such as corporate and on-demand operations, but there are also some unique aspects of fractional ownership operations, such as crew and aircraft positioning and scheduling. Currently, fractional ownership operations have no regulatory flight, duty, and rest requirements. The requirements of this final rule will apply standards comparable to those applied to on-demand operations, and go beyond those standards in specific areas, such as in applying time zone restrictions. While a company is free to establish collective bargaining agreements with its pilots, it is the inherent responsibility of the FAA to establish minimum standards that are appropriate to each type of operation. The FAA has made some changes to the proposed rule, as explained below. Also, the FAA intends to monitor the implementation of these rules and may do future rulemaking, particularly at the time that the agency develops proposed revisions to flight, duty, and rest requirements for part 121 and 135 operations.

*Single Pilot.* NATA and Flexjet believe the proposed regulation would be appropriate for single-pilot operations. In addition, the deviation authority of proposed § 91.1049 allows the FAA to authorize single-pilot operations when the FAA determines that it would be appropriate given the circumstances. The Teamsters believe the proposed rules would not be appropriate for single pilot operations.

*FAA Response:* The deviation authority in § 91.1049 for single-pilot operations is intended to allow operations with certain small aircraft certificated for one pilot. Part 135 has a similar provision for such aircraft. One of the elements in authorizing single-pilot operations will be to prevent pilot fatigue. Therefore, the rules in § 91.1059 applicable to a single pilot impose a daily flight time limit of 8 hours instead of 10 hours, which may be extended only one hour instead of two hours, because of circumstance beyond the control of the operator, such as bad weather. In addition, the deviations may provide other conditions to help prevent pilot fatigue, such as the use of an autopilot or fatigue countermeasures.

*Flight Attendants.* The EJA Master Executive Council Chair, NWJ, and Teamsters state that flight attendants should also be protected by duty and rest requirements. A flight attendant's primary duty is to provide cabin safety. Fatigue impairs their performance just as it does a pilot's. The Teamsters suggest using the part 135 flight attendant rules.

*FAA Response:* The FAA agrees with these comments and has added duty and rest requirements for flight attendants to the final rule. These requirements are based on those applicable to part 135 operations in § 135.273. However, a fractional ownership program manager has the option of following the pilot duty and rest requirements in subpart K, instead of the flight attendant requirements. Some operators prefer to schedule the entire crew under the same rules, instead of complying with different rules for the cockpit and cabin crews. In addition a fractional ownership program manager may use the flight attendant rules of part 121 or part 135, instead of those under subpart K, if authorized. This option may be most useful for program managers that conduct both part 91 and part 135 or 121 operations.

Fractional ownership operations must comply with the rest and duty requirements whenever a flight attendant is used, not just in cases when the flight attendant is a required crewmember under § 91.533 for flights with 19 or more passengers. This is necessary because whenever a qualified crewmember is on board, he or she must be rested and able to perform the duties safely.

*Research.* Four commenters (two individuals, Teamsters, and EJA Master Executive Council Chairman) are surprised that FOARC did not consider research done by NASA and others on the topic of rest and duty. One commenter thinks there is an opportunity to look outside the box to a serious solution to fatigued crews and the safety hazard that comes from this type of professional occupation.

The Teamsters note that § 91.1057 is filled with unenforceable language and in many cases goes against decades of studies conducted by NASA and others regarding duty time and rest requirements. At a time when more and more accidents are being blamed on fatigue and the FAA is finally enforcing various rest requirement regulations, FOARC proposes that the FAA ignore the research and its own definitions found throughout the FAA regulations.

The EJA Master Executive Council Chairman thinks that if the FAA is serious about "one level of safety," it should listen to the experts in the field and make consistent changes to all duty and rest regulations based on science, not politics. There should be no difference in duty and rest regulations whether one is flying under part 91, 135, or 121. The EJA Master Executive Council Chairman and Teamsters note that all humans are subject to fatigue,

regardless of the type of aircraft being flown or for whom they are flying.

IBT notes that substantial literature exists that suggests an average minimum of eight consecutive hours of sleep is required to ensure a rested state. Further, alertness is impaired by fatigue, especially at night and during multi-time zone crossings. Current thought suggests that to achieve eight hours of sleep, a crewmember needs at least ten (10) consecutive hours of rest opportunity. This provides a normal maximum duty period of 14 consecutive hours. Beyond that crews should be augmented. This commenter states that, historically, in air transport operations, eight hours has been the normal maximum flight time for a two-person crew and no rationale has been presented to change this maximum. Also 12 hours should be established as the maximum flight time for a three pilot crew. This too has been traditionally adhered to in air transport operations.

*FAA Response:* The FAA did consider the research that has been conducted on fatigue in the aviation industry. Many of the principles recited by IBT have been incorporated into the subpart K flight, duty, and rest requirements. The subpart K requirements were based on those applicable to on-demand operations in part 135 with additional requirements based on unique aspects of fractional ownership operations. In addition, the research on fatigue countermeasures will be reviewed and incorporated into the guidance for fractional ownership operations, as appropriate.

*Similarity to Parts 121/135.* A commenter believes that the flight and duty limits should be the same requirements as part 121 or 135. NWJ, Teamsters, and an individual recommend that the rest rules for fractional pilots should be the same as those for pilots operating under part 135. A commenter notes that a higher level of safety would be maintained. By voluntarily meeting these high standards, these current fractional programs have had an excellent safety record. However, this commenter has seen an erosion of this voluntary compliance to remain competitive. If the regulatory minimum were 14 CFR 135/121, the high level of safety we enjoy today will be maintained.

*FAA Response:* The FAA believes that the subpart K flight, duty, and rest requirements are comparable to part 121 and part 135 in the level of safety provided, and in addition, address some unique aspects of fractional ownership operations. In the final rule, the FAA has added a provision allowing

fractional ownership program managers to follow the applicable unscheduled part 121 or part 135 flight time limitations, duty period limitations, and rest requirements instead of the subpart K requirements. This would be particularly helpful for operators who conduct both subpart K and part 135 or part 121 operations because it would facilitate scheduling and recordkeeping for crewmembers who work under multiple types of operations. A fractional ownership program manager who wishes to follow part 135 or part 121 rules must obtain approval to do so and the approval must be included in the management specifications for that program manager.

*Section 91.1057 Flight, Duty and Rest Time Requirements*

*Section 91.1057(a)—Definitions*

**Augmented flight crew.** According to EJA, this definition does not specify the qualifications for the third pilot. This commenter uses, and believes that the FAA intends to require that program managers use, a qualified PIC on the flight deck at all times. This requires that two pilots in command be aboard the aircraft, resulting in an augmented crew that is composed of, at a minimum, a designated/qualified pilot in command, a qualified pilot in command, and a designated/qualified SIC. IBT concurs with the proposed definition, but would require a first class-type reclining chair for the pilot at rest.

**FAA Response:** The FAA agrees with these commenters. The FAA intended that the subpart K rule would treat augmented crews the same as in part 135. In the final rule, language from § 135.269 has been included to specify the crew qualifications for a three- or four-pilot crew and to provide that the aircraft must have adequate sleeping facilities.

**Calendar day.** Kaiser Air, Inc. believes the definition would be more clear using only Coordinated Universal Time and deleting “or local time.”

**FAA Response:** The FAA disagrees with this comment because the definition used in § 91.1057 is consistent with the definition for “calendar day” used in § 135.273. The main point is that the day should include 24 hours of elapsed time, regardless of time zone changes.

**Extension of normal duty.** IBT proposes that this definition be eliminated. The EJA Master Executive Council Chairman notes that this is an ambiguous definition, open to wide interpretation.

A Flight Operations Manager notes the end of the definition says “within

the planned flight time” when it should say “within the planned duty time.”

EJA extends this thought, noting that this definition in the NPRM appears to refer not only to an extension of normal duty time, but also to an extension of flight time. The phrase as defined, and as used in the flight, duty, and rest tables, should be changed to “extension of normal duty and flight time.” This commenter also suggests that the regulation provide additional examples of situations that would justify the increased duty period.

A flight operations manager notes that in published legal interpretations the FAA General Counsel consistently defines “circumstances beyond the control of the certificate holder/program manager” to include adverse weather, late passengers, mechanical delays, air traffic control delays, etc. These are all circumstances beyond the control of the operators or flight crews and should be included in the rule when implemented.

The Teamsters state that the FAA has been slowly making changes that are demanded by NTSB and researched by dozens of agencies, yet allows a definition that goes against common sense and its own recent enforcement policy.

EJA suggests “period of duty” (used in the definition of “extension of normal duty”) be changed to “duty period” (a defined term in the NPRM), to be consistent.

**FAA Response:** In response to these comments the FAA has reconsidered what flexibility is appropriate when, because of circumstances beyond the control of the program manager, a flight arrives late. The FAA has determined that program managers should be allowed to extend the flight time for a 2-pilot crew by up to 2 hours in such circumstances, but that it is not appropriate to extend the duty period or reduce the rest periods. The flight time for a 1-pilot crew operating under a deviation could be extended by 1 hour. The FAA believes that this solution provides the most flexibility for daily scheduling, while ensuring that adequate rest is provided and that duty periods of more than 14 hours are prohibited. Therefore, in the final rule, the defined term has been changed to “extension of flight time” and “period of duty” has been changed to “flight time.” The chart in § 91.1059 has been changed accordingly.

**Multi-time zone flight.** Kaiser Air, Inc. notes that this section needs more clarification. Does “crossing” include the time zone at take-off and landing? How many time zones are “crossed” from California to New York—2, 3, or 4?

What about flights that make fuel stops and are not “continuous?”

EJA mentions that “continuous” is undefined in this section. The commenter suggests including multi-time zone crossings in the same duty period, since it would be irrelevant whether a flight had been made non-stop, or with an intervening stop, where at the end of the duty day, the flight crew had crossed multiple time zones. This commenter recommends that the definition be changed to reflect this, with the suggested phrase, “a flight or multiple flights in a single duty period, the end result of which involves crossing five or more time zones in one direction.”

**FAA Response:** The FAA agrees with these commenters that the proposed definition was confusing. It has been redrafted to clarify that it is the time zone difference of 5 hours or more from the originating time zone that is of concern, because a time difference of that amount can affect a pilot’s circadian rhythm. The FOARC recommended this additional provision. The FAA notes this provision is more restrictive than part 121 and 135 and will add complexity to the matrix of flight time and rest requirements. It should also be noted that most circadian rhythm issues involve not only the number of time zones crossed, but the time of day that the duty period begins.

**Planned expanded duty.** EJA believes that this phrase appears to be used in the NPRM to refer not only to planned expanded duty, but also to an expansion of flight time. The phrase as defined, and as used in the flight, duty, and rest tables, should be changed to “planned expanded duty and flight time.” The phrase “long-range aircraft capable of exceeding 10 hours of flight” is found within “planned expanded duty,” which should be clarified to indicate long-range aircraft capable of exceeding 10 hours of non-stop flight flown in accordance with part 91. Since “planned expanded duty” is used not only in proposed § 91.1059, dealing with unaugmented crews, but also in proposed § 91.1061, dealing with augmented crews, the definition should not be limited by the phrase “unless the flightcrew is augmented by a third pilot.” That limitation is inherent in proposed § 91.1059, and would conflict with proposed § 91.1061.

The EJA Master Executive Council Chairman notes that by allowing a “planned” expansion of duty, the FAA is granting fractional program managers carte blanche approval to operate ultra-long range business jets to the limits of aircraft endurance without putting a third crewmember on board. Owing to

the costs involved, program managers will never make use of a third flight crewmember unless obligated by regulations to do so.

IBT believes the proposed definition is incomplete. This commenter concurs with the proposal provided that this term requires an augmented crew. Also, insert "cannot be scheduled" between "flight" and "unless."

*FAA Response:* The FAA is reviewing the research on pilot fatigue and the use of ultra-long range aircraft and has determined that it is premature to establish a standard for the use of such aircraft with a crew of only 2 pilots. Therefore the definition of planned expanded duty and the limits for such duty in §§ 91.1059 and 91.1061 do not appear in the final rule. Instead the FAA is applying limits for augmented crews in § 91.1061 that are similar to those in § 135.269 for unscheduled 3- or 4-pilot crews. Currently the rest and duty requirements in parts 121 and 135 do not address the use of ultra-long range aircraft. The FAA has decided to defer a decision on appropriate rest and duty requirements for the use of such aircraft by fractional ownership programs until standards for parts 121 and 135 are developed.

*Reserve and Standby.* Kaiser Air, Inc. notes that "reserve" and "standby" are defined but then do not appear elsewhere in the proposed rule language. EJA Master Executive Council Chairman and Teamsters ask how the definition of "standby" differs from "reserve" and who arbitrates the assured conflicts between pilot and program manager? Another commenter notes that these two definitions are ambiguous. Both terms require the flight crew to be in a state of readiness to fly. However the reserve status, with an unlimited time associated with it, leaves excessive room for abuse and subjects crews to unreasonable periods where the pilot must be ready to fly. This time is not counted as a duty status.

A commenter believes that time spent on standby should be considered duty time. It is impossible to ensure adequate rest while on extended periods of standby, sometimes reaching lengths of several days. Often after long periods of standby time, crews are called out at any hour of the night. This situation is dangerous.

The EJA Master Executive Council Chairman believes that reserve is duty, stating that requiring a crewmember to "hold himself or herself fit to fly," "remain within a reasonable response time of the aircraft," and "maintain a ready means whereby the flight crewmember may be contacted by the program manager" is, by definition,

duty. The commenter notes that FAA's own Chief Counsel's definition of duty reads, in part, "having a present responsibility for work." The three conditions contained in the proposed definition certainly add up to a present responsibility for work.

The Teamsters state that the reserve status definition is not adequate because it does not provide for a known, protected rest period. There is no way a pilot can be on a reserve schedule, never knowing when the call will come, and be free from fatigue at the end of a possible 16-hour duty period.

A commenter notes that these proposed rules define "reserve" as not being part of duty. What this means to a pilot is that he/she could get up at 8 AM and be on reserve all day. At the end of that day the pilot could be called and required to show up for duty and begin a 14-hour or longer duty day. In this example a pilot could be operating an aircraft with no sleep in 29 or more hours. The commenter believes that although a pilot can refuse a trip when he or she is too tired, the pilot's employer can also refuse to keep the pilot employed for turning down a "legal" trip. A commenter agrees that it is not enough to say it's the pilot's decision, when a pilot is under pressure from Chief Pilots and Directors of Flight Operations.

Three individual commenters, including a flight operations manager, propose removing the definition of reserve status. Two of these commenters note that even if reserve status is not eliminated, the amount of time that one can spend on reserve status must be defined.

The flight operations manager suggests removing "Reserve" from the proposed regulation for both 91.1057 and 135. As defined in the proposed rule "Reserve" meets the FAA definition of duty. If considered duty it defeats the intent of Reserve, and therefore should be removed. The FAA General Counsel's definitions of rest, duty and circumstances beyond the control of the operator are clear and concise and should continue to be part of this rulemaking.

According to an EJA pilot, FOARC's definition of "reserve status" needs to be changed to be included in one's duty period. This proposed definition says reserve status is considered a part of the pilot's rest period. Yet, at the same time they define rest as being "a period of time \* \* \* that is free of all responsibility for work or duty prior to commencement of, or following completion of, a duty period, and during which the flight crew member

cannot be required to receive contact from the program manager \* \* \*."

NWJ believes that incorporating the elements of extended and scheduled reserve as outlined in the NATA 135 On-Demand Concept Paper on Flight & Duty Time, would be of value. These elements empower the crew to refuse trips if they have not received sufficient sleep to safely conduct the flights.

IBT disagrees with the proposed definition and instead proposes that this term mean "the assignment of a crewmember by the program manager to a standby status from which the crewmember may be assigned to flight duty. While in such status, the crewmember has a present or prospective responsibility for flight duty assignment." Reserve standby preceding a duty period should be included in the duty period on an hour for hour basis.

*FAA Response:* As defined, the term "standby" refers to flight crewmembers who are on duty while awaiting an assignment for a flight. The requirements for standby pilots are the same as those for pilots with flight assignments. All rest and duty requirements apply to standby flight crewmembers and therefore adequate rest is ensured before the duty period begins and after the duty period is completed and the length of the duty period is limited. Reserve pilots, on the other hand, are not on assigned duty for a program manager. They are awaiting their next assignment from the program manager. The final rule clarifies that a reserve assignment is also not considered rest. Although the proposed definition evidently did not make this clear, the rest requirements apply to reserve pilots, as well as to pilots with regular flight assignments.

*Rest period.* IBT concurs with the proposed definition but would place a period after "manager" and delete the rest of the sentence.

A flight operations manager believes the proposed regulation as written is correct in that it provides that a pilot receives consecutive hours of rest rather than uninterrupted rest as mentioned in the preamble. It is very important not to define rest as an uninterrupted period so that 135 Air Carriers and Fractional Ownership Managers are able to at least contact flight crews while in rest to advise them of a future assignment.

The Teamsters believe that a good model for a definition of rest is the definition in part 135's Flight Attendant Limitations section, which is very reasonable and conforms to both scientific research and common sense. The commenter thinks that FOARC presents a definition that almost conforms to the accepted FAA

definition, but then undermines that meaning with the definitions of reserve and standby.

*FAA Response:* The FAA agrees with the first commenter and has deleted the words “for purposes of program operations” from the definition. This change helps to clarify that the program manager may not contact the crewmember for any reason during the rest period, not even to advise them of a future assignment, as suggested by the second commenter. As explained under the discussion on reserve status, there is no conflict between the requirements for reserve and rest because a flight crewmember must be taken off reserve and given a rest period before reporting for an assignment involving flight time.

#### *Section 91.1057(c)*

According to EJA, this proposed section did not define “program duty.” This commenter recommends the paragraph be amended by removing “program” and inserting “required by the program manager” after “duty.”

EJA thinks that the NPRM does not address the impact of program manager-assigned non-flying activities on the duty and rest provisions. While it is likely that FOARC and the FAA intended that this period of work may not be considered part of any rest period, the final rule should make this clear. Section 91.1057 should be amended by adding a new paragraph to read as follows: § 91.1057(k) Assignments of duty made by the program manager that do not involve flight time will not be considered part of any required rest period.

*FAA Response:* The FAA agrees with these commenters and has changed “program duty” to “duty” to clarify that the program manager may not assign any kind of duty during a required rest period.

#### *Section 91.1057(d)*

EJA believes that while this section adequately addresses the issue of a program manager deadheading a flight crewmember at the start of the duty period, it does not address the deadheading of a flight crewmember to his home base at the completion of the duty period. Because of the unpredictability of airline schedules, the program manager should be given the flexibility to use the post-duty period to deadhead flight crewmembers to their home base. Since the flight, duty, and rest provisions are safety-related provisions, and since the flight crewmember’s duty has concluded and the flight crewmember will be given all appropriate rest before the initiation of his next duty period, there are no

adverse safety consequences to excluding post-duty period deadheading to home base from these regulations.

An EJA Pilot believes the proposed definition of “local in character” needs to be qualified, so flight crewmembers are not subject to unsafe extensions to either side of their duty periods when traveling to/from the airport. Current interpretations vary greatly among supervisors as to what is considered “local,” suggesting a definitive time line. Driving to the hotel from the airport or vice versa has varied from 5 to 45 minutes.

*FAA Response:* Post-duty deadheading is included in § 91.1057(d). Program managers may deadhead flight crewmembers back to their home bases, but that time cannot be included as part of the rest period. Frequently pilots for fractional ownership programs are flown commercially to be in position for a flight assignment. Whether such a flight occurs before or after a duty period, it may not be counted as part of the rest period. The FAA is aware of the problem of “local” transportation to and from the airport to distant hotels and reminds program managers that they must allow time for crewmembers to obtain the required rest.

#### *Section 91.1057(h)*

EJA thinks that the phrase “extension of planned duty or flight time” may be confusing when used in connection with planned expanded duty.

*FAA Response:* Since the concept of planned expanded duty has been removed from the final rule, the words “duty or” have been removed from § 91.1057(h).

#### *Section 91.1059 Flight Time Limitations and Rest Requirements: One or Two Pilot Crews &*

#### *Section 91.1061 Augmented Flight Crews*

EJA states that some of the limitations in proposed §§ 91.1059 and 91.1061 should be amended to reflect the capabilities of newer, long-range business jets. For instance, while the proposed rule allows flight time up to 12 hours, the newer generation jets have a realistic range able to accommodate flight times in excess of 14 hours. To use safely the 14+ hours of potential flight time, the flight crew will conceivably require a 16–20 hour duty period. Similarly, to use safely the 16 hours of flight time, the flight crew will conceivably require up to a 20-hour duty period. To allow for this length of duty period, additional requirements must be satisfied. The minimum crew

rest period before any planned duty period of 16 or more hours should be increased from 10 hours to 18 hours. The flight crew would be limited to three scheduled landings during the 16 or more hour duty period, limiting exposure to the high workload environment of takeoffs and landings. Further, the minimum post-duty rest would be increased from 10 hours to 18 hours for 14–16 hours of flight time and 24 hours for 16 or more hours of flight time. Creating these additional requirements ensures that the flight crew will be adequately rested before and after the flight.

An EJA Pilot states that pilot fatigue has contributed to several aviation accidents, specifically American Airlines Flight 1420, which could have been avoided if the pilots had been more alert on the flight deck. The commenter believes the proposed flight, duty, and rest requirements are not safe and that we need to limit duty periods to 10 hours for a normal duty day and to 12 hours for an extended duty day. Similarly, a commenter believes that 16 hours is too long. He has worked many 14-hour days and believes that this is the maximum safe workday limit.

An individual commenter suggests rewriting § 91.1059(c) by limiting duty time to 12-hour with an extension to 14; by augmenting crews if there is more than 8 hours of flight time; and that for duty between 11 p.m. and 6 a.m., there should be a maximum flight time of 8 hours with 10 hours of duty.

IBT proposes in lieu of FOARC’s recommendations that there be no extension of the 14-hour duty day and no extension of the 8-hour flight time limit.

A commenter makes the following suggestions. First, duty times should be a maximum of 12 hours extendable to 14 hours, instead of the proposed 14 hours extendable to 16 hours. Aircrews, currently operating under similar regulations, have stated that fatigue starts to set in insidiously after this period. Second, flight time should be a maximum of 10 hours or even reduced to 8 hours to meet FAA part 121 limitations. Fractional operators are often involved in flying into and out of unfamiliar airports which requires a consistently high state of alertness and readiness. To require or set such high duty times (14 hours or greater) and flight times (10 hours or greater) places an unrealistic burden on flight crews and may compromise safety.

Kaiser Air, Inc. notes that the duty time limits in § 91.1061 appear to be a range of 14–16 hours and 16–18 hours rather than a limit. This needs

clarification since a limit would not have a range.

EJA states that "assign", as used in § 91.1059(c), should be changed to "permit" since it would not be possible to "assign" an extension of normal duty, which is, by definition, an unplanned event. For ease of use, the table should also be revised to include the one-pilot requirements addressed in paragraph (b)(1). Also, the final rule should include information in § 91.1061 on when and how an augmented rule would be used. Additionally, the table in proposed § 91.1061 should address an extension of normal duty, since this concept would apply to augmented crews, just as it applies to unaugmented crews (for example, in proposed § 91.1059).

The Teamsters suggest that § 91.1061 contain additional language to specify which aircraft can be augmented, establish per pilot limitations, and require adequate rest facilities onboard the aircraft.

IBT suggests that proposed § 91.1061 be changed to provide a maximum actual duty time of 14 consecutive hours and a maximum actual flight time of 12 hours.

*FAA Response:* As discussed above under "planned expanded duty," the FAA has reviewed the research on pilot fatigue and the use of ultra-long range aircraft and has determined that it is premature to establish a standard for the use of such aircraft with a crew of only 2 pilots. Therefore the definition of planned expanded duty and the limits for such duty in §§ 91.1059 and 91.1061 do not appear in the final rule. Instead the FAA is applying limits for augmented crews in § 91.1061 that are similar to those in § 135.269 for unscheduled 3- or 4-pilot crews.

In addition the tables have been changed in other ways in response to the comments and to make the tables consistent with the other requirements. Also, additional language has been added to § 91.1061 to specify the requirements for augmented crews. These are based on the comparable requirements in § 135.269 for unscheduled 3- and 4-pilot crews.

The FAA believes that the flight, duty, and rest requirements in the final rule are comparable to the variations suggested by several of the commenters. Following the issuance of the final rule, the FAA will closely monitor the implementation of the flight, rest, and duty rules by fractional ownership program managers, will continue to review the scientific literature on fatigue in aviation operations, and will revisit the appropriateness of these rules at the time that the FAA considers revisions to

flight, rest, and duty rules for part 121 and part 135 operations.

#### *Section 91.1063 Testing and Training*

EJA comments that proposed § 91.1063(d)(8), which defines "requalification training" to include training required because of a lapse in recurrent pilot testing requirements and instrument proficiency requirements, should also include a lapse in recurrent pilot training requirements or competency check requirements.

The Teamsters state that proposed §§ 91.1063 through 91.1115 would not be needed if the FAA simply regulated fractional operators under part 135, where most of these sections are copied from.

*FAA Response:* The FAA agrees with EJA and has changed § 91.1063(d)(8) in the final rule to specify that requalification training is necessary for crewmembers who have become unqualified by failing to comply with recurrent training, proficiency checks, or tests for pilots and with flight attendant testing requirements, if applicable, within the appropriate time period.

Although it is true that the proposed training and testing requirements for fractional ownership programs are modeled on those for on-demand operators in part 135, it is important for them to appear in part 91, subpart K, where they can be tailored to be appropriate for fractional ownership programs. As discussed above under "General Opposition," the FAA has determined that subpart K is the appropriate regulatory approach for this segment of aviation.

#### *Sections 91.1065, 91.1067, 91.1069, 135.293 and 135.297 Initial and Recurrent Pilot and Flight Attendant Testing Requirements and Instrument Proficiency Check Requirements*

NATA and Flexjet strongly support the NPRM's provisions permitting the required flight training portion of any of the pilot training or check requirements of this subpart, including the initial, transition, upgrade, requalification, differences, or recurrent training, or the accomplishment of a competency check or instrument proficiency check, to be conducted in a simulator.

EJA states that proposed §§ 91.1065(a) and 91.1069(d) should be clarified to ensure that it is understood that a written test, an oral test, or a combination of both types of test will satisfy the requirements. EJA also recommends that proposed §§ 91.1065(b) and 91.1069(e) make clear that (1) not all of the maneuvers and procedures required for the original

issuance of the particular pilot certificate are required to be included on the competency check, (2) not all of the procedures required for an air transport pilot certificate must be included on the instrument proficiency check for a pilot in command of an aircraft, and (3) not all of the procedures required for a commercial pilot certificate must be included on the instrument proficiency check for a pilot in command of a rotorcraft or a second in command of an aircraft. In keeping with FAA Policy Memorandum #183, not all maneuvers required for the original issuance need to be accomplished during an instrument proficiency check.

PASS believes that the flight crew instrument proficiency check requirements in proposed § 91.1069 should be the same as those specified for part 121 or 135 operations.

A pilot comments that a basic premise of this NPRM is the adoption of industry best practices and equivalent levels of safety. Currently, part 121 air carriers and part 91 operators, but not part 135 operators, may conduct progressive checking. That is, a maneuver successfully accomplished during training need not be repeated during a separate checking event. This commenter states that it is unclear whether subpart K makes provision for progressive checks or not. This commenter believes that allowing progressive checking for part 135 and subpart K would embrace industry best practices (part 91), enhance pilot training and safety, and provide appropriate equivalent standards between parts 121 and 135.

*FAA Response:* The FAA agrees with the EJA comment on §§ 91.1065(a) and 91.1069(d) and has changed the final rule language in both sections to make it clear that the required tests can be either written or oral, or a combination of written or oral.

In response to PASS's comment on instrument proficiency check requirements, the proposed and final rule language does impose the same instrument proficiency check requirements as for parts 121 and 135, except that the requirements for SIC's are more restrictive under subpart K than for SIC's under part 135. An editorial change is being made to the rule language to clarify that the requirements apply to a pilot in command of an aircraft that requires the PIC to hold an ATP and to a second in command of an aircraft that requires the SIC to hold a commercial pilot certificate.

The kind of progressive checking referred to by one commenter is

presumably the kind of checking allowed in an Advanced Qualification program under SFAR No. 58 for certificate holders operating under parts 121 and 135. This kind of program is not available to persons operating under part 91 and this issue was not focused on by the FOARC or by the FAA before the NPRM was issued. Therefore, the FAA believes it is beyond the scope of this rulemaking.

*Section 91.1071 Crewmember Tests and Checks, Grace Provisions and Training to Accepted Standards*

PASS believes that additional language should be added to proposed § 91.1071 that states that if an airman fails a check and is currently an employee of another certificate holder (that is, parts 121, 125, 135), he or she must notify that company and not be allowed to function in a commercial capacity as an airman, until the check failed is subsequently passed.

*FAA Response:* The final rule has been changed to add the notification requirement; however, the FAA cannot address qualifications as an airman under parts 121 or 135 in this rulemaking.

*Section 91.1073 Training Program: General*

EJA states that proposed § 91.1073 should be clarified so that the grace period applies to all tests, flight checks, and proficiency checks, and not just to recurrent training.

*FAA Response:* The grace period that applies to tests, flight checks, and proficiency checks appears in § 91.1071(a).

*Section 91.1075 Training Program: Special Rules*

Alpha Flying states that proposed § 91.1075(b) could lead to an interpretation that only a part 142 certificated training center could be used as a contractor for training. The Pilatus PC-12 is one aircraft for which there is no part 142 training center. Alpha believes that it was not the intent of the FOARC to prohibit the program manager from conducting training (under subparagraph (a)), using the services of a professional training center for portions of the training, if approved by the FAA inspector with jurisdiction over the management specifications. It would be in the interest of air safety to have a recognized professional program fulfill the requirements of § 91.1075 even if not part 142 certificated, if equivalent training effectiveness could be demonstrated to the satisfaction of the FSDO.

*FAA Response:* The FAA agrees with this commenter and has changed the final rule to add a deviation clause that allows for the use of a training center that is not certificated under part 142 if approved by the Administrator. The FAA has made other changes in the final rule to clarify that a program manager may also use the services of another program manager or of a part 119 certificate holder.

*Section 91.1087 Approval of Aircraft Simulators and Other Training Devices*

Flexjet notes that, if a program manager or its affiliate also conducts parts 121 or 135 operations and has an approved training manual with approvals for aircraft simulators or other training devices, those same approvals should be carried over to meet the part 91 subpart K requirements.

*FAA Response:* The FAA agrees with this comment. The changes to § 91.1075 in the final rule will allow for this.

*Sections 91.1089, 91.1091, 91.1093, 91.1095 Qualifications and Initial and Transition Training and Checking: Check Pilots and Flight Instructors*

EJA believes that proposed §§ 91.1089 and 91.1091 should have a provision similar to that in § 91.1063 that would allow a check pilot or flight instructor used by a program manager who is also a certificate holder under part 121 or 135 to be used under subpart K without additional training or testing. Flexjet makes a similar comment.

*FAA Response:* The FAA agrees that a check pilot or flight instructor used by a program manager who is also a certificate holder under part 121 or 135 may be used in subpart K operations. The language of § 91.1063 is broad enough to cover these sections as well. However, the FAA would want to ensure that the training and testing program elements are the same for both the fractional program and the part 121 or 135 operation. Where there are differences in the training and testing provisions of these programs, the check pilot or flight instructor must be trained and tested with respect to those differences.

*Section 91.1101 Pilots: Initial, Transition, and Upgrade Ground Training*

EJA states that proposed § 91.1101 was adopted from current § 135.345, but that § 91.1101 does not include the requirement that initial, transition, and upgrade ground training must include training on "the approved Aircraft Flight Manual or equivalent." EJA believes this phrase should be added to § 91.1101.

*FAA Response:* The commenter is correct. The phrase has been added to § 91.1101(b)(11) in the final rule.

*Section 91.1109 Aircraft Maintenance: Inspection Program*

PASS believes that a new section should be added to delineate the responsibility for the airworthiness of the aircraft, specifying that the responsibility for the airworthiness of the aircraft should be shared by each fractional owner and the program manager. Also, this commenter believes that no program manager should use any person to perform required inspections or maintenance unless the person performing the inspection or maintenance is appropriately certificated, trained, qualified, and authorized to do so.

EJA and an individual commenter believe that as written, proposed § 91.1109 could be interpreted to require the development of a completely new inspection program. They believe that the final rule should clarify that the intent is to allow program managers to develop their inspection programs from portions of existing manufacturers' or certificate holders' inspection programs, or to use a manufacturer's or certificate holder's program in total. Similarly, it should make clear that compliance with current § 91.409 is also acceptable, as well as that currently used forms would still be acceptable.

Thus, this commenter states that when the program manager derives the inspection program from the manufacturer or certificate holder, it would then become the program manager's inspection program and require approval from the FAA for both the program and the use of the program. However, if the program manager elected to use the manufacturer's or certificate holder's inspection program in total, the program manager would request approval from the FAA to use the inspection program, but the inspection program itself would remain controlled by the manufacturer or certificate holder. To clarify this intent, "derived" should be replaced with "derived or adopted." For clarity, "area in which the aircraft is based" should be replaced with "program manager." Program managers will manage the aircraft inspection programs.

NATA and Flexjet state that it was the FOARC's intent to allow the use of continuous airworthiness maintenance programs and continuous airworthiness inspection programs under proposed subpart K. To make this clear they recommend a total rewrite of proposed § 91.1109 and also amendment of

numerous related sections throughout 14 CFR.

According to EJA, proposed § 91.1109 requires the “operator or program manager” to establish an aircraft inspection program. Since the NPRM requires the owner and program manager be jointly responsible for the airworthiness of program aircraft, this commenter recommends that § 91.1109 refer to the “owner or program manager.”

*FAA Response:* A new section specifying the responsibility for airworthiness, as suggested by PASS, is not necessary because this topic is covered by § 91.1011, which addresses the shared responsibilities of the owner and the program manager for compliance with all applicable requirements of this chapter, “including those related to airworthiness.” Likewise, it is not necessary to require in subpart K that persons performing required inspections or maintenance be appropriately certificated and qualified, because that topic is covered by part 43.

The commenters’ concern that § 91.1109 could require the development of a completely new inspection program is incorrect, because paragraph (b) clearly states that the program must be derived from an existing program, which may be the program recommended by the aircraft manufacturer. The word “derived” is more appropriate than “derived or adopted” because the manufacturer’s program alone may not be adequate for a particular operation. Also, the program must include any maintenance instructions in STC’s for any modifications that were made to the aircraft. For these reasons, the program manager needs to present the aircraft inspection program to the FAA for review and approval.

In response to the comment about the use of continuous airworthiness maintenance programs (CAMP), the commenters are correct that the proposed rule language did not fully authorize the use of a CAMP to the inspection program within a CAMP. Although § 91.1109, as proposed, would allow “An inspection program that is part of a continuous airworthiness maintenance program currently in use by a person holding an air carrier or operating certificate issued under part 119 of this chapter and operating that make and model aircraft under part 121 or 135 of this chapter” the FAA agrees that this option should be expanded in the final rule. The final rule has been rewritten, new §§ 91.1411–91.1443 have been added (based on subpart J of part 135), and editorial and applicability changes to other sections, including

§ 91.401, have been made to allow the use of a complete CAMP in a fractional ownership program. Fractional ownership program managers who elect to provide maintenance under a CAMP must meet maintenance requirements that are equivalent to those that part 121 and 135 operations that have a CAMP must meet. These include reporting requirements, mechanical interruption summary reports, service difficulty reports, employment of a Director of Maintenance and Chief Inspector, required inspection personnel, continuing analysis and surveillance program, maintenance recordkeeping requirements, and the use of airworthiness releases. With the use of a CAMP, the program manager will realize many of the same benefits that current part 121 and 135 operators have, such as continuing authorization to issue special flight permits as per § 21.197 and the use of reliability programs.

As noted by a commenter, the reference to the “operator or program manager” is incorrect. Although the owner is ultimately responsible for safe operations, the final rule refers only to the program manager, because it is the program manager who is delegated responsibility under §§ 91.1023 and 91.1025 for the program operating manual, which contains the approved aircraft inspection program. Also the phrase “area in which the aircraft is based” has been changed to clarify that the inspection program is approved by the FSDO that issued the management specifications.

#### *Section 91.1111 Maintenance Training*

EJA states that proposed § 91.1111 uses the same terminology as the equivalent provisions for crewmember training, which could lead to confusion due to the defined terms used for crewmember training, and the differing training requirements used for maintenance personnel. EJA states that using slightly different terminology will help ensure that the requirements are not confused. Specifically, EJA proposes that such personnel be required to “undergo appropriate training prior to exercising those responsibilities” instead of being required to “undergo appropriate initial and annual recurrent training.” EJA also recommends adding, “The program manager shall ensure that these personnel undergo annual refresher training, as applicable.”

Similarly, NWJ and an individual comment that the requirement for maintenance personnel to “undergo appropriate initial and annual recurrent training \* \* \*” may be too broad a statement. If the intention is that several

types of training may be “appropriate” (that is OJT, formal, classroom, etc.) then that should be specified. If the intention is that maintenance personnel attend formal maintenance training annually, such as Flight Safety, then a twelve-month frequency may be excessive. A more appropriate frequency would be twenty-four months.

PASS believes that maintenance personnel should be certificated and qualified in accordance with part 65. Maintenance training should be documented in a training file for each employee of the program management company and available to the Administrator for inspection.

*FAA Response:* The commenters’ concerns about this section are unwarranted. The initial and recurrent training would be specific to the aircraft type and appropriate in content and length for the responsibilities of the maintenance personnel being trained. This training can be conducted using a variety of methods, including classroom training, on-the-job training, individual instruction, etc. Certification and qualification under part 65 would be a prerequisite to performing maintenance responsibilities. The FAA is developing guidance on training for maintenance personnel that will specify what training programs would be considered adequate and will recommend recordkeeping standards to help inspectors evaluate the adequacy of the training programs on an ongoing basis.

#### *Section 91.1115 Minimum Equipment Lists and Letters of Authorization*

PASS believes that a statement needs to be added to this section that the Administrator will approve or deny any Minimum Equipment Lists, Letters of Authorization, Dispatch Deviation Guides, Deferred Discrepancy Lists or any other approvals covering the program aircraft.

EJA states that the proposed rule does not address the use of a minimum equipment list or configuration deviation list as envisioned by the FOARC. The preamble states that “The FOARC recommended that approvals for fractional ownership operations (such as MEL’s, RVSM (reduced vertical separation minimum airspace), manual reviews and maintenance programs) be conducted through a process similar to part 135 and/or part 121 processes and procedures, as appropriate”. EJA states that a new section should be added to mirror § 135.179 and a conforming amendment should be made to § 91.213. Additionally, program managers who also hold a part 121 or 135 certificate should be permitted to use the MEL’s/

CDL's approved for those operations, as applicable.

*FAA Response:* The FOARC recommended and the FAA agrees that a process similar to that used for part 121 and 135 operators should be used to approve operations documents, authorizations, and approvals. Specific sections in subpart K refer to those items that must be approved or accepted by the FAA. The actual approval will be given to the program manager on behalf of the fractional owners. The specific approval processes and procedures will be in guidance documents that will be completed on the effective date of this rule. The guidance will reflect a level of oversight and approval that is equivalent to that provided to part 121 and 135 operations.

The FAA also agrees that proposed § 91.1115 does not adequately describe the procedures and approvals needed for operating an aircraft with inoperable instruments or equipment. As suggested, the final rule replaces the proposed language with a new section modeled on § 135.179. The proposed language stating that all approvals, including MEL's, are issued to the program manager and are not affected by changes in ownership has been included in § 91.1011(b). The new section also specifies that aircraft covered by an MEL for part 121 or part 135 operations must not have a separately approved MEL under subpart K, because the FAA issues only one MEL for each aircraft. If the aircraft is used under part 121 or 135, the MEL would be issued under that part.

The FAA agrees with the suggestion by EJA that § 91.213(c) should refer to part 91, subpart K, and has made this change in the final rule.

### **Part 91, Appendix G Reduced Vertical Separation Minimum Airspace**

EJA states that, since Reduced Vertical Separation Minimum ("RVSM") standards may be used by fractionally-owned aircraft, Appendix G to part 91 should reflect the existence of part 91, subpart K.

*FAA Response:* The FAA agrees with the EJA and has amended appendix G in the final rule to include references to subpart K in sections 3(a) and (3)(b) and in the introductory paragraph to section 7.

### **Part 135**

#### *Applicability*

EJA states that the reference to §§ 91.1053 and 91.1055 in proposed § 135.1(b) may create confusion that will require interpretation by the Administrator and/or the certificate

holder to determine applicability. There is a high likelihood that those interpretations might be different. A simpler and clearer solution would be to revise § 135.99 to include the applicable requirements of §§ 91.1053 and 91.1055 using the terminology of part 135.

NATA believes that it was the intention of the FOARC to require eligible on-demand operators to have two-pilot crews when exercising the privileges of an eligible on-demand operator. While the proposed regulations require compliance with the more stringent pilot experience and crew pairing requirements, a two-pilot crew is not specifically required. Proposed § 91.1049 (d) requires two-pilot crews in fractional program operations. Therefore, to fulfill the intent and spirit of the FOARC, NATA recommends amending proposed § 135.1 to specifically include a reference to the flight crew complement requirements of § 91.1049.

NATA also notes that the FAA's ability to grant deviations from certain requirements where appropriate based on the size and complexity of the operation or other relevant factors was critical to the FOARC deliberations. This commenter believes that it was FOARC's intent to provide access to these same deviations for part 135 operators to the extent that they are present in proposed §§ 91.1049(d), 91.1053 and 91.1055.

Kaiser Air, Inc. states that for clarification the language in § 135.1(b) should emphasize an eligible crew rather than eligible operator. An eligible operator may have several crews that may or may not be eligible themselves. Furthermore, Kaiser states that § 91.1055(c) should not be applicable to "Eligible On-Demand Operators." Kaiser states that it is not a part 135 requirement now and is onerous to be added to the eligibility requirements. Kaiser questions how this rule would be interpreted and asks for clarification on whether paragraph (c) applies to SIC's, who do not require a type rating.

*FAA Response:* The FAA agrees that the proposed change to § 135.1 did not clearly spell out the requirements that apply to eligible on-demand operators. In the final rule, these requirements have been moved to a new § 135.4 that describes, rather than cross-referencing, the attributes of eligible on-demand operations, including the requirement for a two-pilot crew. Section 135.4 incorporates the requirements of §§ 91.1049(d), 91.1053, and 91.1055, including the provision for deviations, that part 135 operators must comply with in order to be eligible to conduct operations using the same standards for

the instrument approach procedures that fractional ownership programs will follow.

#### *Section 135.247 Pilot Qualifications: Recent Experience*

Kaiser Air, Inc. supports the proposed changes to § 135.247, but is concerned that the words "each airplane" and "that airplane" will be misinterpreted as meaning the specific serial numbered aircraft, rather than by category, class, and type. Similarly, the rule should state whether "\* \* \* more than one crewmember" is required by type design or by operating rule.

*FAA Response:* The FAA agrees with these comments and has changed the final rule to clarify that the requirements of paragraph (a)(3) apply to airplanes that are *type certificated* for more than one pilot crewmember and to pilots qualifying in each airplane *type*.

#### *Section 135.299 Pilot in Command: Line Checks*

NATA strongly endorses an amendment to § 135.299 that would establish an alternate means of compliance with the regulation by permitting certificate holders to utilize simulation technologies. § 135.299(a) requires each pilot to pass a flight check annually. NATA believes that a well run line check program can provide detection of deficiencies and adverse trends and establish the need for a revision of old procedures or an initiation of new procedures by the certificate holder. Further, NATA believes that current simulation technology can provide a checking environment that would afford a level of safety equal to that currently provided by § 135.299.

The majority of the § 135.299 line checks conducted in on-demand air carrier operations are on flights that are dispatched for the sole purpose of accomplishing that check. Unlike scheduled air carrier operations conducted under part 121, where these checks are conducted during revenue operations, the on-demand operator must bear the total cost of the check. This puts the on-demand carrier at an economic disadvantage. Additionally, there is no line check requirement for any aircraft operated under part 91.

NATA believes that crews professionally trained in the operationally realistic environment of advanced simulation, and comprehensively checked in ways not possible in the airplane, are better disciplined and better prepared to meet the challenges of flight than those trained in airplanes.

Similarly, a pilot comments on the expense of the line check, which he believes does not effectively check competency. He proposes that it either be abolished or that the focus of the check is shifted away from basic airmanship to quantifiable human factors issues with the opportunity to provide a somewhat non-threatening environment where the pilot being checked has the chance to enhance his understanding of, and proficiency with, company standard operating procedures, human factors skills, etc.

*FAA Response:* While there is some merit to the arguments presented on the line check requirements under part 135, this issue was not addressed in the NPRM process and therefore is beyond the scope of the proposed changes and cannot be resolved in the final rule.

#### Miscellaneous

EJA states that throughout part 61, individual pilots are allowed to satisfy basic training, checking, proficiency check, and other similar requirements by satisfying requirements completed under air carrier training programs. EJA recommends that these sections should be amended to give comparable credit for satisfying parallel requirements under part 91, subpart K. The sections that EJA cites are §§ 61.55(d), 61.57, 61.58, 61.63, 61.157, and 61.159.

Similarly, EJA recommends that §§ 91.189 and 91.191 should be amended so that category II and III operations will be approved through Management Specifications and training and manual requirements will be met through part 91, subpart K.

This commenter also points out that if another rulemaking becomes final, first it will be necessary to include references to the "Decision Altitude" in proposed §§ 91.1039(c) and 91.1101(a)(7).

*FAA Response:* The FAA agrees with these comments because the training, testing, manuals, and approval processes in subpart K of part 91 are equivalent to those in parts 121 and 135. The FAA has made changes to the final rule to insert references in part 61 (except for § 61.57) to give credit for training and checking requirements accomplished under part 91, subpart K, and in §§ 91.189 and 91.191 to allow for approval of category II and III operations through part 91, subpart K, Management Specifications. Also the term "Decision Altitude" has been substituted for "decision height" wherever it appears. The FAA did not change § 61.57 because subpart K does not contain recent experience requirements and therefore, subpart K pilots must follow the § 61.57 requirements.

#### Beyond the Scope

An individual commenter recommends that the complete text of §§ 135.89, 135.93, and 135.100 should be included within new subpart K.

NATA recommends that a new section be added (§ 91.1043 Aircraft requirements) to allow the use of aircraft registered in other countries but are legally permitted to operate in this country in fractional owner programs. This commenter proposes language that would require the aircraft to be registered in a country that is a party to the convention on International Civil Aviation and to meet other requirements.

Eclipse Aviation notes that scheduled operations under part 135 require, pursuant to part 119, part 25 certificated aircraft for turbo-fan operations. This is in contrast to the fact that piston propeller and turboprop aircraft, that are not certified under part 25, may be utilized in scheduled part 135 operations. Certainly, when part 119 and its related safety concerns were formulated, aircraft such as the Eclipse 500 did not exist. Clearly, this commenter believes, the equipment and performance safety considerations that influenced the part 25 requirement for turbo-fan aircraft utilization in scheduled part 135 operations have merit. However, the level of safety that is available from a turbo-fan aircraft, featuring state-of-the-art digital avionics, offers an order of magnitude improvement in safety over most, if not all, of the piston propeller and turboprop aircraft that may currently be utilized in scheduled part 135 operations. Eclipse requests that part 119 requirements concerning scheduled part 135 operations be evaluated in light of the new generation of personal turbo-fan aircraft that will appear on the aviation market over the next few years.

*FAA Response:* All of the issues above merit consideration, but they were not addressed in the NPRM, and therefore are beyond the scope of issues that can be addressed in the final rule without additional notice and comment.

Fractional owner program managers are encouraged to follow the standards in §§ 135.89, 135.93, and 135.100 for the use of oxygen and autopilots and for crewmember duties, especially if the program manager also conducts operations under part 135. However, it needs to be clearly specified in the manual and training program which regulations and procedures are being followed.

NATA's proposal to allow foreign registered aircraft to be operated in fractional owner programs has

implications relating to citizenship and registration requirements that would require further study and future rulemaking, if warranted.

The FAA agrees that the introduction of the Eclipse 500 will require the agency to reevaluate which operating requirements would be most appropriate for that airplane. At that time FAA will determine whether rulemaking is necessary.

#### Minor Conforming Changes

The FAA finds it necessary to make minor changes by adding two rule sections not presented in the NPRM: Sections 21.197 (ferry flights) and 91.401 (applicability). In the case of 21.197, the change gives program managers the same authority, to conduct ferry flights for the purpose of maintenance, as is currently held by part 121 and 135 operators who operate under continuous airworthiness maintenance programs. The change to section 91.401 will add part 91, subpart K management specifications holders to those who operate under a continuous airworthiness maintenance program and thus do not have to comply with certain maintenance sections of part 91.

#### Paperwork Reduction Act

The amendment to 14 CFR part 91 contains information collection requirements. In accordance with the Paperwork Reduction Act of 1995, 44 U.S.C. 3501 *et seq.*, the information collection requirements associated with this rule were submitted to the Office of Management and Budget (OMB) for review.

According to the regulations implementing the Paperwork Reduction Act of 1995, (5 CFR 1320.8(b)(2)(vi)), an agency may not conduct or sponsor and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control number for this information collection will be published in the **Federal Register** after it is approved by the Office of Management and Budget.

#### Regulatory Evaluation Summary

##### Overview

Proposed changes to Federal regulations must undergo several economic analyses. First, Executive Order 12866 directs that each Federal agency propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs. Second, the Regulatory Flexibility Act of 1980 requires agencies to analyze the economic impact of regulatory changes on small entities. Third, the Trade

Agreements Act (19 U.S.C. 2531–2533) prohibits agencies from setting standards that create unnecessary obstacles to the foreign commerce of the United States. In developing U.S. standards, the Trade Agreements Act also requires agencies to consider international standards and, where appropriate, use them as the basis of U.S. standards. Fourth, the Unfunded Mandates Reform Act of 1995 requires agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by State, local, or tribal governments, in the aggregate, or by the private sector, of \$100 million or more annually (adjusted for inflation).

In conducting these analyses, the Federal Aviation Administration (FAA) has determined that the proposed rule (1) has benefits that do justify its costs, is not “a significant regulatory action” as defined in the Executive Order, and is “significant” as defined in the Department of Transportation’s Regulatory Policies and Procedures; (2) will not have a significant impact on a substantial number of small entities; (3) will not constitute a barrier to international trade; and (4) does not impose an unfunded mandate on State, local, or tribal governments, or on the private sector. These analyses are available in the docket and are summarized below.

### Background

In October 1999, the FAA convened the Fractional Ownership Aviation Rulemaking Committee (FOARC) to address the issues surrounding the regulation of fractional aircraft ownership program operations. On February 23, 2000, after extensive discussions, and a review of all comments received from the public and operators, the FOARC presented rulemaking recommendations to the FAA. These recommendations formed the basis of the Notice of Proposed Rulemaking (NPRM) entitled “Regulation of Fractional Aircraft Ownership Programs” (66 FR 37520, July 18, 2001). Comments were to be received by October 16, 2001 but in response to several requests, the comment period was extended to November 16, 2001.

Since the inception of the fractional aircraft ownership program concept in 1986 the number of fractional aircraft ownership program aircraft has increased substantially. As of early 2000, the leading fractional aircraft ownership programs managed approximately 465 aircraft on behalf of 3,446 shareholders and at the end of

2001 there were more than 3,500 shareholders with almost 5,000 shares of more than 650 aircraft. Growth in fractional aircraft ownership programs is expected to continue.

The final rule is expected to impose a total estimated cost of approximately \$133.2 million (\$85.8 million, discounted) on fractional operations, eligible on-demand air charter operators, and the FAA over the 15-year period from 2003 to 2017. Fractional aircraft ownership operations are expected to incur approximately \$47.4 million (\$35.2 million, discounted), of these total costs complying with the regulatory requirements. Eligible on-demand part 135 air charter operators would incur compliance costs of approximately \$83 million (\$48.3 million, discounted) of these total costs. The FAA is expected to incur estimated costs of approximately \$3.1 million (\$2.3 million, discounted), administering the rule.

### Comments

Some 231 entries (including some duplicates) were received in response to the NPRM. Three organizations endorsed the FAA’s initial regulatory evaluation and one individual expressed concern about the possible economic impact of adopting subpart K. No commenters directly addressed specific proposed costs or revenue opportunities contained in the preliminary regulatory evaluation. The National Air Transportation Association (NATA) stated “that the FAA’s regulatory and economic evaluations are accurate and valid”. It continued: “NATA, as the representative of many of the entities that will be directly regulated by the proposed regulation, agrees with the FAA’s conclusion that the benefits of the proposed regulation justify its costs, that the regulation will not have a significant impact on a substantial number of small entities, and that the regulation will not create a barrier to international trade”. Bombardier Business Jet Solution (Flexjet) stated; “Flexjet supports the FAA regulatory and economic validity in the NPRM” and also included NATA’s additional comments supporting the FAA’s regulatory flexibility determination and trade impact assessment. Executive Jet Aviation (EJA) stated, that as a member of NATA’s Fractional Aircraft Business Council, it “strongly supports all of the general and specific comments on this NPRM “provided by NATA. An anonymous commenter stated his or her belief “that the proposed subpart K could have an unintended, detrimental economic effect on the business aviation

industry without an appreciable increase in safety.” The commenter continued “that the existing part 91 rules, along with the arms-length contracts between informed fractional owners and program managers, allow market forces to create the most efficient and appropriate safety-to-cost ratio.” While the commenter addressed various sections of the proposed rule, he/she did not challenge specific proposed cost estimates. In view of the lack of any specific cost data submitted by the commenter, the FAA cannot address these comments.

NATA noted in a second filing that “the issuance of the rule likely will have virtually no effect on the level of operations by aircraft in fractional ownership programs, since the rule was drafted to reflect the practices of the current fractional ownership program operations. Rather, the growth of fractional ownership programs over the past two decades has been, and will continue to be, attributable to American-style business innovation, changes in the economy, and increases in the perceived benefits of traveling by private aircraft.”

### Fractional Aircraft Ownership Operations Compliance Costs

Certain sections of the proposed rule are expected to impose compliance costs on fractional aircraft ownership operations. The FAA has analyzed these costs for a 15-year period, from 2003 through 2017. As required by the Office of Management and Budget (OMB), the present value of this cost stream was calculated using a discount factor of 7 percent. All costs are expressed in 2001 dollars. These compliance costs are summarized below.

#### *Sections 91.519 Passenger Briefing, and 91.1035 Passenger Awareness*

A fractional aircraft ownership program entity operating under part 91, subpart K will incur a one-time cost of \$105 for every aircraft for briefing cards plus an annual cost of \$85 for every aircraft to comply with the briefing requirement. Over the 15-year period from 2003 to 2017, fractional aircraft ownership operations collectively will incur compliance costs of approximately \$880,000.

#### *Section 91.1003 Management Contract Between Owner and Program Manager*

A fractional aircraft ownership program entity operating under part 91, subpart K will incur compliance costs represented by attorney fees of \$525 and sundry expenses of \$20 for each shareholder to comply with the requirement of the rule. Over the 15-

year period from 2003 to 2017, fractional aircraft ownership operations (operating under part 91, subpart K) collectively will incur compliance costs of approximately \$152,000.

*Section 91.1013 Owner's Operational Control Responsibilities*

A fractional aircraft ownership program entity operating under part 91, subpart K will incur compliance costs of \$40 to brief each owner on the owner's operational control responsibilities upon signing an initial contract and upon renewal which is generally every 5 years. Over the 15-year period from 2003 to 2017, fractional aircraft ownership operations (operating under part 91, subpart K) collectively will incur compliance costs of approximately \$921,000.

*Section 91.1015 Management Specifications*

A fractional aircraft ownership program entity operating under part 91, subpart K will incur compliance costs of \$125,400 in the first year of operation and \$6,270 annually in subsequent years to comply with this requirement. Over the 15-year period from 2003 to 2017, fractional aircraft ownership program operations (operating under part 91, subpart K) collectively will incur compliance costs of approximately \$2.2 million.

*Section 91.1017 Amending Program Manager's Management Specifications*

A fractional aircraft ownership program entity operating under part 91, subpart K will incur compliance costs of \$155 annually to comply with this requirement. Over the 15-year period from 2003 to 2017, fractional aircraft ownership program operations (operating under part 91, subpart K) collectively will incur compliance costs of approximately \$20,000.

*Section 91.1021 Internal Safety Reporting*

A fractional aircraft ownership program entity operating under part 91, subpart K will incur compliance costs of \$430 in the first year of operation only. Over the 15-year period from 2003 to 2017, fractional aircraft ownership program operations (operating under part 91, subpart K) collectively will incur compliance costs of approximately \$5,000.

*Section 91.1023 Program Operating Manual Requirements*

A fractional aircraft ownership program entity operating under part 91, subpart K will incur compliance costs of \$10,450 in the first year of operation

only. Over the 15-year period from 2003 to 2017, fractional aircraft ownership program operations collectively will incur compliance costs of \$125,000.

*Section 91.1027 Recordkeeping<sup>1</sup>*

A fractional aircraft ownership program entity operating under part 91, subpart K will incur initial compliance costs of \$5,250 in the first year of operation only to establish a recordkeeping system. In addition, each entity will incur an annual cost of \$210 to maintain each pilot's records including tracking flight and duty time and an additional \$680 to prepare a load manifest for each flight. Over the 15-year period from 2003 to 2017, fractional aircraft ownership program operations collectively will incur compliance costs of \$15.3 million.

*Section 91.1029 Flight Locating Requirements*

A fractional aircraft ownership program entity operating under part 91, subpart K will incur compliance costs of \$210 in each year to prepare flight locating information for each flight that is not on an FAA flight plan. Over the 15-year period from 2003 to 2017, fractional aircraft ownership program operations collectively will incur compliance costs of \$27,000.

*Section 91.1033 Operating Information Required*

A fractional aircraft ownership program entity operating under part 91, subpart K will incur compliance costs of \$345 in the first year of operation to develop cockpit checklists. Over the 15-year period from 2003 to 2017, fractional aircraft ownership program operations collectively will incur compliance costs of \$44,500.

*Section 91.1035 Passenger Awareness*

A fractional aircraft ownership program entity operating under part 91, subpart K will incur compliance costs of \$85 per aircraft annually to provide briefings. Over the 15-year period from 2003 to 2017, fractional aircraft ownership program operations collectively will incur compliance costs of approximately \$791,000.

*Section 91.1041 Aircraft Proving Tests*

An existing fractional aircraft ownership program entity operating under part 91, subpart K will incur demonstration costs of \$2,000 in lieu of proving tests in the first year of operation to demonstrate their ability to conduct safe operations. New entities

will incur compliance costs of \$9,400 to operate a turbojet aircraft. Over the 15-year period from 2003 to 2017, fractional aircraft ownership program operations collectively will incur compliance costs of approximately \$68,000.

*Section 91.1045 Additional Equipment Requirements*

A fractional aircraft ownership program entity operating under part 91, subpart K will incur compliance costs of \$156,750 for 30 percent of the year 2003 fleet only, as subsequent aircraft will be appropriately equipped voluntarily by the manufacturer consistent with regulatory requirements and evolving technology. Over the 15-year period from 2003 to 2017, fractional aircraft ownership program operations (operating under part 91, subpart K) collectively will incur compliance costs of approximately \$20.2 million.

*Section 91.1047 Drug and Alcohol Misuse Education Program*

A fractional aircraft ownership program entity operating under part 91, subpart K will incur negligible costs of \$3.30 per shareholder to comply with this requirement. Over the 15-year period from 2003 to 2017, fractional aircraft ownership program operations (operating under part 91, subpart K) collectively will incur compliance costs of approximately \$24,000.

*Section 91.1049 Personnel*

A fractional aircraft ownership program entity operating under part 91, subpart K will incur annual costs of \$180 to publish monthly flight crewmember duty schedules. Over the 15-year period from 2003 to 2017, fractional aircraft ownership program operations (operating under part 91, subpart K) collectively will incur compliance costs of approximately \$23,000.

*Section 91.1051 Pilot Safety Background Check*

A fractional aircraft ownership program entity operating under part 91, subpart K will incur a one-time cost of \$4.50 to request personnel information for each pilot. Over the 15-year period from 2003 to 2017, fractional aircraft ownership program operations (operating under part 91, subpart K) collectively will incur compliance costs of approximately \$17,000.

*Section 91.1057 Flight, Duty, and Rest Time Requirements*

A fractional aircraft ownership program entity operating under part 91, subpart K will incur recordkeeping costs

<sup>1</sup> Captures recordkeeping compliance costs attributable to §§ 91.1057 and 91.1061.

to comply with this requirement. These costs are captured in the analysis of § 91.1027.

*Section 91.1059 Flight Time Limitations and Rest Requirements: One or Two Pilot Crews*

A fractional aircraft ownership program entity operating under part 91, subpart K will incur limits on ultra-long range flights. The FAA has deleted the proposed planned expanded duty definition and the proposed limits for such duty in §§ 91.1059 and 91.1061 and instead is applying limits for augmented crews in § 91.1061 that are similar to those currently required in § 135.269 for unscheduled 3-or 4-pilot crews. The FAA estimates that this change will result in a cost of \$1,600 for each ultra-long range flight. Over the 15-year period from 2003 to 2017, fractional aircraft ownership program operations collectively will incur compliance costs of \$3.6 million.

*Section 91.1061 Augmented Flight Crews*

A fractional aircraft ownership program entity operating under part 91, subpart K will incur recordkeeping costs to comply with this requirement. These costs are captured in the analysis of § 91.1027.<sup>2</sup>

*Section 91.1062 Flight Duty Periods and Rest Requirements: Flight Attendants*

A fractional aircraft ownership program entity operating under part 91, subpart K will incur limits on the scheduled duty period they may assign a flight attendant who is defined in § 91.1057 as an individual whose duties include but are not necessarily limited to safety-related responsibilities. It includes individuals either required by the program manager's management specifications minimum crew complement or in addition to that minimum. The FAA assumes, for the purposes of this analysis, that fractional program managers will elect the team approach provided for in § 91.1062(b)(2) and therefore the duty limitation will principally affect only ultra-long range flights. Over the 15-year period from 2003 to 2017, fractional aircraft ownership program operations (operating under part 91, subpart K) collectively will incur compliance costs of \$500 per flight or a total of approximately \$1.1 million.

<sup>2</sup> Operating costs associated with augmenting flight crews, such as salaries, training, drug and alcohol misuse program, and other administrative program costs are captured under the specific requirements addressing these areas.

*Sections 91.1063 through 91.1107 Various Training*

A fractional aircraft ownership program entity operating under part 91, subpart K will incur compliance costs of \$209,000 in the first year of operation only. Over the 15-year period from 2003 to 2017, fractional aircraft ownership program operations collectively will incur compliance costs of \$2.5 million.

*Section 91.1115 Minimum Equipment Lists and Letters of Authorization*

A fractional aircraft ownership program entity operating under part 91, subpart K will incur costs of \$5,225 in the first year of operation only to comply with this requirement. Negligible compliance costs will be incurred in subsequent years of operation and are estimated as to be zero. Over the 15-year period from 2003 to 2017, fractional aircraft ownership program operations collectively will incur compliance costs of \$63,000.

**Federal Aviation Administration Costs**

The current FAA workforce will be sufficient to perform the monitoring and surveillance activities associated with administering the requirements of the rule. However, it will be necessary for the FAA to develop a training course and associated instructional materials to educate its inspectors and supervisors in their responsibilities to administer the rule. Familiarization training by either satellite broadcast or video will be made available to all inspectors while inspectors assigned to fractional program operators will undergo a two-day training program. Accordingly, the FAA estimates that it will incur \$730,000 in the first year to train its workforce appropriately, and will incur \$20,000 in each subsequent year for initial training of newly assigned inspectors. Additionally, the FAA will incur \$683,000 in the first year only to prepare and implement management specifications for the requirements contained in the rule.

The FAA also estimates that it will incur annual costs of \$95,000. This cost is based on the time of existing FAA staff spent reviewing and processing program information and clerical support to issue written approvals and authorizations submitted to the FAA as identified in this document. Over the 15-year period from 2003 to 2017, the FAA will incur costs of approximately \$3.1 million to administer the requirement of the rule.

**Benefits**

Most fractional aircraft ownership program operations today are conducted in accordance with industry best

practices that exceed part 91 requirements. The FAA believes that the standards of subpart K are necessary to assure the continued safety of operations for a fairly new and rapidly growing segment of aviation by placing regulatory limits on operations that qualify as "fractional aircraft ownership program", and by clearly delineating the safety responsibilities of fractional owners and fractional ownership program managers.

**Other Impacts of the Proposed Rule**

Cost savings may be realized by fractional aircraft ownership program entities and "eligible on-demand" air charter operations as a result of the final rule. Eligible on-demand air charter will incur costs if they are to realize the cost savings. The impacts are summarized below.

*Sections 61.57 Exceptions, and 135.247 Pilot Qualifications: Recent Experience*

A fractional aircraft ownership program entity operating under either part 91, subpart K or part 135 and eligible on-demand part 135 entities will realize annual cost savings of \$3,135 per pilot as a result of complying with the requirement. Over the 15-year period from 2003 to 2017, fractional aircraft ownership program operations collectively will realize cost savings of approximately \$219.6 million. Eligible on-demand part 135 operators will realize cost savings of approximately \$452 million.

*Sections 91.509 Survival Equipment for Over-water Operations, and 135.167 Emergency Equipment: Extended Over-water Operations*

A fractional aircraft ownership program entity operating under either part 91, subpart K or part 135 has the potential to realize cost savings of approximately \$3,660 per trip. The amount saved depends on the ability of the entity to secure a deviation from this requirement. Similar per trip savings would be available to eligible on-demand part 135 operators.

*Section 135.4 Eligible On-demand Operations*

An "eligible on-demand" entity operates turbine powered airplanes that are type certificated for more than one pilot, have higher experienced pilots and have a crew pairing program. The estimated cost of these provisions over the 15-year period from 2003 to 2017 is approximately \$82 million.

**Section 135.145 Aircraft Proving Tests**

A fractional aircraft ownership program entity operating under part 135 will realize cost savings of \$36,600 per proving test complying with this requirement. Over the 15-year period from 2003 to 2017, fractional aircraft ownership program operations (under part 135) collectively will realize cost savings of approximately \$13.7 million. Eligible on-demand part 135 operators will realize cost savings of approximately \$92 million over the 15-year period.

**Section 135.225 IFR: Takeoff, Approach, and Landing**

A fractional aircraft ownership program entity operating under part 135 will realize \$36,600 annually in cost savings as a result of this requirement. Over the 15-year period from 2003 to 2017, fractional aircraft ownership program operations (operating under part 135) collectively will realize approximately \$1.6 million in cost savings. Collectively, eligible on-demand part 135 operators will realize

cost savings of approximately \$34 million over the 15-year period.

**Sections 135.251 and 135.255 Testing for Prohibited Drugs and Alcohol**

A fractional aircraft ownership program entity operating under part 135 will realize \$1,700 in cost savings and incur costs of \$50 per occurrence as a result of this requirement. Over the 15-year period from 2003 to 2017, fractional aircraft ownership program operations (operating under part 135) collectively will realize approximately \$2.6 million in cost savings and incur costs of approximately \$50,000. Eligible on-demand part 135 operators will realize \$1,385 in cost savings and incur costs of \$50 per occurrence as a result of this requirement. Over the 15-year period these operators collectively will realize approximately \$17 million in cost savings and incur costs of approximately \$622,500.

**Summary of Costs, Cost Savings, and Benefits**

The total costs of the proposed rule are approximately \$133.2 million (\$85.8

million, discounted). Fractional aircraft ownership program entities will incur approximately \$47.4 million (\$35.2 million, discounted) of these costs to comply with the requirements contained in the rule; while part 135 eligible on-demand entities will incur \$82.7 million (\$48.3 million, discounted) in compliance costs. The FAA will incur total costs of approximately \$3.1 million (\$2.3 million, discounted) to administer the rule. Fractional aircraft ownership program entities will realize approximately \$237.4 million in cost savings (entities operating under part 91, subpart K will realize \$132.4 million (\$75.6 million, discounted); entities operating under part 135 will realize \$105 million (\$62.5 million, discounted)) while eligible on-demand part 135 operators will realize approximately \$596 million (\$370.3 million, discounted) in cost savings. The public is expected to benefit from enhanced aviation safety directly attributable to the proposed rule. These costs, cost savings, and benefits are summarized in Table S-1.

TABLE S-1. SUMMARY OF COSTS, COST SAVINGS, AND BENEFITS  
[In 2001 dollars]

Category	Undiscounted	Discounted <sup>a</sup>
Fractional Aircraft Ownership Program Operations Compliance Costs for Entities Operating Under:		
Part 91, Subpart K: .....	\$47,283,800	\$35,123,400
Part 135: .....	75,000	45,500
Total .....	47,358,800	35,168,900
Eligible On-demand part 135 Operators .....	82,689,400	48,326,800
FAA Administrative Costs .....	3,118,000	2,349,300
Total Costs .....	133,166,200	85,845,000
Potential Costs Savings to Fractional Aircraft Ownership Program Entities Operating Under:		
Part 91, Subpart K: .....	132,416,400	75,600,700
Part 135: .....	104,964,800	62,459,700
Total .....	237,381,200	138,060,400
Eligible On-demand part 135 Operators .....	595,909,700	370,307,000
Total Cost Savings .....	833,290,900	508,367,400
Safety Benefits .....	Enhanced Safety	Enhanced Safety

<sup>a</sup> Discounted at 7 percent over a 15-year period from 2003 to 2017.

**Final Regulatory Flexibility Determination**

The Regulatory Flexibility Act of 1980 (RFA) establishes “as a principle of regulatory issuance that agencies shall endeavor, consistent with the objective of the rule and applicable statutes, to fit regulatory and informational requirements to the scale of the business, organizations, and governmental jurisdictions subject to regulation.” To achieve that principle,

the Act requires agencies to solicit and consider flexible regulatory proposals and to explain the rationale for their actions. The Act covers a wide-range of small entities, including small businesses, not-for-profit organizations, and small governmental jurisdictions.

Agencies must perform a review to determine whether a proposed or final rule will have a significant economic impact on a substantial number of small entities. If the determination is that it

will, the agency must prepare a regulatory flexibility analysis as described in the Act.

However, if an agency determines that a proposed or final rule is not expected to have a significant economic impact on a substantial number of small entities, section 605(b) of the 1980 act provides that the head of the agency may so certify and a regulatory flexibility analysis is not required. The certification must include a statement

providing the factual basis for this determination, and the reasoning should be clear.

The FAA has determined that the final rule will potentially impact 12 small businesses and, for the purposes of this analysis, has assumed all these firms will operate under subpart K of part 91 thus imposing on an entity average compliance costs of approximately \$3.9 million over the 15-year period (in 2001 dollars). The annualized compliance cost to each small business will be approximately \$321,350 (in 2001 dollars) which the current operators have stated will be voluntarily incurred. Furthermore, 6 of these 12 entities will be new entrants. The FAA has determined that the rule will potentially impose on each new (small business) entrant a compliance cost of approximately \$617,400 over a 15-year period (in 2001 dollars). The annualized compliance cost to a new entrant will be approximately \$57,500 (in 2001 dollars). The FAA does not have information on the revenues of these small entrants but based on information about one of the current operators, the FAA estimates that a program aircraft generates approximately \$4.6 million in revenues. If a new entrant has two aircraft, the cost that this rule will impose on it is less than one percent of the approximate revenues generated by those two aircraft. The FAA therefore believes these costs will not have a significant impact on small entrants. Hence, the FAA has determined that the estimated compliance costs expected to be incurred by existing fractional aircraft ownership programs and new entrants over the 15-year period will be marginal.

Eligible on-demand part 135 operators who voluntarily elect to meet the requirement of part 135.4 will incur an annual cost of \$1,725 for one-third of its pilots. Thus, an operator of a single aircraft using three pilots will incur a total cost of \$1,725 which is less than the total cost of a single hour operating the type of turbine powered aircraft that meet the requirements of part 135.4. The FAA therefore believes this cost will not have a significant impact on small eligible on-demand entrants. Therefore, the FAA certifies that the rule will not have a significant economic impact on a substantial number of small entities.

#### **International Trade Impact Assessment**

The Trade Agreement Act of 1979 prohibits Federal agencies from engaging in any standards or related activities that create unnecessary obstacles to the foreign commerce of the United States. Legitimate domestic

objectives, such as safety, are not considered unnecessary obstacles. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards.

In accordance with the above statute, the FAA has assessed the potential effect of this proposed rule and has determined that it will impose the same costs on domestic entities and on international entities and thus has a neutral trade impact.

#### **Unfunded Mandates Act of 1995 Assessment**

The Unfunded Mandates Reform Act of 1995 (the Act), enacted as Public Law 104-4 on March 22, 1995, is intended, among other things, to curb the practice of imposing unfunded Federal mandates on State, local, and tribal governments.

Title II of the Act requires each Federal agency to prepare a written statement assessing the effects of any Federal mandate in a proposed or final rule that may result in a \$100 million or more expenditure (adjusted annually for inflation) in any one year by State, local, and tribal governments, in the aggregate, or by the private sector; such a mandate is deemed to be a "significant regulatory action."

This proposed rule does not contain such a mandate. Therefore, the requirements of Title II of the Unfunded Mandates Reform Act of 1995 do not apply.

#### **Federalism Implications**

The regulations herein will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 13132, dated August 4, 1999, it is determined that this rule will not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

#### **Compatibility With ICAO Standards**

In keeping with U.S. obligations under the Convention of International Civil Aviation, it is FAA policy to comply with the Standards and Recommended Practices of the International Civil Aviation Organization (ICAO) to the maximum extent practicable. ICAO does not specifically address fractional ownership. However, in view of the FAA's conclusion that fractional ownership program operations conducted in conformity with subpart K of 14 CFR part 91 are general aviation activities, this final rule does not

conflict with ICAO international standards applicable to international general aviation operations.

#### **Environmental Analysis**

FAA Order 1050.1D defines the FAA actions that may be categorically excluded from preparation of a National Environmental Policy Act (NEPA) environmental assessment or environmental impact statement. In accordance with the FAA Order 1050.1D, appendix 4, paragraph 4(j), this rulemaking action qualifies for a categorical exclusion.

#### **Energy Impact**

The energy impact of this rule has been assessed in accordance with 42 U.S.C. 6362, "Energy Conservation Policies and Practices," and Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use." It has been determined that the final rule is not a major regulatory action as identified in 42 U.S.C. 6362 or is not a significant energy action, as defined in Executive Order 13211.

#### **List of Subjects**

##### *14 CFR Part 121*

Air Carriers, Aircraft, Airmen, Aviation safety, Charter flights, Reporting and recordkeeping requirements, Safety, Transportation.

##### *14 CFR Part 61*

Aircraft, Airmen, Recreation and recreation areas, Reporting and recordkeeping requirements.

##### *14 CFR Part 91*

Aircraft, Airworthiness directives and standards, Aviation safety, Safety.

##### *14 CFR Part 119*

Administrative practice and procedure, Air carriers, Aircraft, Aviation safety, Charter flights, Reporting and recordkeeping requirements.

##### *14 CFR Part 125*

Aircraft, Airmen, Aviation safety, Reporting and recordkeeping requirements.

##### *14 CFR Part 135*

Aircraft, Airplanes, Airworthiness, Airmen, Rotorcraft, Aviation safety, Safety.

##### *14 CFR Part 142*

Training center.

#### **The Amendment**

■ In consideration of the foregoing, the Federal Aviation Administration

amends parts 21, 61, 91, 119, 125, 135, and 142 of title 14, Code of Federal Regulations as follows:

**PART 21—CERTIFICATION PROCEDURES FOR PRODUCTS AND PARTS**

■ 1. The authority citation for part 21 continues to read as follows:

**Authority:** 42 U.S.C. 7572; 49 U.S.C. 106(g); 40105, 40113, 44701–44702, 44707, 44709, 44711, 44713, 44715, 45303.

■ 2. Amend § 21.197 by adding paragraph (c)(3) to read as follows:

**§ 21.197 Special flight permits.**

\* \* \* \* \*

(c) \* \* \*

(3) Management specification holders authorized to conduct operations under part 91, subpart K, for those aircraft they operate and maintain under a continuous airworthiness maintenance program prescribed by § 91.1411 of this part.

**PART 61—CERTIFICATION: PILOTS, FLIGHT INSTRUCTORS, AND GROUND INSTRUCTORS**

■ 3. The authority citation for part 61 continues to read as follows:

**Authority:** 49 U.S.C. 106(g), 40113, 44701–44703, 44707, 44709–44711, 45102–45103, 45301–45302.

■ 4. Amend § 61.55 by revising paragraphs (d)(1) and (2) to read as follows:

**§ 61.55 Second-in-command qualifications.**

\* \* \* \* \*

(d) \* \* \*

(1) Designated and qualified as pilot in command under subpart K of part 91, part 121, 125, or 135 of this chapter in that specific type of aircraft;

(2) Designated as the second in command under subpart K of part 91, part 121, 125, or 135 of this chapter in that specific type of aircraft;

\* \* \* \* \*

■ 5. Amend § 61.57 by revising paragraphs (d)(2)(iii) and (e)(3) as follows:

**§ 61.57 Recent flight experience: Pilot in command.**

\* \* \* \* \*

(d) *Instrument proficiency check.*

\* \* \*

(2) \* \* \*

(iii) A company check pilot who is authorized to conduct instrument flight tests under part 121, 125, or 135 of this chapter or subpart K of part 91 of this chapter, and provided that both the check pilot and the pilot being tested

are employees of that operator or fractional ownership program manager, as applicable;

\* \* \* \* \*

(e) *Exceptions.* \* \* \*

(3) Paragraph (b) of this section does not apply to a pilot in command of a turbine-powered airplane that is type certificated for more than one pilot crewmember, provided that pilot has complied with the requirements of paragraph (e)(3)(i) or (ii) of this section:

(i) The pilot in command must hold at least a commercial pilot certificate with the appropriate category, class, and type rating for each airplane that is type certificated for more than one pilot crewmember that the pilot seeks to operate under this alternative, and:

(A) That pilot must have logged at least 1,500 hours of aeronautical experience as a pilot;

(B) In each airplane that is type certificated for more than one pilot crewmember that the pilot seeks to operate under this alternative, that pilot must have accomplished and logged the daytime takeoff and landing recent flight experience of paragraph (a) of this section, as the sole manipulator of the flight controls;

(C) Within the preceding 90 days prior to the operation of that airplane that is type certificated for more than one pilot crewmember, the pilot must have accomplished and logged at least 15 hours of flight time in the type of airplane that the pilot seeks to operate under this alternative; and

(D) That pilot has accomplished and logged at least 3 takeoffs and 3 landings to a full stop, as the sole manipulator of the flight controls, in a turbine-powered airplane that requires more than one pilot crewmember. The pilot must have performed the takeoffs and landings during the period beginning 1 hour after sunset and ending 1 hour before sunrise within the preceding 6 months prior to the month of the flight.

(ii) The pilot in command must hold at least a commercial pilot certificate with the appropriate category, class, and type rating for each airplane that is type certificated for more than one pilot crewmember that the pilot seeks to operate under this alternative, and:

(A) That pilot must have logged at least 1,500 hours of aeronautical experience as a pilot;

(B) In each airplane that is type certificated for more than one pilot crewmember that the pilot seeks to operate under this alternative, that pilot must have accomplished and logged the daytime takeoff and landing recent flight experience of paragraph (a) of this section, as the sole manipulator of the flight controls;

(C) Within the preceding 90 days prior to the operation of that airplane that is type certificated for more than one pilot crewmember, the pilot must have accomplished and logged at least 15 hours of flight time in the type of airplane that the pilot seeks to operate under this alternative; and

(D) Within the preceding 12 months prior to the month of the flight, the pilot must have completed a training program that is approved under part 142 of this chapter. The approved training program must have required and the pilot must have performed, at least 6 takeoffs and 6 landings to a full stop as the sole manipulator of the controls in a flight simulator that is representative of a turbine-powered airplane that requires more than one pilot crewmember. The flight simulator's visual system must have been adjusted to represent the period beginning 1 hour after sunset and ending 1 hour before sunrise.

■ 6. Amend § 61.58 by revising paragraphs (b) and (c) to read as follows:

**§ 61.58 Pilot-in-command proficiency check: Operation of aircraft requiring more than one pilot flight crewmember.**

\* \* \* \* \*

(b) This section does not apply to persons conducting operations under subpart K of part 91, part 121, 125, 133, 135, or 137 of this chapter, or persons maintaining continuing qualification under an Advanced Qualification program approved under SFAR 58.

(c) The pilot-in-command proficiency check given in accordance with the provisions of subpart K of part 91, part 121, 125, or 135 of this chapter may be used to satisfy the requirements of this section.

\* \* \* \* \*

■ 7. Amend § 61.63 by revising the introductory text of paragraph (d)(7) and paragraph (d)(7)(ii) to read as follows:

**§ 61.63 Additional aircraft ratings (other than on an airline transport pilot certificate).**

\* \* \* \* \*

(d) \* \* \*

(7) In the case of a pilot employee of a certificate holder operating under part 121 or 135 of this chapter or of a fractional ownership program manager under subpart K of part 91 of this chapter, must have—

\* \* \* \* \*

(ii) Received an endorsement in his or her flight training record from the certificate holder or program manager attesting that the applicant has completed the certificate holder's or program manager's approved ground and flight training program appropriate to the aircraft type rating sought.

\* \* \* \* \*

■ 8. Amend § 61.157 by revising paragraphs (c) and (f)(1) to read as follows:

**§ 61.157 Flight proficiency.**

(c) *Exceptions.* A person who is applying for an aircraft type rating to be added to an airline transport pilot certificate or an aircraft type rating concurrently with an airline transport pilot certificate, and who is an employee of a certificate holder operating under part 121 or 135 of this chapter or of a fractional ownership program manager operating under subpart K of part 91 of this chapter, need not comply with the requirements of paragraph (b) of this section if the applicant presents a training record that shows satisfactory completion of that certificate holder's or program manager's approved pilot-in-command training program for the aircraft type rating sought.

(f) Proficiency and competency checks conducted under part 121, part 135, or subpart K of part 91. (1) Successful completion of any of the following checks satisfy the requirements of this section for the appropriate aircraft rating:

- (i) A proficiency check under § 121.441 of this chapter.
- (ii) Both a competency check under § 135.293 of this chapter and a pilot-in-command instrument proficiency check under § 135.297 of this chapter.
- (iii) Both a competency check under § 91.1065 of this chapter and a pilot-in-command instrument proficiency check under § 91.1069 of this chapter.

■ 9. Amend § 61.159 by revising paragraph (c)(1)(ii) to read as follows:

**§ 61.159 Aeronautical experience: Airplane category rating.**

- (c) \* \* \*
- (1) \* \* \*
- (ii) Engaged in operations under subpart K of part 91, part 121, or part 135 of this chapter for which a second in command is required; or

**PART 91—GENERAL OPERATING AND FLIGHT RULES**

■ 10. The authority citation for part 91 continues to read as follows:

**Authority:** 49 U.S.C. 106(g), 1155, 40103, 40113, 40120, 44101, 44111, 44701, 44709, 44711, 44712, 44715, 44716, 44717, 44722, 46306, 46315, 46316, 46504, 46506–46507, 47122, 47508, 47528–47531, articles 12 and 29 of the Convention on International Civil Aviation (61 stat. 1180).

■ 11. Amend § 91.189 by revising paragraph (g) to read as follows:

**§ 91.189 Category II and III operations: General operating rules.**

(g) Paragraphs (a) through (f) of this section do not apply to operations conducted by certificate holders operating under part 121, 125, 129, or 135 of this chapter, or holders of management specifications issued in accordance with subpart K of this part. Holders of operations specifications or management specifications may operate a civil aircraft in a Category II or Category III operation only in accordance with their operations specifications or management specifications, as applicable.

■ 12. Amend § 91.191 by revising paragraph (c) to read as follows:

**§ 91.191 Category II and Category III manual.**

(c) This section does not apply to operations conducted by a certificate holder operating under part 121 or part 135 of this chapter or a holder of management specifications issued in accordance with subpart K of this part.

■ 13. Amend § 91.213 by revising paragraph (c) to read as follows:

**§ 91.213 Inoperative instruments and equipment.**

(c) A person authorized to use an approved Minimum Equipment List issued for a specific aircraft under subpart K of this part, part 121, 125, or 135 of this chapter must use that Minimum Equipment List to comply with the requirements in this section.

■ 14. Amend § 91.401 by revising paragraph (b) as follows:

**§ 91.401 Applicability.**

(a) Sections 91.405, 91.409, 91.411, 91.417, and 91.419 of this subpart do not apply to an aircraft maintained in accordance with a continuous airworthiness maintenance program as provided in part 121, 129, or §§ 91.1411 or 135.411(a)(2) of this chapter.

■ 15. Amend § 91.415 by revising paragraphs (a) and (c) as follows:

**§ 91.415 Changes to aircraft inspection programs.**

(a) Whenever the Administrator finds that revisions to an approved aircraft inspection program under § 91.409(f)(4) or § 91.1109 are necessary for the continued adequacy of the program, the

owner or operator must, after notification by the Administrator, make any changes in the program found to be necessary by the Administrator.

(c) The petition must be filed with the Director, Flight Standards Service within 30 days after the certificate holder or fractional ownership program manager receives the notice.

■ 16. Revise the title of subpart F to read as follows:

**Subpart F—Large and Turbine-Powered Multiengine Airplanes and Fractional Ownership Program Aircraft**

■ 17. Amend § 91.501 by revising paragraph (a), republishing the introductory text of paragraph (b) and adding paragraph (b)(10) to read as follows:

**§ 91.501 Applicability.**

(a) This subpart prescribes operating rules, in addition to those prescribed in other subparts of this part, governing the operation of large airplanes of U.S. registry, turbojet-powered multiengine civil airplanes of U.S. registry, and fractional ownership program aircraft of U.S. registry that are operating under subpart K of this part in operations not involving common carriage. The operating rules in this subpart do not apply to those aircraft when they are required to be operated under parts 121, 125, 129, 135, and 137 of this chapter. (Section 91.409 prescribes an inspection program for large and for turbine-powered (turbojet and turboprop) multiengine airplanes and turbine-powered rotorcraft of U.S. registry when they are operated under this part or part 129 or 137.)

(b) Operations that may be conducted under the rules in this subpart instead of those in parts 121, 129, 135, and 137 of this chapter when common carriage is not involved, include—

(10) Any operation identified in paragraphs (b)(1) through (b)(9) of this section when conducted—

(i) By a fractional ownership program manager, or

(ii) By a fractional owner in a fractional ownership program aircraft operated under subpart K of this part, except that a flight under a joint ownership arrangement under paragraph (b)(6) of this section may not be conducted. For a flight under an interchange agreement under paragraph (b)(6) of this section, the exchange of equal time for the operation must be properly accounted for as part of the

total hours associated with the fractional owner's share of ownership.

\* \* \* \* \*

■ 18. Amend § 91.509 by revising paragraphs (b) introductory text, (c), (d) and (e) and adding paragraph (f) to read as follows:

**§ 91.509 Survival equipment for overwater operations.**

\* \* \* \* \*

(b) Except as provided in paragraph (c) of this section, no person may take off an airplane for flight over water more than 30 minutes flying time or 100 nautical miles from the nearest shore, whichever is less, unless it has on board the following survival equipment:

\* \* \* \* \*

(c) A fractional ownership program manager under subpart K of this part may apply for a deviation from paragraphs (b)(2) through (5) of this section for a particular over water operation or the Administrator may amend the management specifications to require the carriage of all or any specific items of the equipment listed in paragraphs (b)(2) through (5) of this section.

(d) The required life rafts, life preservers, and signaling devices must be installed in conspicuously marked locations and easily accessible in the event of a ditching without appreciable time for preparatory procedures.

(e) A survival kit, appropriately equipped for the route to be flown, must be attached to each required life raft.

(f) As used in this section, the term shore means that area of the land adjacent to the water that is above the high water mark and excludes land areas that are intermittently under water.

■ 19. Amend § 91.519 by adding paragraph (d) as follows:

**§ 91.519 Passenger briefing.**

\* \* \* \* \*

(d) For operations under subpart K of this part, the passenger briefing requirements of § 91.1035 apply, instead of the requirements of paragraphs (a) through (c) of this section.

■ 20. Amend § 91.531 by revising the introductory text of paragraph (a) and adding paragraph (d) to read as follows:

**§ 91.531 Second in command requirements.**

(a) Except as provided in paragraph (b) and (d) of this section, no person may operate the following airplanes without a pilot who is designated as second in command of that airplane:

\* \* \* \* \*

(d) No person may operate an aircraft under subpart K of this part without a

pilot who is designated as second in command of that aircraft in accordance with § 91.1049(d). The second in command must meet the experience requirements of § 91.1053.

■ 21. Add subpart K to part 91 of title 14 Code of Federal Regulations to read as follows:

**Subpart K—Fractional Ownership Operations**

Sec.

- 91.1001 Applicability.
- 91.1002 Compliance date.
- 91.1003 Management contract between owner and program manager.
- 91.1005 Prohibitions and limitations.
- 91.1007 Flights conducted under part 121 or part 135 of this chapter.
- 91.1009 Clarification of operational control.
- 91.1011 Operational control responsibilities and delegation.
- 91.1013 Operational control briefing and acknowledgment.
- 91.1014 Issuing or denying management specifications.
- 91.1015 Management specifications.
- 91.1017 Amending program manager's management specifications.
- 91.1019 Conducting tests and inspections.
- 91.1021 Internal safety reporting and incident/accident response.
- 91.1023 Program operating manual requirements.
- 91.1025 Program operating manual contents.
- 91.1027 Recordkeeping.
- 91.1029 Flight scheduling and locating requirements.
- 91.1031 Pilot in command or second in command: Designation required.
- 91.1033 Operating information required.
- 91.1035 Passenger awareness.
- 91.1037 Large transport category airplanes: Turbine engine powered; Limitations; Destination and alternate airports.
- 91.1039 IFR takeoff, approach and landing minimums.
- 91.1041 Aircraft proving and validation tests.
- 91.1043 [Reserved].
- 91.1045 Additional equipment requirements.
- 91.1047 Drug and alcohol misuse education program.
- 91.1049 Personnel.
- 91.1051 Pilot safety background check.
- 91.1053 Crewmember experience.
- 91.1055 Pilot operating limitations and pairing requirement.
- 91.1057 Flight, duty and rest time requirements; All crewmembers.
- 91.1059 Flight time limitations and rest requirements: One or two pilot crews.
- 91.1061 Augmented flight crews.
- 91.1062 Duty periods and rest requirements: Flight attendants.
- 91.1063 Testing and training: Applicability and terms used.
- 91.1065 Initial and recurrent pilot testing requirements.
- 91.1067 Initial and recurrent flight attendant crewmember testing requirements.
- 91.1069 Flight crew: Instrument proficiency check requirements.

- 91.1071 Crewmember: Tests and checks, grace provisions, training to accepted standards.
- 91.1073 Training program: General.
- 91.1075 Training program: Special rules.
- 91.1077 Training program and revision: Initial and final approval.
- 91.1079 Training program: Curriculum.
- 91.1081 Crewmember training requirements.
- 91.1083 Crewmember emergency training.
- 91.1085 Hazardous materials recognition training.
- 91.1087 Approval of aircraft simulators and other training devices.
- 91.1089 Qualifications: Check pilots (aircraft) and check pilots (simulator).
- 91.1091 Qualifications: Flight instructors (aircraft) and flight instructors (simulator).
- 91.1093 Initial and transition training and checking: Check pilots (aircraft), check pilots (simulator).
- 91.1095 Initial and transition training and checking: Flight instructors (aircraft), flight instructors (simulator).
- 91.1097 Pilot and flight attendant crewmember training programs.
- 91.1099 Crewmember initial and recurrent training requirements.
- 91.1101 Pilots: Initial, transition, and upgrade ground training.
- 91.1103 Pilots: Initial, transition, upgrade, requalification, and differences flight training.
- 91.1105 Flight attendants: Initial and transition ground training.
- 91.1107 Recurrent training.
- 91.1109 Aircraft maintenance: Inspection program.
- 91.1111 Maintenance training.
- 91.1113 Maintenance recordkeeping.
- 91.1115 Inoperable instruments and equipment.
- 91.1411 Continuous airworthiness maintenance program use by fractional ownership program manager.
- 91.1413 CAMP: Responsibility for airworthiness.
- 91.1415 CAMP: Mechanical reliability reports.
- 91.1417 CAMP: Mechanical interruption summary report.
- 91.1423 CAMP: Maintenance organization.
- 91.1425 CAMP: Maintenance, preventive maintenance, and alteration programs.
- 91.1427 CAMP: Manual requirements.
- 91.1429 CAMP: Required inspection personnel.
- 91.1431 CAMP: Continuing analysis and surveillance.
- 91.1433 CAMP: Maintenance and preventive maintenance training program.
- 91.1435 CAMP: Certificate requirements.
- 91.1437 CAMP: Authority to perform and approve maintenance.
- 91.1439 CAMP: Maintenance recording requirements.
- 91.1441 CAMP: Transfer of maintenance records.
- 91.1443 CAMP: Airworthiness release or aircraft maintenance log entry.

## Subpart K—Fractional Ownership Operations

### § 91.1001 Applicability.

(a) This subpart prescribes rules, in addition to those prescribed in other subparts of this part, that apply to fractional owners and fractional ownership program managers governing—

(1) The provision of program management services in a fractional ownership program;

(2) The operation of a fractional ownership program aircraft in a fractional ownership program; and

(3) The operation of a program aircraft included in a fractional ownership program managed by an affiliate of the manager of the program to which the owner belongs.

(b) As used in this part—

(1) *Affiliate of a program manager* means a manager that, directly, or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, another program manager. The holding of at least forty percent (40 percent) of the equity and forty percent (40 percent) of the voting power of an entity will be presumed to constitute control for purposes of determining an affiliation under this subpart.

(2) *A dry-lease aircraft exchange* means an arrangement, documented by the written program agreements, under which the program aircraft are available, on an as needed basis without crew, to each fractional owner.

(3) *A fractional owner or owner* means an individual or entity that possesses a minimum fractional ownership interest in a program aircraft and that has entered into the applicable program agreements; provided, however, that in the case of the flight operations described in paragraph (b)(6)(ii) of this section, and solely for purposes of requirements pertaining to those flight operations, the fractional owner operating the aircraft will be deemed to be a fractional owner in the program managed by the affiliate.

(4) *A fractional ownership interest* means the ownership of an interest or holding of a multi-year leasehold interest and/or a multi-year leasehold interest that is convertible into an ownership interest in a program aircraft.

(5) *A fractional ownership program or program* means any system of aircraft ownership and exchange that consists of all of the following elements:

(i) The provision for fractional ownership program management services by a single fractional ownership program manager on behalf of the fractional owners.

(ii) Two or more airworthy aircraft.

(iii) One or more fractional owners per program aircraft, with at least one program aircraft having more than one owner.

(iv) Possession of at least a minimum fractional ownership interest in one or more program aircraft by each fractional owner.

(v) A dry-lease aircraft exchange arrangement among all of the fractional owners.

(vi) Multi-year program agreements covering the fractional ownership, fractional ownership program management services, and dry-lease aircraft exchange aspects of the program.

(6) *A fractional ownership program aircraft or program aircraft* means:

(i) An aircraft in which a fractional owner has a minimal fractional ownership interest and that has been included in the dry-lease aircraft exchange pursuant to the program agreements, or

(ii) In the case of a fractional owner from one program operating an aircraft in a different fractional ownership program managed by an affiliate of the operating owner's program manager, the aircraft being operated by the fractional owner, so long as the aircraft is:

(A) Included in the fractional ownership program managed by the affiliate of the operating owner's program manager, and

(B) Included in the operating owner's program's dry-lease aircraft exchange pursuant to the program agreements of the operating owner's program.

(iii) An aircraft owned in whole or in part by the program manager that has been included in the dry-lease aircraft exchange and is used to supplement program operations.

(7) *A Fractional Ownership Program Flight or Program Flight* means a flight under this subpart when one or more passengers or property designated by a fractional owner are on board the aircraft.

(8) *Fractional ownership program management services or program management services* mean administrative and aviation support services furnished in accordance with the applicable requirements of this subpart or provided by the program manager on behalf of the fractional owners, including, but not limited to, the—

(i) Establishment and implementation of program safety guidelines;

(ii) Employment, furnishing, or contracting of pilots and other crewmembers;

(iii) Training and qualification of pilots and other crewmembers and personnel;

(iv) Scheduling and coordination of the program aircraft and crews;

(v) Maintenance of program aircraft;

(vi) Satisfaction of recordkeeping requirements;

(vii) Development and use of a program operations manual and procedures; and

(viii) Application for and maintenance of management specifications and other authorizations and approvals.

(9) *A fractional ownership program manager or program manager* means the entity that offers fractional ownership program management services to fractional owners, and is designated in the multi-year program agreements referenced in paragraph (b)(1)(v) of this section to fulfill the requirements of this chapter applicable to the manager of the program containing the aircraft being flown. When a fractional owner is operating an aircraft in a fractional ownership program managed by an affiliate of the owner's program manager, the references in this subpart to the flight-related responsibilities of the program manager apply, with respect to that particular flight, to the affiliate of the owner's program manager rather than to the owner's program manager.

(10) *A minimum fractional ownership interest* means—

(i) A fractional ownership interest equal to, or greater than, one-sixteenth ( $\frac{1}{16}$ ) of at least one subsonic, fixed-wing or powered-lift program aircraft; or

(ii) A fractional ownership interest equal to, or greater than, one-thirty-second ( $\frac{1}{32}$ ) of at least one rotorcraft program aircraft.

(c) The rules in this subpart that refer to a fractional owner or a fractional ownership program manager also apply to any person who engages in an operation governed by this subpart without the management specifications required by this subpart.

### § 91.1002 Compliance date.

No person that conducted flights before October 17, 2003 under a program that meets the definition of fractional ownership program in § 91.1001 may conduct such flights after December 17, 2004 unless it has obtained management specifications under this subpart.

### § 91.1003 Management contract between owner and program manager.

Each owner must have a contract with the program manager that—

(a) Requires the program manager to ensure that the program conforms to all applicable requirements of this chapter.

(b) Provides the owner the right to inspect and to audit, or have a designee of the owner inspect and audit, the records of the program manager pertaining to the operational safety of the program and those records required to show compliance with the management specifications and all applicable regulations. These records include, but are not limited to, the management specifications, authorizations, approvals, manuals, log books, and maintenance records maintained by the program manager.

(c) Designates the program manager as the owner's agent to receive service of notices pertaining to the program that the FAA seeks to provide to owners and authorizes the FAA to send such notices to the program manager in its capacity as the agent of the owner for such service.

(d) Acknowledges the FAA's right to contact the owner directly if the Administrator determines that direct contact is necessary.

**§ 91.1005 Prohibitions and limitations.**

(a) Except as provided in § 91.321 or § 91.501, no owner may carry persons or property for compensation or hire on a program flight.

(b) During the term of the multi-year program agreements under which a fractional owner has obtained a minimum fractional ownership interest in a program aircraft, the flight hours used during that term by the owner on program aircraft must not exceed the total hours associated with the fractional owner's share of ownership.

(c) No person may sell or lease an aircraft interest in a fractional ownership program that is smaller than that prescribed in the definition of "minimum fractional ownership interest" in § 91.1001(b)(10) unless flights associated with that interest are operated under part 121 or 135 of this chapter and are conducted by an air carrier or commercial operator certificated under part 119 of this chapter.

**§ 91.1007 Flights conducted under part 121 or part 135 of this chapter.**

(a) Except as provided in § 91.501(b), when a nonprogram aircraft is used to substitute for a program flight, the flight must be operated in compliance with part 121 or part 135 of this chapter, as applicable.

(b) A program manager who holds a certificate under part 119 of this chapter may conduct a flight for the use of a fractional owner under part 121 or part

135 of this chapter if the aircraft is listed on that certificate holder's operations specifications for part 121 or part 135, as applicable.

(c) The fractional owner must be informed when a flight is being conducted as a program flight or is being conducted under part 121 or part 135 of this chapter.

**Operational Control**

**§ 91.1009 Clarification of operational control.**

(a) An owner is in operational control of a program flight when the owner—

(1) Has the rights and is subject to the limitations set forth in §§ 91.1003 through 91.1013;

(2) Has directed that a program aircraft carry passengers or property designated by that owner; and

(3) The aircraft is carrying those passengers or property.

(b) An owner is not in operational control of a flight in the following circumstances:

(1) A program aircraft is used for a flight for administrative purposes such as demonstration, positioning, ferrying, maintenance, or crew training, and no passengers or property designated by such owner are being carried; or

(2) The aircraft being used for the flight is being operated under part 121 or 135 of this chapter.

**§ 91.1011 Operational control responsibilities and delegation.**

(a) Each owner in operational control of a program flight is ultimately responsible for safe operations and for complying with all applicable requirements of this chapter, including those related to airworthiness and operations in connection with the flight. Each owner may delegate some or all of the performance of the tasks associated with carrying out this responsibility to the program manager, and may rely on the program manager for aviation expertise and program management services. When the owner delegates performance of tasks to the program manager or relies on the program manager's expertise, the owner and the program manager are jointly and individually responsible for compliance.

(b) The management specifications, authorizations, and approvals required by this subpart are issued to, and in the sole name of, the program manager on behalf of the fractional owners collectively. The management specifications, authorizations, and approvals will not be affected by any change in ownership of a program aircraft, as long as the aircraft remains

a program aircraft in the identified program.

**§ 91.1013 Operational control briefing and acknowledgment.**

(a) Upon the signing of an initial program management services contract, or a renewal or extension of a program management services contract, the program manager must brief the fractional owner on the owner's operational control responsibilities, and the owner must review and sign an acknowledgment of these operational control responsibilities. The acknowledgment must be included with the program management services contract. The acknowledgment must define when a fractional owner is in operational control and the owner's responsibilities and liabilities under the program. These include:

(1) Responsibility for compliance with the management specifications and all applicable regulations.

(2) Enforcement actions for any noncompliance.

(3) Liability risk in the event of a flight-related occurrence that causes personal injury or property damage.

(b) The fractional owner's signature on the acknowledgment will serve as the owner's affirmation that the owner has read, understands, and accepts the operational control responsibilities described in the acknowledgment.

(c) Each program manager must ensure that the fractional owner or owner's representatives have access to the acknowledgments for such owner's program aircraft. Each program manager must ensure that the FAA has access to the acknowledgments for all program aircraft.

**Program Management**

**§ 91.1014 Issuing or denying management specifications.**

(a) A person applying to the Administrator for management specifications under this subpart must submit an application—

(1) In a form and manner prescribed by the Administrator; and

(2) Containing any information the Administrator requires the applicant to submit.

(b) Management specifications will be issued to the program manager on behalf of the fractional owners if, after investigation, the Administrator finds that the applicant:

(1) Meets the applicable requirements of this subpart; and

(2) Is properly and adequately equipped in accordance with the requirements of this chapter and is able to conduct safe operations under appropriate provisions of part 91 of this

chapter and management specifications issued under this subpart.

(c) An application for management specifications will be denied if the Administrator finds that the applicant is not properly or adequately equipped or is not able to conduct safe operations under this part.

**§ 91.1015 Management specifications.**

(a) Each person conducting operations under this subpart or furnishing fractional ownership program management services to fractional owners must do so in accordance with management specifications issued by the Administrator to the fractional ownership program manager under this subpart. Management specifications must include:

(1) The current list of all fractional owners and types of aircraft, registration markings and serial numbers;

(2) The authorizations, limitations, and certain procedures under which these operations are to be conducted,

(3) Certain other procedures under which each class and size of aircraft is to be operated;

(4) Authorization for an inspection program approved under § 91.1109, including the type of aircraft, the registration markings and serial numbers of each aircraft to be operated under the program. No person may conduct any program flight using any aircraft not listed.

(5) Time limitations, or standards for determining time limitations, for overhauls, inspections, and checks for airframes, engines, propellers, rotors, appliances, and emergency equipment of aircraft.

(6) The specific location of the program manager's principal base of operations and, if different, the address that will serve as the primary point of contact for correspondence between the FAA and the program manager and the name and mailing address of the program manager's agent for service;

(7) Other business names the program manager may use;

(8) Authorization for the method of controlling weight and balance of aircraft;

(9) Any authorized deviation and exemption granted from any requirement of this chapter; and

(10) Any other information the Administrator determines is necessary.

(b) The program manager may keep the current list of all fractional owners required by paragraph (a)(1) of this section at its principal base of operation or other location approved by the Administrator and referenced in its management specifications. Each program manager shall make this list of

owners available for inspection by the Administrator.

(c) Management specifications issued under this subpart are effective unless—

(1) The management specifications are amended as provided in § 91.1017; or

(2) The Administrator suspends or revokes the management specifications.

(d) At least 30 days before it proposes to establish or change the location of its principal base of operations, its main operations base, or its main maintenance base, a program manager must provide written notification to the Flight Standards District Office that issued the program manager's management specifications.

(e) Each program manager must maintain a complete and separate set of its management specifications at its principal base of operations, or at a place approved by the Administrator, and must make its management specifications available for inspection by the Administrator and the fractional owner(s) to whom the program manager furnishes its services for review and audit.

(f) Each program manager must insert pertinent excerpts of its management specifications, or references thereto, in its program manual and must—

(1) Clearly identify each such excerpt as a part of its management specifications; and

(2) State that compliance with each management specifications requirement is mandatory.

(g) Each program manager must keep each of its employees and other persons who perform duties material to its operations informed of the provisions of its management specifications that apply to that employee's or person's duties and responsibilities.

**§ 91.1017 Amending program manager's management specifications.**

(a) The Administrator may amend any management specifications issued under this subpart if—

(1) The Administrator determines that safety and the public interest require the amendment of any management specifications; or

(2) The program manager applies for the amendment of any management specifications, and the Administrator determines that safety and the public interest allows the amendment.

(b) Except as provided in paragraph (e) of this section, when the Administrator initiates an amendment of a program manager's management specifications, the following procedure applies:

(1) The Flight Standards District Office that issued the program manager's management specifications

will notify the program manager in writing of the proposed amendment.

(2) The Flight Standards District Office that issued the program manager's management specifications will set a reasonable period (but not less than 7 days) within which the program manager may submit written information, views, and arguments on the amendment.

(3) After considering all material presented, the Flight Standards District Office that issued the program manager's management specifications will notify the program manager of—

(i) The adoption of the proposed amendment,

(ii) The partial adoption of the proposed amendment, or

(iii) The withdrawal of the proposed amendment.

(4) If the Flight Standards District Office that issued the program manager's management specifications issues an amendment of the management specifications, it becomes effective not less than 30 days after the program manager receives notice of it unless—

(i) The Flight Standards District Office that issued the program manager's management specifications finds under paragraph (e) of this section that there is an emergency requiring immediate action with respect to safety; or

(ii) The program manager petitions for reconsideration of the amendment under paragraph (d) of this section.

(c) When the program manager applies for an amendment to its management specifications, the following procedure applies:

(1) The program manager must file an application to amend its management specifications—

(i) At least 90 days before the date proposed by the applicant for the amendment to become effective, unless a shorter time is approved, in cases such as mergers, acquisitions of operational assets that require an additional showing of safety (for example, proving tests or validation tests), and resumption of operations following a suspension of operations as a result of bankruptcy actions.

(ii) At least 15 days before the date proposed by the applicant for the amendment to become effective in all other cases.

(2) The application must be submitted to the Flight Standards District Office that issued the program manager's management specifications in a form and manner prescribed by the Administrator.

(3) After considering all material presented, the Flight Standards District Office that issued the program

manager's management specifications will notify the program manager of—

- (i) The adoption of the applied for amendment;
- (ii) The partial adoption of the applied for amendment; or
- (iii) The denial of the applied for amendment. The program manager may petition for reconsideration of a denial under paragraph (d) of this section.

(4) If the Flight Standards District Office that issued the program manager's management specifications approves the amendment, following coordination with the program manager regarding its implementation, the amendment is effective on the date the Administrator approves it.

(d) When a program manager seeks reconsideration of a decision of the Flight Standards District Office that issued the program manager's management specifications concerning the amendment of management specifications, the following procedure applies:

(1) The program manager must petition for reconsideration of that decision within 30 days of the date that the program manager receives a notice of denial of the amendment of its management specifications, or of the date it receives notice of an FAA-initiated amendment of its management specifications, whichever circumstance applies.

(2) The program manager must address its petition to the Director, Flight Standards Service.

(3) A petition for reconsideration, if filed within the 30-day period, suspends the effectiveness of any amendment issued by the Flight Standards District Office that issued the program manager's management specifications unless that District Office has found, under paragraph (e) of this section, that an emergency exists requiring immediate action with respect to safety.

(4) If a petition for reconsideration is not filed within 30 days, the procedures of paragraph (c) of this section apply.

(e) If the Flight Standards District Office that issued the program manager's management specifications finds that an emergency exists requiring immediate action with respect to safety that makes the procedures set out in this section impracticable or contrary to the public interest—

(1) The Flight Standards District Office amends the management specifications and makes the amendment effective on the day the program manager receives notice of it; and

(2) In the notice to the program manager, the Flight Standards District Office will articulate the reasons for its

finding that an emergency exists requiring immediate action with respect to safety or that makes it impracticable or contrary to the public interest to stay the effectiveness of the amendment.

#### **§ 91.1019 Conducting tests and inspections.**

(a) At any time or place, the Administrator may conduct an inspection or test, other than an en route inspection, to determine whether a program manager under this subpart is complying with title 49 of the United States Code, applicable regulations, and the program manager's management specifications.

(b) The program manager must—

(1) Make available to the Administrator at the program manager's principal base of operations, or at a place approved by the Administrator, the program manager's management specifications; and

(2) Allow the Administrator to make any test or inspection, other than an en route inspection, to determine compliance respecting any matter stated in paragraph (a) of this section.

(c) Each employee of, or person used by, the program manager who is responsible for maintaining the program manager's records required by or necessary to demonstrate compliance with this subpart must make those records available to the Administrator.

(d) The Administrator may determine a program manager's continued eligibility to hold its management specifications on any grounds listed in paragraph (a) of this section, or any other appropriate grounds.

(e) Failure by any program manager to make available to the Administrator upon request, the management specifications, or any required record, document, or report is grounds for suspension of all or any part of the program manager's management specifications.

#### **§ 91.1021 Internal safety reporting and incident/accident response.**

(a) Each program manager must establish an internal anonymous safety reporting procedure that fosters an environment of safety without any potential for retribution for filing the report.

(b) Each program manager must establish procedures to respond to an aviation incident/accident.

#### **§ 91.1023 Program operating manual requirements.**

(a) Each program manager must prepare and keep current a program operating manual setting forth procedures and policies acceptable to the Administrator. The program

manager's management, flight, ground, and maintenance personnel must use this manual to conduct operations under this subpart. However, the Administrator may authorize a deviation from this paragraph if the Administrator finds that, because of the limited size of the operation, part of the manual is not necessary for guidance of management, flight, ground, or maintenance personnel.

(b) Each program manager must maintain at least one copy of the manual at its principal base of operations.

(c) No manual may be contrary to any applicable U.S. regulations, foreign regulations applicable to the program flights in foreign countries, or the program manager's management specifications.

(d) The program manager must make a copy of the manual, or appropriate portions of the manual (and changes and additions), available to its maintenance and ground operations personnel and must furnish the manual to—

(1) Its crewmembers; and

(2) Representatives of the Administrator assigned to the program manager.

(e) Each employee of the program manager to whom a manual or appropriate portions of it are furnished under paragraph (d)(1) of this section must keep it up-to-date with the changes and additions furnished to them.

(f) Except as provided in paragraph (h) of this section, the appropriate parts of the manual must be carried on each aircraft when away from the principal operations base. The appropriate parts must be available for use by ground or flight personnel.

(g) For the purpose of complying with paragraph (d) of this section, a program manager may furnish the persons listed therein with all or part of its manual in printed form or other form, acceptable to the Administrator, that is retrievable in the English language. If the program manager furnishes all or part of the manual in other than printed form, it must ensure there is a compatible reading device available to those persons that provides a legible image of the maintenance information and instructions, or a system that is able to retrieve the maintenance information and instructions in the English language.

(h) If a program manager conducts aircraft inspections or maintenance at specified facilities where the approved aircraft inspection program is available, the program manager is not required to ensure that the approved aircraft

inspection program is carried aboard the aircraft en route to those facilities.

(i) Program managers that are also certificated to operate under part 121 or 135 of this chapter may be authorized to use the operating manual required by those parts to meet the manual requirements of subpart K, provided:

(1) The policies and procedures are consistent for both operations, or

(2) When policies and procedures are different, the applicable policies and procedures are identified and used.

**§ 91.1025 Program operating manual contents.**

Each program operating manual must have the date of the last revision on each revised page. Unless otherwise authorized by the Administrator, the manual must include the following:

(a) Procedures for ensuring compliance with aircraft weight and balance limitations;

(b) Copies of the program manager's management specifications or appropriate extracted information, including area of operations authorized, category and class of aircraft authorized, crew complements, and types of operations authorized;

(c) Procedures for complying with accident notification requirements;

(d) Procedures for ensuring that the pilot in command knows that required airworthiness inspections have been made and that the aircraft has been approved for return to service in compliance with applicable maintenance requirements;

(e) Procedures for reporting and recording mechanical irregularities that come to the attention of the pilot in command before, during, and after completion of a flight;

(f) Procedures to be followed by the pilot in command for determining that mechanical irregularities or defects reported for previous flights have been corrected or that correction of certain mechanical irregularities or defects have been deferred;

(g) Procedures to be followed by the pilot in command to obtain maintenance, preventive maintenance, and servicing of the aircraft at a place where previous arrangements have not been made by the program manager or owner, when the pilot is authorized to so act for the operator;

(h) Procedures under § 91.213 for the release of, and continuation of flight if any item of equipment required for the particular type of operation becomes inoperative or unserviceable en route;

(i) Procedures for refueling aircraft, eliminating fuel contamination, protecting from fire (including electrostatic protection), and

supervising and protecting passengers during refueling;

(j) Procedures to be followed by the pilot in command in the briefing under § 91.1035.

(k) Procedures for ensuring compliance with emergency procedures, including a list of the functions assigned each category of required crewmembers in connection with an emergency and emergency evacuation duties;

(l) The approved aircraft inspection program, when applicable;

(m) Procedures for the evacuation of persons who may need the assistance of another person to move expeditiously to an exit if an emergency occurs;

(n) Procedures for performance planning that take into account take off, landing and en route conditions;

(o) An approved Destination Airport Analysis, when required by § 91.1037(c), that includes the following elements, supported by aircraft performance data supplied by the aircraft manufacturer for the appropriate runway conditions—

(1) Pilot qualifications and experience;

(2) Aircraft performance data to include normal, abnormal and emergency procedures as supplied by the aircraft manufacturer;

(3) Airport facilities and topography;

(4) Runway conditions (including contamination);

(5) Airport or area weather reporting;

(6) Appropriate additional runway safety margins, if required;

(7) Airplane inoperative equipment;

(8) Environmental conditions; and

(9) Other criteria that affect aircraft performance.

(p) A suitable system (which may include a coded or electronic system) that provides for preservation and retrieval of maintenance recordkeeping information required by § 91.1113 in a manner acceptable to the Administrator that provides—

(1) A description (or reference to date acceptable to the Administrator) of the work performed;

(2) The name of the person performing the work if the work is performed by a person outside the organization of the program manager; and

(3) The name or other positive identification of the individual approving the work.

(q) Flight locating and scheduling procedures; and

(r) Other procedures and policy instructions regarding program operations that are issued by the program manager or required by the Administrator.

**§ 91.1027 Recordkeeping.**

(a) Each program manager must keep at its principal base of operations or at other places approved by the Administrator, and must make available for inspection by the Administrator all of the following:

(1) The program manager's management specifications.

(2) A current list of the aircraft used or available for use in operations under this subpart, the operations for which each is equipped (for example, MNPS, RNP5/10, RVSM.).

(3) An individual record of each pilot used in operations under this subpart, including the following information:

(i) The full name of the pilot.

(ii) The pilot certificate (by type and number) and ratings that the pilot holds.

(iii) The pilot's aeronautical experience in sufficient detail to determine the pilot's qualifications to pilot aircraft in operations under this subpart.

(iv) The pilot's current duties and the date of the pilot's assignment to those duties.

(v) The effective date and class of the medical certificate that the pilot holds.

(vi) The date and result of each of the initial and recurrent competency tests and proficiency checks required by this subpart and the type of aircraft flown during that test or check.

(vii) The pilot's flight time in sufficient detail to determine compliance with the flight time limitations of this subpart.

(viii) The pilot's check pilot authorization, if any.

(ix) Any action taken concerning the pilot's release from employment for physical or professional disqualification; and

(x) The date of the satisfactory completion of initial, transition, upgrade, and differences training and each recurrent training phase required by this subpart.

(4) An individual record for each flight attendant used in operations under this subpart, including the following information:

(i) The full name of the flight attendant, and

(ii) The date and result of training required by § 91.1063, as applicable.

(5) A current list of all fractional owners and associated aircraft. This list or a reference to its location must be included in the management specifications and should be of sufficient detail to determine the minimum fractional ownership interest of each aircraft.

(b) Each program manager must keep each record required by paragraph (a)(2) of this section for at least 6 months, and

must keep each record required by paragraphs (a)(3) and (a)(4) of this section for at least 12 months. When an employee is no longer employed or affiliated with the program manager or fractional owner, each record required by paragraphs (a)(3) and (a)(4) of this section must be retained for at least 12 months.

(c) Each program manager is responsible for the preparation and accuracy of a load manifest in duplicate containing information concerning the loading of the aircraft. The manifest must be prepared before each takeoff and must include—

- (1) The number of passengers;
- (2) The total weight of the loaded aircraft;
- (3) The maximum allowable takeoff weight for that flight;
- (4) The center of gravity limits;
- (5) The center of gravity of the loaded aircraft, except that the actual center of gravity need not be computed if the aircraft is loaded according to a loading schedule or other approved method that ensures that the center of gravity of the loaded aircraft is within approved limits. In those cases, an entry must be made on the manifest indicating that the center of gravity is within limits according to a loading schedule or other approved method;
- (6) The registration number of the aircraft or flight number;
- (7) The origin and destination; and
- (8) Identification of crewmembers and their crew position assignments.

(d) The pilot in command of the aircraft for which a load manifest must be prepared must carry a copy of the completed load manifest in the aircraft to its destination. The program manager must keep copies of completed load manifest for at least 30 days at its principal operations base, or at another location used by it and approved by the Administrator.

(e) Each program manager is responsible for providing a written document that states the name of the entity having operational control on that flight and the part of this chapter under which the flight is operated. The pilot in command of the aircraft must carry a copy of the document in the aircraft to its destination. The program manager must keep a copy of the document for at least 30 days at its principal operations base, or at another location used by it and approved by the Administrator.

(f) Records may be kept either in paper or other form acceptable to the Administrator.

(g) Program managers that are also certificated to operate under part 121 or 135 of this chapter may satisfy the

recordkeeping requirements of this section and of § 91.1113 with records maintained to fulfill equivalent obligations under part 121 or 135 of this chapter.

#### **§ 91.1029 Flight scheduling and locating requirements.**

(a) Each program manager must establish and use an adequate system to schedule and release program aircraft.

(b) Except as provided in paragraph (d) of this section, each program manager must have adequate procedures established for locating each flight, for which a flight plan is not filed, that—

- (1) Provide the program manager with at least the information required to be included in a VFR flight plan;
- (2) Provide for timely notification of an FAA facility or search and rescue facility, if an aircraft is overdue or missing; and
- (3) Provide the program manager with the location, date, and estimated time for reestablishing radio or telephone communications, if the flight will operate in an area where communications cannot be maintained.

(c) Flight locating information must be retained at the program manager's principal base of operations, or at other places designated by the program manager in the flight locating procedures, until the completion of the flight.

(d) The flight locating requirements of paragraph (b) of this section do not apply to a flight for which an FAA flight plan has been filed and the flight plan is canceled within 25 nautical miles of the destination airport.

#### **§ 91.1031 Pilot in command or second in command: Designation required.**

(a) Each program manager must designate a—

- (1) Pilot in command for each program flight; and
- (2) Second in command for each program flight requiring two pilots.

(b) The pilot in command, as designated by the program manager, must remain the pilot in command at all times during that flight.

#### **§ 91.1033 Operating information required.**

(a) Each program manager must, for all program operations, provide the following materials, in current and appropriate form, accessible to the pilot at the pilot station, and the pilot must use them—

- (1) A cockpit checklist;
- (2) For multiengine aircraft or for aircraft with retractable landing gear, an emergency cockpit checklist containing the procedures required by paragraph (c) of this section, as appropriate;

(3) At least one set of pertinent aeronautical charts; and

(4) For IFR operations, at least one set of pertinent navigational en route, terminal area, and instrument approach procedure charts.

(b) Each cockpit checklist required by paragraph (a)(1) of this section must contain the following procedures:

- (1) Before starting engines;
- (2) Before takeoff;
- (3) Cruise;
- (4) Before landing;
- (5) After landing; and
- (6) Stopping engines.

(c) Each emergency cockpit checklist required by paragraph (a)(2) of this section must contain the following procedures, as appropriate:

- (1) Emergency operation of fuel, hydraulic, electrical, and mechanical systems.
- (2) Emergency operation of instruments and controls.
- (3) Engine inoperative procedures.
- (4) Any other emergency procedures necessary for safety.

#### **§ 91.1035 Passenger awareness.**

(a) Prior to each takeoff, the pilot in command of an aircraft carrying passengers on a program flight must ensure that all passengers have been orally briefed on—

(1) *Smoking*: Each passenger must be briefed on when, where, and under what conditions smoking is prohibited. This briefing must include a statement, as appropriate, that the regulations require passenger compliance with lighted passenger information signs and no smoking placards, prohibit smoking in lavatories, and require compliance with crewmember instructions with regard to these items;

(2) *Use of safety belts, shoulder harnesses, and child restraint systems*: Each passenger must be briefed on when, where and under what conditions it is necessary to have his or her safety belt and, if installed, his or her shoulder harness fastened about him or her, and if a child is being transported, the appropriate use of child restraint systems, if available. This briefing must include a statement, as appropriate, that the regulations require passenger compliance with the lighted passenger information sign and/or crewmember instructions with regard to these items;

(3) The placement of seat backs in an upright position before takeoff and landing;

(4) Location and means for opening the passenger entry door and emergency exits;

(5) Location of survival equipment;

(6) Ditching procedures and the use of flotation equipment required under § 91.509 for a flight over water;

(7) The normal and emergency use of oxygen installed in the aircraft; and  
 (8) Location and operation of fire extinguishers.

(b) Prior to each takeoff, the pilot in command of an aircraft carrying passengers on a program flight must ensure that each person who may need the assistance of another person to move expeditiously to an exit if an emergency occurs and that person's attendant, if any, has received a briefing as to the procedures to be followed if an evacuation occurs. This paragraph does not apply to a person who has been given a briefing before a previous leg of that flight in the same aircraft.

(c) Prior to each takeoff, the pilot in command must advise the passengers of the name of the entity in operational control of the flight.

(d) The oral briefings required by paragraphs (a), (b), and (c) of this section must be given by the pilot in command or another crewmember.

(e) The oral briefing required by paragraph (a) of this section may be delivered by means of an approved recording playback device that is audible to each passenger under normal noise levels.

(f) The oral briefing required by paragraph (a) of this section must be supplemented by printed cards that must be carried in the aircraft in locations convenient for the use of each passenger. The cards must—

- (1) Be appropriate for the aircraft on which they are to be used;
- (2) Contain a diagram of, and method of operating, the emergency exits; and
- (3) Contain other instructions necessary for the use of emergency equipment on board the aircraft.

**§ 91.1037 Large transport category airplanes: Turbine engine powered; Limitations; Destination and alternate airports.**

(a) No program manager or any other person may permit a turbine engine powered large transport category airplane on a program flight to take off that airplane at a weight that (allowing for normal consumption of fuel and oil in flight to the destination or alternate airport) the weight of the airplane on arrival would exceed the landing weight in the Airplane Flight Manual for the elevation of the destination or alternate airport and the ambient temperature expected at the time of landing.

(b) Except as provided in paragraph (c) of this section, no program manager or any other person may permit a turbine engine powered large transport category airplane on a program flight to take off that airplane unless its weight on arrival, allowing for normal

consumption of fuel and oil in flight (in accordance with the landing distance in the Airplane Flight Manual for the elevation of the destination airport and the wind conditions expected there at the time of landing), would allow a full stop landing at the intended destination airport within 60 percent of the effective length of each runway described below from a point 50 feet above the intersection of the obstruction clearance plane and the runway. For the purpose of determining the allowable landing weight at the destination airport, the following is assumed:

(1) The airplane is landed on the most favorable runway and in the most favorable direction, in still air.

(2) The airplane is landed on the most suitable runway considering the probable wind velocity and direction and the ground handling characteristics of that airplane, and considering other conditions such as landing aids and terrain.

(c) A program manager or other person flying a turbine engine powered large transport category airplane on a program flight may permit that airplane to take off at a weight in excess of that allowed by paragraph (b) of this section if all of the following conditions exist:

(1) The operation is conducted in accordance with an approved Destination Airport Analysis in that person's program operating manual that contains the elements listed in § 91.1025(o).

(2) The airplane's weight on arrival, allowing for normal consumption of fuel and oil in flight (in accordance with the landing distance in the Airplane Flight Manual for the elevation of the destination airport and the wind conditions expected there at the time of landing), would allow a full stop landing at the intended destination airport within 80 percent of the effective length of each runway described below from a point 50 feet above the intersection of the obstruction clearance plane and the runway. For the purpose of determining the allowable landing weight at the destination airport, the following is assumed:

(i) The airplane is landed on the most favorable runway and in the most favorable direction, in still air.

(ii) The airplane is landed on the most suitable runway considering the probable wind velocity and direction and the ground handling characteristics of that airplane, and considering other conditions such as landing aids and terrain.

(3) The operation is authorized by management specifications.

(d) No program manager or other person may select an airport as an

alternate airport for a turbine engine powered large transport category airplane unless (based on the assumptions in paragraph (b) of this section) that airplane, at the weight expected at the time of arrival, can be brought to a full stop landing within 80 percent of the effective length of the runway from a point 50 feet above the intersection of the obstruction clearance plane and the runway.

(e) Unless, based on a showing of actual operating landing techniques on wet runways, a shorter landing distance (but never less than that required by paragraph (b) or (c) of this section) has been approved for a specific type and model airplane and included in the Airplane Flight Manual, no person may take off a turbojet airplane when the appropriate weather reports or forecasts, or any combination of them, indicate that the runways at the destination or alternate airport may be wet or slippery at the estimated time of arrival unless the effective runway length at the destination airport is at least 115 percent of the runway length required under paragraph (b) or (c) of this section.

**§ 91.1039 IFR takeoff, approach and landing minimums.**

(a) No pilot on a program aircraft operating a program flight may begin an instrument approach procedure to an airport unless—

(1) Either that airport or the alternate airport has a weather reporting facility operated by the U.S. National Weather Service, a source approved by the U.S. National Weather Service, or a source approved by the Administrator; and

(2) The latest weather report issued by the weather reporting facility includes a current local altimeter setting for the destination airport. If no local altimeter setting is available at the destination airport, the pilot must obtain the current local altimeter setting from a source provided by the facility designated on the approach chart for the destination airport.

(b) For flight planning purposes, if the destination airport does not have a weather reporting facility described in paragraph (a)(1) of this section, the pilot must designate as an alternate an airport that has a weather reporting facility meeting that criteria.

(c) The MDA or Decision Altitude and visibility landing minimums prescribed in part 97 of this chapter or in the program manager's management specifications are increased by 100 feet and 1/2 mile respectively, but not to exceed the ceiling and visibility minimums for that airport when used as an alternate airport, for each pilot in

command of a turbine-powered aircraft who has not served at least 100 hours as pilot in command in that type of aircraft.

(d) No person may take off an aircraft under IFR from an airport where weather conditions are at or above takeoff minimums but are below authorized IFR landing minimums unless there is an alternate airport within one hour's flying time (at normal cruising speed, in still air) of the airport of departure.

(e) Each pilot making an IFR takeoff or approach and landing at an airport must comply with applicable instrument approach procedures and take off and landing weather minimums prescribed by the authority having jurisdiction over the airport. In addition, no pilot may, at that airport take off when the visibility is less than 600 feet.

**§ 91.1041 Aircraft proving and validation tests.**

(a) No program manager may permit the operation of an aircraft, other than a turbojet aircraft, for which two pilots are required by the type certification requirements of this chapter for operations under VFR, if it has not previously proved such an aircraft in operations under this part in at least 25 hours of proving tests acceptable to the Administrator including—

(1) Five hours of night time, if night flights are to be authorized;

(2) Five instrument approach procedures under simulated or actual conditions, if IFR flights are to be authorized; and

(3) Entry into a representative number of en route airports as determined by the Administrator.

(b) No program manager may permit the operation of a turbojet airplane if it has not previously proved a turbojet airplane in operations under this part in at least 25 hours of proving tests acceptable to the Administrator including—

(1) Five hours of night time, if night flights are to be authorized;

(2) Five instrument approach procedures under simulated or actual conditions, if IFR flights are to be authorized; and

(3) Entry into a representative number of en route airports as determined by the Administrator.

(c) No program manager may carry passengers in an aircraft during proving tests, except those needed to make the tests and those designated by the Administrator to observe the tests. However, pilot flight training may be conducted during the proving tests.

(d) Validation testing is required to determine that a program manager is

capable of conducting operations safely and in compliance with applicable regulatory standards. Validation tests are required for the following authorizations:

(1) The addition of an aircraft for which two pilots are required for operations under VFR or a turbojet airplane, if that aircraft or an aircraft of the same make or similar design has not been previously proved or validated in operations under this part.

(2) Operations outside U.S. airspace.

(3) Class II navigation authorizations.

(4) Special performance or operational authorizations.

(e) Validation tests must be accomplished by test methods acceptable to the Administrator. Actual flights may not be required when an applicant can demonstrate competence and compliance with appropriate regulations without conducting a flight.

(f) Proving tests and validation tests may be conducted simultaneously when appropriate.

(g) The Administrator may authorize deviations from this section if the Administrator finds that special circumstances make full compliance with this section unnecessary.

**§ 91.1043 [Reserved]**

**§ 91.1045 Additional equipment requirements.**

No person may operate a program aircraft on a program flight unless the aircraft is equipped with the following—

(a) Airplanes having a passenger-seat configuration of more than 30 seats or a payload capacity of more than 7,500 pounds:

(1) A cockpit voice recorder as required by § 121.359 of this chapter as applicable to the aircraft specified in that section.

(2) A flight recorder as required by § 121.343 or § 121.344 of this chapter as applicable to the aircraft specified in that section.

(3) A terrain awareness and warning system as required by § 121.354 of this chapter as applicable to the aircraft specified in that section.

(4) A traffic alert and collision avoidance system as required by § 121.356 of this chapter as applicable to the aircraft specified in that section.

(5) Airborne weather radar as required by § 121.357 of this chapter, as applicable to the aircraft specified in that section.

(b) Airplanes having a passenger-seat configuration of 30 seats or fewer, excluding each crewmember, and a payload capacity of 7,500 pounds or less, and any rotorcraft (as applicable):

(1) A cockpit voice recorder as required by § 135.151 of this chapter as applicable to the aircraft specified in that section.

(2) A flight recorder as required by § 135.152 of this chapter as applicable to the aircraft specified in that section.

(3) A terrain awareness and warning system as required by § 135.154 of this chapter as applicable to the aircraft specified in that section.

(4) A traffic alert and collision avoidance system as required by § 135.180 of this chapter as applicable to the aircraft specified in that section.

(5) As applicable to the aircraft specified in that section, either:

(i) Airborne thunderstorm detection equipment as required by § 135.173 of this chapter; or

(ii) Airborne weather radar as required by § 135.175 of this chapter.

**§ 91.1047 Drug and alcohol misuse education program.**

(a) Each program manager must provide each direct employee performing flight crewmember, flight attendant, flight instructor, or aircraft maintenance duties with drug and alcohol misuse education.

(b) No program manager may use any contract employee to perform flight crewmember, flight attendant, flight instructor, or aircraft maintenance duties for the program manager unless that contract employee has been provided with drug and alcohol misuse education.

(c) Program managers must disclose to their owners and prospective owners the existence of a company drug and alcohol misuse testing program. If the program manager has implemented a company testing program, the program manager's disclosure must include the following:

(1) Information on the substances that they test for, for example, alcohol and a list of the drugs;

(2) The categories of employees tested, the types of tests, for example, pre-employment, random, reasonable cause/suspicion, post accident, return to duty and follow-up; and

(3) The degree to which the program manager's company testing program is comparable to the federally mandated drug and alcohol misuse prevention program required under part 121, appendices I and J, of this chapter, regarding the information in paragraphs (c)(1) and (c)(2) of this section.

(d) If a program aircraft is operated on a program flight into an airport at which no maintenance personnel are available that are subject to the requirements of paragraphs (a) or (b) of this section and emergency maintenance is required, the

program manager may use persons not meeting the requirements of paragraphs (a) or (b) of this section to provide such emergency maintenance under both of the following conditions:

(1) The program manager must notify the Drug Abatement Program Division, AAM-800, 800 Independence Avenue, SW., Washington, DC 20591 in writing within 10 days after being provided emergency maintenance in accordance with this paragraph. The program manager must retain copies of all such written notifications for two years.

(2) The aircraft must be reinspected by maintenance personnel who meet the requirements of paragraph (a) or (b) of this section when the aircraft is next at an airport where such maintenance personnel are available.

(e) For purposes of this section, emergency maintenance means maintenance that—

(1) Is not scheduled, and

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

(f) Notwithstanding paragraphs (a) and (b) of this section, drug and alcohol misuse education conducted under an FAA-approved drug and alcohol misuse prevention program may be used to satisfy these requirements.

#### **§ 91.1049 Personnel.**

(a) Each program manager and each fractional owner must use in program operations on program aircraft flight crews meeting § 91.1053 criteria and qualified under the appropriate regulations. The program manager must provide oversight of those crews.

(b) Each program manager must employ (either directly or by contract) an adequate number of pilots per program aircraft. Flight crew staffing must be determined based on the following factors, at a minimum:

(1) Number of program aircraft.

(2) Program manager flight, duty, and rest time considerations, and in all cases within the limits set forth in §§ 91.1057 through 91.1061.

(3) Vacations.

(4) Operational efficiencies.

(5) Training.

(6) Single pilot operations, if authorized by deviation under paragraph (d) of this section.

(c) Each program manager must publish pilot and flight attendant duty schedules sufficiently in advance to follow the flight, duty, and rest time limits in §§ 91.1057 through 91.1061 in program operations.

(d) Unless otherwise authorized by the Administrator, when any program aircraft is flown in program operations with passengers onboard, the crew must

consist of at least two qualified pilots employed or contracted by the program manager or the fractional owner.

(e) The program manager must ensure that trained and qualified scheduling or flight release personnel are on duty to schedule and release program aircraft during all hours that such aircraft are available for program operations.

#### **§ 91.1051 Pilot safety background check.**

Within 90 days of an individual beginning service as a pilot, the program manager must request the following information:

(a) FAA records pertaining to—

(1) Current pilot certificates and associated type ratings.

(2) Current medical certificates.

(3) Summaries of legal enforcement actions resulting in a finding by the Administrator of a violation.

(b) Records from all previous employers during the five years preceding the date of the employment application where the applicant worked as a pilot. If any of these firms are in bankruptcy, the records must be requested from the trustees in bankruptcy for those employees. If the previous employer is no longer in business, a documented good faith effort must be made to obtain the records. Records from previous employers must include, as applicable—

(1) Crew member records.

(2) Drug testing—collection, testing, and rehabilitation records pertaining to the individual.

(3) Alcohol misuse prevention program records pertaining to the individual.

(4) The applicant's individual record that includes certifications, ratings, aeronautical experience, effective date and class of the medical certificate.

#### **§ 91.1053 Crewmember experience.**

(a) No program manager or owner may use any person, nor may any person serve, as a pilot in command or second in command of a program aircraft, or as a flight attendant on a program aircraft, in program operations under this subpart unless that person has met the applicable requirements of part 61 of this chapter and has the following experience and ratings:

(1) Total flight time for all pilots:

(i) Pilot in command—A minimum of 1,500 hours.

(ii) Second in command—A minimum of 500 hours.

(2) For multi-engine turbine-powered fixed-wing and powered-lift aircraft, the following FAA certification and ratings requirements:

(i) Pilot in command—Airline transport pilot and applicable type ratings.

(ii) Second in command—Commercial pilot and instrument ratings.

(iii) Flight attendant (if required or used)—Appropriately trained personnel.

(3) For all other aircraft, the following FAA certification and rating requirements:

(i) Pilot in command—Commercial pilot and instrument ratings.

(ii) Second in command—Commercial pilot and instrument ratings.

(iii) Flight attendant (if required or used)—Appropriately trained personnel.

(b) The Administrator may authorize deviations from paragraph (a)(1) of this section if the Flight Standards District Office that issued the program manager's management specifications finds that the crewmember has comparable experience, and can effectively perform the functions associated with the position in accordance with the requirements of this chapter. Grants of deviation under this paragraph may be granted after consideration of the size and scope of the operation, the qualifications of the intended personnel and the circumstances set forth in § 91.1055(b)(1) through (3). The Administrator may, at any time, terminate any grant of deviation authority issued under this paragraph.

#### **§ 91.1055 Pilot operating limitations and pairing requirement.**

(a) If the second in command of a fixed-wing program aircraft has fewer than 100 hours of flight time as second in command flying in the aircraft make and model and, if a type rating is required, in the type aircraft being flown, and the pilot in command is not an appropriately qualified check pilot, the pilot in command shall make all takeoffs and landings in any of the following situations:

(1) Landings at the destination airport when a Destination Airport Analysis is required by § 91.1037(c); and

(2) In any of the following conditions:

(i) The prevailing visibility for the airport is at or below 3/4 mile.

(ii) The runway visual range for the runway to be used is at or below 4,000 feet.

(iii) The runway to be used has water, snow, slush, ice or similar contamination that may adversely affect aircraft performance.

(iv) The braking action on the runway to be used is reported to be less than "good."

(v) The crosswind component for the runway to be used is in excess of 15 knots.

(vi) Windshear is reported in the vicinity of the airport.

(vii) Any other condition in which the pilot in command determines it to be

prudent to exercise the pilot in command's authority.

(b) No program manager may release a program flight under this subpart unless, for that aircraft make or model and, if a type rating is required, for that type aircraft, either the pilot in command or the second in command has at least 75 hours of flight time, either as pilot in command or second in command. The Administrator may, upon application by the program manager, authorize deviations from the requirements of this paragraph by an appropriate amendment to the management specifications in any of the following circumstances:

(1) A newly authorized program manager does not employ any pilots who meet the minimum requirements of this paragraph.

(2) An existing program manager adds to its fleet a new category and class aircraft not used before in its operation.

(3) An existing program manager establishes a new base to which it assigns pilots who will be required to become qualified on the aircraft operated from that base.

(c) No person may be assigned in the capacity of pilot in command in a program operation to more than two aircraft types that require a separate type rating.

**§ 91.1057 Flight, duty and rest time requirements: All crewmembers.**

(a) For purposes of this subpart—  
*Augmented flight crew* means at least three pilots.

*Calendar day* means the period of elapsed time, using Coordinated Universal Time or local time that begins at midnight and ends 24 hours later at the next midnight.

*Duty period* means the period of elapsed time between reporting for an assignment involving flight time and release from that assignment by the program manager. All time between these two points is part of the duty period, even if flight time is interrupted by nonflight-related duties. The time is calculated using either Coordinated Universal Time or local time to reflect the total elapsed time.

*Extension of flight time* means an increase in the flight time because of circumstances beyond the control of the program manager or flight crewmember (such as adverse weather) that are not known at the time of departure and that prevent the flightcrew from reaching the destination within the planned flight time.

*Flight attendant* means an individual, other than a flight crewmember, who is assigned by the program manager, in accordance with the required minimum

crew complement under the program manager's management specifications or in addition to that minimum complement, to duty in an aircraft during flight time and whose duties include but are not necessarily limited to cabin-safety-related responsibilities.

*Multi-time zone flight* means an easterly or westerly flight or multiple flights in one direction in the same duty period that results in a time zone difference of 5 or more hours and is conducted in a geographic area that is south of 60 degrees north latitude and north of 60 degrees south latitude.

*Reserve status* means that status in which a flight crewmember, by arrangement with the program manager: Holds himself or herself fit to fly to the extent that this is within the control of the flight crewmember; remains within a reasonable response time of the aircraft as agreed between the flight crewmember and the program manager; and maintains a ready means whereby the flight crewmember may be contacted by the program manager. Reserve status is not part of any duty period or rest period.

*Rest period* means a period of time required pursuant to this subpart that is free of all responsibility for work or duty prior to the commencement of, or following completion of, a duty period, and during which the flight crewmember or flight attendant cannot be required to receive contact from the program manager. A rest period does not include any time during which the program manager imposes on a flight crewmember or flight attendant any duty or restraint, including any actual work or present responsibility for work should the occasion arise.

*Standby* means that portion of a duty period during which a flight crewmember is subject to the control of the program manager and holds himself or herself in a condition of readiness to undertake a flight. Standby is not part of any rest period.

(b) A program manager may assign a crewmember and a crewmember may accept an assignment for flight time only when the applicable requirements of this section and §§ 91.1059–91.1062 are met.

(c) No program manager may assign any crewmember to any duty during any required rest period.

(d) Time spent in transportation, not local in character, that a program manager requires of a crewmember and provides to transport the crewmember to an airport at which he or she is to serve on a flight as a crewmember, or from an airport at which he or she was relieved from duty to return to his or her

home station, is not considered part of a rest period.

(e) A flight crewmember may continue a flight assignment if the flight to which he or she is assigned would normally terminate within the flight time limitations, but because of circumstances beyond the control of the program manager or flight crewmember (such as adverse weather conditions), is not at the time of departure expected to reach its destination within the planned flight time. The extension of flight time under this paragraph may not exceed the maximum time limits set forth in § 91.1059.

(f) Each flight assignment must provide for at least 10 consecutive hours of rest during the 24-hour period that precedes the completion time of the assignment.

(g) The program manager must provide each crewmember at least 13 rest periods of at least 24 consecutive hours each in each calendar quarter.

(h) A flight crewmember may decline a flight assignment if, in the flight crewmember's determination, to do so would not be consistent with the standard of safe operation required under this subpart, this part, and applicable provisions of this title.

(i) Any rest period required by this subpart may occur concurrently with any other rest period.

(j) If authorized by the Administrator, a program manager may use the applicable unscheduled flight time limitations, duty period limitations, and rest requirements of part 121 or part 135 of this chapter instead of the flight time limitations, duty period limitations, and rest requirements of this subpart.

**§ 91.1059 Flight time limitations and rest requirements: One or two pilot crews.**

(a) No program manager may assign any flight crewmember, and no flight crewmember may accept an assignment, for flight time as a member of a one- or two-pilot crew if that crewmember's total flight time in all commercial flying will exceed—

- (1) 500 hours in any calendar quarter;
- (2) 800 hours in any two consecutive calendar quarters;
- (3) 1,400 hours in any calendar year.

(b) Except as provided in paragraph (c) of this section, during any 24 consecutive hours the total flight time of the assigned flight, when added to any commercial flying by that flight crewmember, may not exceed—

- (1) 8 hours for a flight crew consisting of one pilot; or
- (2) 10 hours for a flight crew consisting of two pilots qualified under this subpart for the operation being conducted.

(c) No program manager may assign any flight crewmember, and no flight crewmember may accept an assignment, if that crewmember's flight time or duty period will exceed, or rest time will be less than—		
	Normal duty	Extension of flight time
(1) Minimum Rest Immediately Before Duty .....	10 Hours .....	10 Hours.
(2) Duty Period .....	Up to 14 Hours .....	Up to 14 Hours.
(3) Flight Time For 1 Pilot .....	Up to 8 Hours .....	Exceeding 8 Hours up to 9 Hours.
(4) Flight Time For 2 Pilots .....	Up to 10 Hours .....	Exceeding 10 Hours up to 12 Hours.
(5) Minimum After Duty Rest .....	10 Hours .....	12 Hours.
(6) Minimum After Duty Rest Period for Multi-Time Zone Flights .....	14 Hours .....	18 Hours.

**§ 91.1061 Augmented flight crews.**

(a) No program manager may assign any flight crewmember, and no flight crewmember may accept an assignment, for flight time as a member of an augmented crew if that crewmember's total flight time in all commercial flying will exceed—

- (1) 500 hours in any calendar quarter;
- (2) 800 hours in any two consecutive calendar quarters;
- (3) 1,400 hours in any calendar year.

(b) No program manager may assign any pilot to an augmented crew, unless the program manager ensures:

- (1) Adequate sleeping facilities are installed on the aircraft for the pilots.

(2) No more than 8 hours of flight deck duty is accrued in any 24 consecutive hours.

(3) For a three-pilot crew, the crew must consist of at least the following:

- (i) A pilot in command (PIC) who meets the applicable flight crewmember requirements of this subpart and § 61.57 of this chapter.
- (ii) A PIC qualified pilot who meets the applicable flight crewmember requirements of this subpart and § 61.57(c) and (d) of this chapter.
- (iii) A second in command (SIC) who meets the SIC qualifications of this subpart. For flight under IFR, that person must also meet the recent

instrument experience requirements of part 61 of this chapter.

(4) For a four-pilot crew, at least three pilots who meet the conditions of paragraph (b)(3) of this section, plus a fourth pilot who meets the SIC qualifications of this subpart. For flight under IFR, that person must also meet the recent instrument experience requirements of part 61 of this chapter.

(c) No program manager may assign any flight crewmember, and no flight crewmember may accept an assignment, if that crewmember's flight time or duty period will exceed, or rest time will be less than—

	3-Pilot crew	4-Pilot crew
(1) Minimum Rest Immediately Before Duty .....	10 Hours .....	10 Hours
(2) Duty Period .....	Up to 16 Hours .....	Up to 18 Hours
(3) Flight Time .....	Up to 12 Hours .....	Up to 16 Hours
(4) Minimum After Duty Rest .....	12 Hours .....	18 Hours
(5) Minimum After Duty Rest Period for Multi-Time Zone Flights .....	18 hours .....	24 hours

**§ 91.1062 Duty periods and rest requirements: Flight attendants.**

(a) Except as provided in paragraph (b) of this section, a program manager may assign a duty period to a flight attendant only when the assignment meets the applicable duty period limitations and rest requirements of this paragraph.

(1) Except as provided in paragraphs (a)(4), (a)(5), and (a)(6) of this section, no program manager may assign a flight attendant to a scheduled duty period of more than 14 hours.

(2) Except as provided in paragraph (a)(3) of this section, a flight attendant scheduled to a duty period of 14 hours or less as provided under paragraph (a)(1) of this section must be given a scheduled rest period of at least 9 consecutive hours. This rest period must occur between the completion of the scheduled duty period and the commencement of the subsequent duty period.

(3) The rest period required under paragraph (a)(2) of this section may be

scheduled or reduced to 8 consecutive hours if the flight attendant is provided a subsequent rest period of at least 10 consecutive hours; this subsequent rest period must be scheduled to begin no later than 24 hours after the beginning of the reduced rest period and must occur between the completion of the scheduled duty period and the commencement of the subsequent duty period.

(4) A program manager may assign a flight attendant to a scheduled duty period of more than 14 hours, but no more than 16 hours, if the program manager has assigned to the flight or flights in that duty period at least one flight attendant in addition to the minimum flight attendant complement required for the flight or flights in that duty period under the program manager's management specifications.

(5) A program manager may assign a flight attendant to a scheduled duty period of more than 16 hours, but no more than 18 hours, if the program manager has assigned to the flight or

flights in that duty period at least two flight attendants in addition to the minimum flight attendant complement required for the flight or flights in that duty period under the program manager's management specifications.

(6) A program manager may assign a flight attendant to a scheduled duty period of more than 18 hours, but no more than 20 hours, if the scheduled duty period includes one or more flights that land or take off outside the 48 contiguous states and the District of Columbia, and if the program manager has assigned to the flight or flights in that duty period at least three flight attendants in addition to the minimum flight attendant complement required for the flight or flights in that duty period under the program manager's management specifications.

(7) Except as provided in paragraph (a)(8) of this section, a flight attendant scheduled to a duty period of more than 14 hours but no more than 20 hours, as provided in paragraphs (a)(4), (a)(5), and (a)(6) of this section, must be given a

scheduled rest period of at least 12 consecutive hours. This rest period must occur between the completion of the scheduled duty period and the commencement of the subsequent duty period.

(8) The rest period required under paragraph (a)(7) of this section may be scheduled or reduced to 10 consecutive hours if the flight attendant is provided a subsequent rest period of at least 14 consecutive hours; this subsequent rest period must be scheduled to begin no later than 24 hours after the beginning of the reduced rest period and must occur between the completion of the scheduled duty period and the commencement of the subsequent duty period.

(9) Notwithstanding paragraphs (a)(4), (a)(5), and (a)(6) of this section, if a program manager elects to reduce the rest period to 10 hours as authorized by paragraph (a)(8) of this section, the program manager may not schedule a flight attendant for a duty period of more than 14 hours during the 24-hour period commencing after the beginning of the reduced rest period.

(b) Notwithstanding paragraph (a) of this section, a program manager may apply the flight crewmember flight time and duty limitations and rest requirements of this part to flight attendants for all operations conducted under this part provided that the program manager establishes written procedures that—

(1) Apply to all flight attendants used in the program manager's operation;

(2) Include the flight crewmember rest and duty requirements of §§ 91.1057, 91.1059, and 91.1061, as appropriate to the operation being conducted, except that rest facilities on board the aircraft are not required;

(3) Include provisions to add one flight attendant to the minimum flight attendant complement for each flight crewmember who is in excess of the minimum number required in the aircraft type certificate data sheet and who is assigned to the aircraft under the provisions of § 91.1061; and

(4) Are approved by the Administrator and described or referenced in the program manager's management specifications.

**§ 91.1063 Testing and training: Applicability and terms used.**

(a) Sections 91.1065 through 91.1107:

(1) Prescribe the tests and checks required for pilots and flight attendant crewmembers and for the approval of check pilots in operations under this subpart;

(2) Prescribe the requirements for establishing and maintaining an

approved training program for crewmembers, check pilots and instructors, and other operations personnel employed or used by the program manager in program operations;

(3) Prescribe the requirements for the qualification, approval and use of aircraft simulators and flight training devices in the conduct of an approved training program; and

(4) Permits training center personnel authorized under part 142 of this chapter who meet the requirements of § 91.1075 to conduct training, testing and checking under contract or other arrangements to those persons subject to the requirements of this subpart.

(b) If authorized by the Administrator, a program manager may comply with the applicable training and testing sections of subparts N and O of part 121 of this chapter instead of §§ 91.1065 through 91.1107, except for the operating experience requirements of § 121.434 of this chapter.

(c) If authorized by the Administrator, a program manager may comply with the applicable training and testing sections of subparts G and H of part 135 of this chapter instead of §§ 91.1065 through 91.1107, except for the operating experience requirements of § 135.244 of this chapter.

(d) For the purposes of this subpart, the following terms and definitions apply:

(1) *Initial training.* The training required for crewmembers who have not qualified and served in the same capacity on an aircraft.

(2) *Transition training.* The training required for crewmembers who have qualified and served in the same capacity on another aircraft.

(3) *Upgrade training.* The training required for crewmembers who have qualified and served as second in command on a particular aircraft type, before they serve as pilot in command on that aircraft.

(4) *Differences training.* The training required for crewmembers who have qualified and served on a particular type aircraft, when the Administrator finds differences training is necessary before a crewmember serves in the same capacity on a particular variation of that aircraft.

(5) *Recurrent training.* The training required for crewmembers to remain adequately trained and currently proficient for each aircraft crewmember position, and type of operation in which the crewmember serves.

(6) *In flight.* The maneuvers, procedures, or functions that will be conducted in the aircraft.

(7) *Training center.* An organization governed by the applicable requirements of part 142 of this chapter that conducts training, testing, and checking under contract or other arrangement to program managers subject to the requirements of this subpart.

(8) *Recertification training.* The training required for crewmembers previously trained and qualified, but who have become unqualified because of not having met within the required period any of the following:

(i) Recurrent crewmember training requirements of § 91.1107.

(ii) Instrument proficiency check requirements of § 91.1069.

(iii) Testing requirements of § 91.1065.

(iv) Recurrent flight attendant testing requirements of § 91.1067.

**§ 91.1065 Initial and recurrent pilot testing requirements.**

(a) No program manager or owner may use a pilot, nor may any person serve as a pilot, unless, since the beginning of the 12th month before that service, that pilot has passed either a written or oral test (or a combination), given by the Administrator or an authorized check pilot, on that pilot's knowledge in the following areas—

(1) The appropriate provisions of parts 61 and 91 of this chapter and the management specifications and the operating manual of the program manager;

(2) For each type of aircraft to be flown by the pilot, the aircraft powerplant, major components and systems, major appliances, performance and operating limitations, standard and emergency operating procedures, and the contents of the accepted operating manual or equivalent, as applicable;

(3) For each type of aircraft to be flown by the pilot, the method of determining compliance with weight and balance limitations for takeoff, landing and en route operations;

(4) Navigation and use of air navigation aids appropriate to the operation or pilot authorization, including, when applicable, instrument approach facilities and procedures;

(5) Air traffic control procedures, including IFR procedures when applicable;

(6) Meteorology in general, including the principles of frontal systems, icing, fog, thunderstorms, and windshear, and, if appropriate for the operation of the program manager, high altitude weather;

(7) Procedures for—

(i) Recognizing and avoiding severe weather situations;

(ii) Escaping from severe weather situations, in case of inadvertent

encounters, including low-altitude windshear (except that rotorcraft aircraft pilots are not required to be tested on escaping from low-altitude windshear); and

(iii) Operating in or near thunderstorms (including best penetration altitudes), turbulent air (including clear air turbulence), icing, hail, and other potentially hazardous meteorological conditions; and

(8) New equipment, procedures, or techniques, as appropriate.

(b) No program manager or owner may use a pilot, nor may any person serve as a pilot, in any aircraft unless, since the beginning of the 12th month before that service, that pilot has passed a competency check given by the Administrator or an authorized check pilot in that class of aircraft, if single-engine aircraft other than turbojet, or that type of aircraft, if rotorcraft, multiengine aircraft, or turbojet airplane, to determine the pilot's competence in practical skills and techniques in that aircraft or class of aircraft. The extent of the competency check will be determined by the Administrator or authorized check pilot conducting the competency check. The competency check may include any of the maneuvers and procedures currently required for the original issuance of the particular pilot certificate required for the operations authorized and appropriate to the category, class and type of aircraft involved. For the purposes of this paragraph, type, as to an airplane, means any one of a group of airplanes determined by the Administrator to have a similar means of propulsion, the same manufacturer, and no significantly different handling or flight characteristics. For the purposes of this paragraph, type, as to a rotorcraft, means a basic make and model.

(c) The instrument proficiency check required by § 91.1069 may be substituted for the competency check required by this section for the type of aircraft used in the check.

(d) For the purpose of this subpart, competent performance of a procedure or maneuver by a person to be used as a pilot requires that the pilot be the obvious master of the aircraft, with the successful outcome of the maneuver never in doubt.

(e) The Administrator or authorized check pilot certifies the competency of each pilot who passes the knowledge or flight check in the program manager's pilot records.

(f) All or portions of a required competency check may be given in an aircraft simulator or other appropriate

training device, if approved by the Administrator.

**§ 91.1067 Initial and recurrent flight attendant crewmember testing requirements.**

No program manager or owner may use a flight attendant crewmember, nor may any person serve as a flight attendant crewmember unless, since the beginning of the 12th month before that service, the program manager has determined by appropriate initial and recurrent testing that the person is knowledgeable and competent in the following areas as appropriate to assigned duties and responsibilities—

(a) Authority of the pilot in command;

(b) Passenger handling, including procedures to be followed in handling deranged persons or other persons whose conduct might jeopardize safety;

(c) Crewmember assignments, functions, and responsibilities during ditching and evacuation of persons who may need the assistance of another person to move expeditiously to an exit in an emergency;

(d) Briefing of passengers;

(e) Location and operation of portable fire extinguishers and other items of emergency equipment;

(f) Proper use of cabin equipment and controls;

(g) Location and operation of passenger oxygen equipment;

(h) Location and operation of all normal and emergency exits, including evacuation slides and escape ropes; and

(i) Seating of persons who may need assistance of another person to move rapidly to an exit in an emergency as prescribed by the program manager's operations manual.

**§ 91.1069 Flight crew: Instrument proficiency check requirements.**

(a) No program manager or owner may use a pilot, nor may any person serve, as a pilot in command of an aircraft under IFR unless, since the beginning of the 6th month before that service, that pilot has passed an instrument proficiency check under this section administered by the Administrator or an authorized check pilot.

(b) No program manager or owner may use a pilot, nor may any person serve, as a second command pilot of an aircraft under IFR unless, since the beginning of the 12th month before that service, that pilot has passed an instrument proficiency check under this section administered by the Administrator or an authorized check pilot.

(c) No pilot may use any type of precision instrument approach procedure under IFR unless, since the

beginning of the 6th month before that use, the pilot satisfactorily demonstrated that type of approach procedure. No pilot may use any type of nonprecision approach procedure under IFR unless, since the beginning of the 6th month before that use, the pilot has satisfactorily demonstrated either that type of approach procedure or any other two different types of nonprecision approach procedures. The instrument approach procedure or procedures must include at least one straight-in approach, one circling approach, and one missed approach. Each type of approach procedure demonstrated must be conducted to published minimums for that procedure.

(d) The instrument proficiency checks required by paragraphs (a) and (b) of this section consists of either an oral or written equipment test (or a combination) and a flight check under simulated or actual IFR conditions. The equipment test includes questions on emergency procedures, engine operation, fuel and lubrication systems, power settings, stall speeds, best engine-out speed, propeller and supercharger operations, and hydraulic, mechanical, and electrical systems, as appropriate. The flight check includes navigation by instruments, recovery from simulated emergencies, and standard instrument approaches involving navigational facilities which that pilot is to be authorized to use.

(e) Each pilot taking the instrument proficiency check must show that standard of competence required by § 91.1065(d).

(1) The instrument proficiency check must—

(i) For a pilot in command of an aircraft requiring that the PIC hold an airline transport pilot certificate, include the procedures and maneuvers for an airline transport pilot certificate in the particular type of aircraft, if appropriate; and

(ii) For a pilot in command of a rotorcraft or a second in command of any aircraft requiring that the SIC hold a commercial pilot certificate include the procedures and maneuvers for a commercial pilot certificate with an instrument rating and, if required, for the appropriate type rating.

(2) The instrument proficiency check must be given by an authorized check pilot or by the Administrator.

(f) If the pilot is assigned to pilot only one type of aircraft, that pilot must take the instrument proficiency check required by paragraph (a) of this section in that type of aircraft.

(g) If the pilot in command is assigned to pilot more than one type of aircraft, that pilot must take the instrument

proficiency check required by paragraph (a) of this section in each type of aircraft to which that pilot is assigned, in rotation, but not more than one flight check during each period described in paragraph (a) of this section.

(h) If the pilot in command is assigned to pilot both single-engine and multiengine aircraft, that pilot must initially take the instrument proficiency check required by paragraph (a) of this section in a multiengine aircraft, and each succeeding check alternately in single-engine and multiengine aircraft, but not more than one flight check during each period described in paragraph (a) of this section.

(i) All or portions of a required flight check may be given in an aircraft simulator or other appropriate training device, if approved by the Administrator.

**§ 91.1071 Crewmember: Tests and checks, grace provisions, training to accepted standards.**

(a) If a crewmember who is required to take a test or a flight check under this subpart, completes the test or flight check in the month before or after the month in which it is required, that crewmember is considered to have completed the test or check in the month in which it is required.

(b) If a pilot being checked under this subpart fails any of the required maneuvers, the person giving the check may give additional training to the pilot during the course of the check. In addition to repeating the maneuvers failed, the person giving the check may require the pilot being checked to repeat any other maneuvers that are necessary to determine the pilot's proficiency. If the pilot being checked is unable to demonstrate satisfactory performance to the person conducting the check, the program manager may not use the pilot, nor may the pilot serve, as a flight crewmember in operations under this subpart until the pilot has satisfactorily completed the check. If a pilot who demonstrates unsatisfactory performance is employed as a pilot for a certificate holder operating under part 121, 125, or 135 of this chapter, he or she must notify that certificate holder of the unsatisfactory performance.

**§ 91.1073 Training program: General.**

(a) Each program manager must have a training program and must:

(1) Establish, obtain the appropriate initial and final approval of, and provide a training program that meets this subpart and that ensures that each crewmember, including each flight attendant if the program manager uses a flight attendant crewmember, flight

instructor, check pilot, and each person assigned duties for the carriage and handling of hazardous materials (as defined in 49 CFR 171.8) is adequately trained to perform these assigned duties.

(2) Provide adequate ground and flight training facilities and properly qualified ground instructors for the training required by this subpart.

(3) Provide and keep current for each aircraft type used and, if applicable, the particular variations within the aircraft type, appropriate training material, examinations, forms, instructions, and procedures for use in conducting the training and checks required by this subpart.

(4) Provide enough flight instructors, check pilots, and simulator instructors to conduct required flight training and flight checks, and simulator training courses allowed under this subpart.

(b) Whenever a crewmember who is required to take recurrent training under this subpart completes the training in the month before, or the month after, the month in which that training is required, the crewmember is considered to have completed it in the month in which it was required.

(c) Each instructor, supervisor, or check pilot who is responsible for a particular ground training subject, segment of flight training, course of training, flight check, or competence check under this subpart must certify as to the proficiency and knowledge of the crewmember, flight instructor, or check pilot concerned upon completion of that training or check. That certification must be made a part of the crewmember's record. When the certification required by this paragraph is made by an entry in a computerized recordkeeping system, the certifying instructor, supervisor, or check pilot, must be identified with that entry. However, the signature of the certifying instructor, supervisor, or check pilot is not required for computerized entries.

(d) Training subjects that apply to more than one aircraft or crewmember position and that have been satisfactorily completed during previous training while employed by the program manager for another aircraft or another crewmember position, need not be repeated during subsequent training other than recurrent training.

(e) Aircraft simulators and other training devices may be used in the program manager's training program if approved by the Administrator.

(f) Each program manager is responsible for establishing safe and efficient crew management practices for all phases of flight in program operations including crew resource management training for all

crewmembers used in program operations.

(g) If an aircraft simulator has been approved by the Administrator for use in the program manager's training program, the program manager must ensure that each pilot annually completes at least one flight training session in an approved simulator for at least one program aircraft. The training session may be the flight training portion of any of the pilot training or check requirements of this subpart, including the initial, transition, upgrade, requalification, differences, or recurrent training, or the accomplishment of a competency check or instrument proficiency check. If there is no approved simulator for that aircraft type in operation, then all flight training and checking must be accomplished in the aircraft.

**§ 91.1075 Training program: Special rules.**

Other than the program manager, only the following are eligible under this subpart to conduct training, testing, and checking under contract or other arrangement to those persons subject to the requirements of this subpart.

(a) Another program manager operating under this subpart:

(b) A training center certificated under part 142 of this chapter to conduct training, testing, and checking required by this subpart if the training center—

(1) Holds applicable training specifications issued under part 142 of this chapter;

(2) Has facilities, training equipment, and courseware meeting the applicable requirements of part 142 of this chapter;

(3) Has approved curriculums, curriculum segments, and portions of curriculum segments applicable for use in training courses required by this subpart; and

(4) Has sufficient instructors and check pilots qualified under the applicable requirements of §§ 91.1089 through 91.1095 to conduct training, testing, and checking to persons subject to the requirements of this subpart.

(c) A part 119 certificate holder operating under part 121 or part 135 of this chapter.

(d) As authorized by the Administrator, a training center that is not certificated under part 142 of this chapter.

**§ 91.1077 Training program and revision: Initial and final approval.**

(a) To obtain initial and final approval of a training program, or a revision to an approved training program, each program manager must submit to the Administrator—

(1) An outline of the proposed or revised curriculum, that provides enough information for a preliminary evaluation of the proposed training program or revision; and

(2) Additional relevant information that may be requested by the Administrator.

(b) If the proposed training program or revision complies with this subpart, the Administrator grants initial approval in writing after which the program manager may conduct the training under that program. The Administrator then evaluates the effectiveness of the training program and advises the program manager of deficiencies, if any, that must be corrected.

(c) The Administrator grants final approval of the proposed training program or revision if the program manager shows that the training conducted under the initial approval in paragraph (b) of this section ensures that each person who successfully completes the training is adequately trained to perform that person's assigned duties.

(d) Whenever the Administrator finds that revisions are necessary for the continued adequacy of a training program that has been granted final approval, the program manager must, after notification by the Administrator, make any changes in the program that are found necessary by the Administrator. Within 30 days after the program manager receives the notice, it may file a petition to reconsider the notice with the Administrator. The filing of a petition to reconsider stays the notice pending a decision by the Administrator. However, if the Administrator finds that there is an emergency that requires immediate action in the interest of safety, the Administrator may, upon a statement of the reasons, require a change effective without stay.

#### **§ 91.1079 Training program: Curriculum.**

(a) Each program manager must prepare and keep current a written training program curriculum for each type of aircraft for each crewmember required for that type aircraft. The curriculum must include ground and flight training required by this subpart.

(b) Each training program curriculum must include the following:

(1) A list of principal ground training subjects, including emergency training subjects, that are provided.

(2) A list of all the training devices, mock-ups, systems trainers, procedures trainers, or other training aids that the program manager will use.

(3) Detailed descriptions or pictorial displays of the approved normal, abnormal, and emergency maneuvers,

procedures and functions that will be performed during each flight training phase or flight check, indicating those maneuvers, procedures and functions that are to be performed during the inflight portions of flight training and flight checks.

#### **§ 91.1081 Crewmember training requirements.**

(a) Each program manager must include in its training program the following initial and transition ground training as appropriate to the particular assignment of the crewmember:

(1) Basic indoctrination ground training for newly hired crewmembers including instruction in at least the—

(i) Duties and responsibilities of crewmembers as applicable;

(ii) Appropriate provisions of this chapter;

(iii) Contents of the program manager's management specifications (not required for flight attendants); and

(iv) Appropriate portions of the program manager's operating manual.

(2) The initial and transition ground training in §§ 91.1101 and 91.1105, as applicable.

(3) Emergency training in § 91.1083.

(b) Each training program must provide the initial and transition flight training in § 91.1103, as applicable.

(c) Each training program must provide recurrent ground and flight training as provided in § 91.1107.

(d) Upgrade training in §§ 91.1101 and 91.1103 for a particular type aircraft may be included in the training program for crewmembers who have qualified and served as second in command on that aircraft.

(e) In addition to initial, transition, upgrade and recurrent training, each training program must provide ground and flight training, instruction, and practice necessary to ensure that each crewmember—

(1) Remains adequately trained and currently proficient for each aircraft, crewmember position, and type of operation in which the crewmember serves; and

(2) Qualifies in new equipment, facilities, procedures, and techniques, including modifications to aircraft.

#### **§ 91.1083 Crewmember emergency training.**

(a) Each training program must provide emergency training under this section for each aircraft type, model, and configuration, each crewmember, and each kind of operation conducted, as appropriate for each crewmember and the program manager.

(b) Emergency training must provide the following:

(1) Instruction in emergency assignments and procedures, including coordination among crewmembers.

(2) Individual instruction in the location, function, and operation of emergency equipment including—

(i) Equipment used in ditching and evacuation;

(ii) First aid equipment and its proper use; and

(iii) Portable fire extinguishers, with emphasis on the type of extinguisher to be used on different classes of fires.

(3) Instruction in the handling of emergency situations including—

(i) Rapid decompression;

(ii) Fire in flight or on the surface and smoke control procedures with emphasis on electrical equipment and related circuit breakers found in cabin areas;

(iii) Ditching and evacuation;

(iv) Illness, injury, or other abnormal situations involving passengers or crewmembers; and

(v) Hijacking and other unusual situations.

(4) Review and discussion of previous aircraft accidents and incidents involving actual emergency situations.

(c) Each crewmember must perform at least the following emergency drills, using the proper emergency equipment and procedures, unless the Administrator finds that, for a particular drill, the crewmember can be adequately trained by demonstration:

(1) Ditching, if applicable.

(2) Emergency evacuation.

(3) Fire extinguishing and smoke control.

(4) Operation and use of emergency exits, including deployment and use of evacuation slides, if applicable.

(5) Use of crew and passenger oxygen.

(6) Removal of life rafts from the aircraft, inflation of the life rafts, use of lifelines, and boarding of passengers and crew, if applicable.

(7) Donning and inflation of life vests and the use of other individual flotation devices, if applicable.

(d) Crewmembers who serve in operations above 25,000 feet must receive instruction in the following:

(1) Respiration.

(2) Hypoxia.

(3) Duration of consciousness without supplemental oxygen at altitude.

(4) Gas expansion.

(5) Gas bubble formation.

(6) Physical phenomena and incidents of decompression.

#### **§ 91.1085 Hazardous materials recognition training.**

No program manager may use any person to perform, and no person may perform, any assigned duties and

responsibilities for the handling or carriage of hazardous materials (as defined in 49 CFR 171.8), unless that person has received training in the recognition of hazardous materials.

**§ 91.1087 Approval of aircraft simulators and other training devices.**

(a) Training courses using aircraft simulators and other training devices may be included in the program manager's training program if approved by the Administrator.

(b) Each aircraft simulator and other training device that is used in a training course or in checks required under this subpart must meet the following requirements:

(1) It must be specifically approved for—

(i) The program manager; and  
(ii) The particular maneuver, procedure, or crewmember function involved.

(2) It must maintain the performance, functional, and other characteristics that are required for approval.

(3) Additionally, for aircraft simulators, it must be—

(i) Approved for the type aircraft and, if applicable, the particular variation within type for which the training or check is being conducted; and

(ii) Modified to conform with any modification to the aircraft being simulated that changes the performance, functional, or other characteristics required for approval.

(c) A particular aircraft simulator or other training device may be used by more than one program manager.

(d) In granting initial and final approval of training programs or revisions to them, the Administrator considers the training devices, methods, and procedures listed in the program manager's curriculum under § 91.1079.

**§ 91.1089 Qualifications: Check pilots (aircraft) and check pilots (simulator).**

(a) For the purposes of this section and § 91.1093:

(1) A check pilot (aircraft) is a person who is qualified to conduct flight checks in an aircraft, in a flight simulator, or in a flight training device for a particular type aircraft.

(2) A check pilot (simulator) is a person who is qualified to conduct flight checks, but only in a flight simulator, in a flight training device, or both, for a particular type aircraft.

(3) Check pilots (aircraft) and check pilots (simulator) are those check pilots who perform the functions described in § 91.1073(a)(4) and (c).

(b) No program manager may use a person, nor may any person serve as a check pilot (aircraft) in a training

program established under this subpart unless, with respect to the aircraft type involved, that person—

(1) Holds the pilot certificates and ratings required to serve as a pilot in command in operations under this subpart;

(2) Has satisfactorily completed the training phases for the aircraft, including recurrent training, that are required to serve as a pilot in command in operations under this subpart;

(3) Has satisfactorily completed the proficiency or competency checks that are required to serve as a pilot in command in operations under this subpart;

(4) Has satisfactorily completed the applicable training requirements of § 91.1093;

(5) Holds at least a Class III medical certificate unless serving as a required crewmember, in which case holds a Class I or Class II medical certificate as appropriate; and

(6) Has been approved by the Administrator for the check pilot duties involved.

(c) No program manager may use a person, nor may any person serve as a check pilot (simulator) in a training program established under this subpart unless, with respect to the aircraft type involved, that person meets the provisions of paragraph (b) of this section, or—

(1) Holds the applicable pilot certificates and ratings, except medical certificate, required to serve as a pilot in command in operations under this subpart;

(2) Has satisfactorily completed the appropriate training phases for the aircraft, including recurrent training, that are required to serve as a pilot in command in operations under this subpart;

(3) Has satisfactorily completed the appropriate proficiency or competency checks that are required to serve as a pilot in command in operations under this subpart;

(4) Has satisfactorily completed the applicable training requirements of § 91.1093; and

(5) Has been approved by the Administrator for the check pilot (simulator) duties involved.

(d) Completion of the requirements in paragraphs (b)(2), (3), and (4) or (c)(2), (3), and (4) of this section, as applicable, must be entered in the individual's training record maintained by the program manager.

(e) A check pilot who does not hold an appropriate medical certificate may function as a check pilot (simulator), but may not serve as a flightcrew member in operations under this subpart.

(f) A check pilot (simulator) must accomplish the following—

(1) Fly at least two flight segments as a required crewmember for the type, class, or category aircraft involved within the 12-month period preceding the performance of any check pilot duty in a flight simulator; or

(2) Before performing any check pilot duty in a flight simulator, satisfactorily complete an approved line-observation program within the period prescribed by that program.

(g) The flight segments or line-observation program required in paragraph (f) of this section are considered to be completed in the month required if completed in the month before or the month after the month in which they are due.

**§ 91.1091 Qualifications: Flight instructors (aircraft) and flight instructors (simulator).**

(a) For the purposes of this section and § 91.1095:

(1) A flight instructor (aircraft) is a person who is qualified to instruct in an aircraft, in a flight simulator, or in a flight training device for a particular type, class, or category aircraft.

(2) A flight instructor (simulator) is a person who is qualified to instruct in a flight simulator, in a flight training device, or in both, for a particular type, class, or category aircraft.

(3) Flight instructors (aircraft) and flight instructors (simulator) are those instructors who perform the functions described in § 91.1073(a)(4) and (c).

(b) No program manager may use a person, nor may any person serve as a flight instructor (aircraft) in a training program established under this subpart unless, with respect to the type, class, or category aircraft involved, that person—

(1) Holds the pilot certificates and ratings required to serve as a pilot in command in operations under this subpart or part 121 or 135 of this chapter;

(2) Has satisfactorily completed the training phases for the aircraft, including recurrent training, that are required to serve as a pilot in command in operations under this subpart;

(3) Has satisfactorily completed the proficiency or competency checks that are required to serve as a pilot in command in operations under this subpart;

(4) Has satisfactorily completed the applicable training requirements of § 91.1095; and

(5) Holds at least a Class III medical certificate.

(c) No program manager may use a person, nor may any person serve as a flight instructor (simulator) in a training

program established under this subpart, unless, with respect to the type, class, or category aircraft involved, that person meets the provisions of paragraph (b) of this section, or—

(1) Holds the pilot certificates and ratings, except medical certificate, required to serve as a pilot in command in operations under this subpart or part 121 or 135 of this chapter;

(2) Has satisfactorily completed the appropriate training phases for the aircraft, including recurrent training, that are required to serve as a pilot in command in operations under this subpart;

(3) Has satisfactorily completed the appropriate proficiency or competency checks that are required to serve as a pilot in command in operations under this subpart; and

(4) Has satisfactorily completed the applicable training requirements of § 91.1095.

(d) Completion of the requirements in paragraphs (b)(2), (3), and (4) or (c)(2), (3), and (4) of this section, as applicable, must be entered in the individual's training record maintained by the program manager.

(e) A pilot who does not hold a medical certificate may function as a flight instructor in an aircraft if functioning as a non-required crewmember, but may not serve as a flightcrew member in operations under this subpart.

(f) A flight instructor (simulator) must accomplish the following—

(1) Fly at least two flight segments as a required crewmember for the type, class, or category aircraft involved within the 12-month period preceding the performance of any flight instructor duty in a flight simulator; or

(2) Satisfactorily complete an approved line-observation program within the period prescribed by that program and that must precede the performance of any check pilot duty in a flight simulator.

(g) The flight segments or line-observation program required in paragraph (f) of this section are considered completed in the month required if completed in the month before, or in the month after, the month in which they are due.

**§ 91.1093 Initial and transition training and checking: Check pilots (aircraft), check pilots (simulator).**

(a) No program manager may use a person nor may any person serve as a check pilot unless—

(1) That person has satisfactorily completed initial or transition check pilot training; and

(2) Within the preceding 24 months, that person satisfactorily conducts a

proficiency or competency check under the observation of an FAA inspector or an aircrew designated examiner employed by the program manager. The observation check may be accomplished in part or in full in an aircraft, in a flight simulator, or in a flight training device.

(b) The observation check required by paragraph (a)(2) of this section is considered to have been completed in the month required if completed in the month before or the month after the month in which it is due.

(c) The initial ground training for check pilots must include the following:

(1) Check pilot duties, functions, and responsibilities.

(2) The applicable provisions of the Code of Federal Regulations and the program manager's policies and procedures.

(3) The applicable methods, procedures, and techniques for conducting the required checks.

(4) Proper evaluation of student performance including the detection of—

(i) Improper and insufficient training; and

(ii) Personal characteristics of an applicant that could adversely affect safety.

(5) The corrective action in the case of unsatisfactory checks.

(6) The approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures in the aircraft.

(d) The transition ground training for a check pilot must include the approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures applicable to the aircraft to which the check pilot is in transition.

(e) The initial and transition flight training for a check pilot (aircraft) must include the following—

(1) The safety measures for emergency situations that are likely to develop during a check;

(2) The potential results of improper, untimely, or nonexecution of safety measures during a check;

(3) Training and practice in conducting flight checks from the left and right pilot seats in the required normal, abnormal, and emergency procedures to ensure competence to conduct the pilot flight checks required by this subpart; and

(4) The safety measures to be taken from either pilot seat for emergency situations that are likely to develop during checking.

(f) The requirements of paragraph (e) of this section may be accomplished in full or in part in flight, in a flight

simulator, or in a flight training device, as appropriate.

(g) The initial and transition flight training for a check pilot (simulator) must include the following:

(1) Training and practice in conducting flight checks in the required normal, abnormal, and emergency procedures to ensure competence to conduct the flight checks required by this subpart. This training and practice must be accomplished in a flight simulator or in a flight training device.

(2) Training in the operation of flight simulators, flight training devices, or both, to ensure competence to conduct the flight checks required by this subpart.

**§ 91.1095 Initial and transition training and checking: Flight instructors (aircraft), flight instructors (simulator).**

(a) No program manager may use a person nor may any person serve as a flight instructor unless—

(1) That person has satisfactorily completed initial or transition flight instructor training; and

(2) Within the preceding 24 months, that person satisfactorily conducts instruction under the observation of an FAA inspector, a program manager check pilot, or an aircrew designated examiner employed by the program manager. The observation check may be accomplished in part or in full in an aircraft, in a flight simulator, or in a flight training device.

(b) The observation check required by paragraph (a)(2) of this section is considered to have been completed in the month required if completed in the month before, or the month after, the month in which it is due.

(c) The initial ground training for flight instructors must include the following:

(1) Flight instructor duties, functions, and responsibilities.

(2) The applicable Code of Federal Regulations and the program manager's policies and procedures.

(3) The applicable methods, procedures, and techniques for conducting flight instruction.

(4) Proper evaluation of student performance including the detection of—

(i) Improper and insufficient training; and

(ii) Personal characteristics of an applicant that could adversely affect safety.

(5) The corrective action in the case of unsatisfactory training progress.

(6) The approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures in the aircraft.

(7) Except for holders of a flight instructor certificate—

(i) The fundamental principles of the teaching-learning process;

(ii) Teaching methods and procedures; and

(iii) The instructor-student relationship.

(d) The transition ground training for flight instructors must include the approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures applicable to the type, class, or category aircraft to which the flight instructor is in transition.

(e) The initial and transition flight training for flight instructors (aircraft) must include the following—

(1) The safety measures for emergency situations that are likely to develop during instruction;

(2) The potential results of improper or untimely safety measures during instruction;

(3) Training and practice from the left and right pilot seats in the required normal, abnormal, and emergency maneuvers to ensure competence to conduct the flight instruction required by this subpart; and

(4) The safety measures to be taken from either the left or right pilot seat for emergency situations that are likely to develop during instruction.

(f) The requirements of paragraph (e) of this section may be accomplished in full or in part in flight, in a flight simulator, or in a flight training device, as appropriate.

(g) The initial and transition flight training for a flight instructor (simulator) must include the following:

(1) Training and practice in the required normal, abnormal, and emergency procedures to ensure competence to conduct the flight instruction required by this subpart. These maneuvers and procedures must be accomplished in full or in part in a flight simulator or in a flight training device.

(2) Training in the operation of flight simulators, flight training devices, or both, to ensure competence to conduct the flight instruction required by this subpart.

**§ 91.1097 Pilot and flight attendant crewmember training programs.**

(a) Each program manager must establish and maintain an approved pilot training program, and each program manager who uses a flight attendant crewmember must establish and maintain an approved flight attendant training program, that is appropriate to the operations to which each pilot and flight attendant is to be

assigned, and will ensure that they are adequately trained to meet the applicable knowledge and practical testing requirements of §§ 91.1065 through 91.1071.

(b) Each program manager required to have a training program by paragraph (a) of this section must include in that program ground and flight training curriculums for—

(1) Initial training;

(2) Transition training;

(3) Upgrade training;

(4) Differences training;

(5) Recurrent training; and

(6) Requalification training.

(c) Each program manager must provide current and appropriate study materials for use by each required pilot and flight attendant.

(d) The program manager must furnish copies of the pilot and flight attendant crewmember training program, and all changes and additions, to the assigned representative of the Administrator. If the program manager uses training facilities of other persons, a copy of those training programs or appropriate portions used for those facilities must also be furnished. Curricula that follow FAA published curricula may be cited by reference in the copy of the training program furnished to the representative of the Administrator and need not be furnished with the program.

**§ 91.1099 Crewmember initial and recurrent training requirements.**

No program manager may use a person, nor may any person serve, as a crewmember in operations under this subpart unless that crewmember has completed the appropriate initial or recurrent training phase of the training program appropriate to the type of operation in which the crewmember is to serve since the beginning of the 12th month before that service.

**§ 91.1101 Pilots: Initial, transition, and upgrade ground training.**

Initial, transition, and upgrade ground training for pilots must include instruction in at least the following, as applicable to their duties:

(a) General subjects—

(1) The program manager's flight locating procedures;

(2) Principles and methods for determining weight and balance, and runway limitations for takeoff and landing;

(3) Enough meteorology to ensure a practical knowledge of weather phenomena, including the principles of frontal systems, icing, fog, thunderstorms, windshear and, if appropriate, high altitude weather situations;

(4) Air traffic control systems, procedures, and phraseology;

(5) Navigation and the use of navigational aids, including instrument approach procedures;

(6) Normal and emergency communication procedures;

(7) Visual cues before and during descent below Decision Altitude or MDA; and

(8) Other instructions necessary to ensure the pilot's competence.

(b) For each aircraft type—

(1) A general description;

(2) Performance characteristics;

(3) Engines and propellers;

(4) Major components;

(5) Major aircraft systems (that is, flight controls, electrical, and hydraulic), other systems, as appropriate, principles of normal, abnormal, and emergency operations, appropriate procedures and limitations;

(6) Knowledge and procedures for—

(i) Recognizing and avoiding severe weather situations;

(ii) Escaping from severe weather situations, in case of inadvertent encounters, including low-altitude windshear (except that rotorcraft pilots are not required to be trained in escaping from low-altitude windshear);

(iii) Operating in or near thunderstorms (including best penetration altitudes), turbulent air (including clear air turbulence), inflight icing, hail, and other potentially hazardous meteorological conditions; and

(iv) Operating airplanes during ground icing conditions, (that is, any time conditions are such that frost, ice, or snow may reasonably be expected to adhere to the aircraft), if the program manager expects to authorize takeoffs in ground icing conditions, including:

(A) The use of holdover times when using deicing/anti-icing fluids;

(B) Airplane deicing/anti-icing procedures, including inspection and check procedures and responsibilities;

(C) Communications;

(D) Airplane surface contamination (that is, adherence of frost, ice, or snow) and critical area identification, and knowledge of how contamination adversely affects airplane performance and flight characteristics;

(E) Types and characteristics of deicing/anti-icing fluids, if used by the program manager;

(F) Cold weather preflight inspection procedures;

(G) Techniques for recognizing contamination on the airplane;

(7) Operating limitations;

(8) Fuel consumption and cruise control;

(9) Flight planning;

(10) Each normal and emergency procedure; and

(11) The approved Aircraft Flight Manual or equivalent.

**§ 91.1103 Pilots: Initial, transition, upgrade, requalification, and differences flight training.**

(a) Initial, transition, upgrade, requalification, and differences training for pilots must include flight and practice in each of the maneuvers and procedures contained in each of the curriculums that are a part of the approved training program.

(b) The maneuvers and procedures required by paragraph (a) of this section must be performed in flight, except to the extent that certain maneuvers and procedures may be performed in an aircraft simulator, or an appropriate training device, as allowed by this subpart.

(c) If the program manager's approved training program includes a course of training using an aircraft simulator or other training device, each pilot must successfully complete—

(1) Training and practice in the simulator or training device in at least the maneuvers and procedures in this subpart that are capable of being performed in the aircraft simulator or training device; and

(2) A flight check in the aircraft or a check in the simulator or training device to the level of proficiency of a pilot in command or second in command, as applicable, in at least the maneuvers and procedures that are capable of being performed in an aircraft simulator or training device.

**§ 91.1105 Flight attendants: Initial and transition ground training.**

Initial and transition ground training for flight attendants must include instruction in at least the following—

(a) General subjects—

(1) The authority of the pilot in command; and

(2) Passenger handling, including procedures to be followed in handling deranged persons or other persons whose conduct might jeopardize safety.

(b) For each aircraft type—

(1) A general description of the aircraft emphasizing physical characteristics that may have a bearing on ditching, evacuation, and inflight emergency procedures and on other related duties;

(2) The use of both the public address system and the means of communicating with other flight crewmembers, including emergency means in the case of attempted hijacking or other unusual situations; and

(3) Proper use of electrical galley equipment and the controls for cabin heat and ventilation.

**§ 91.1107 Recurrent training.**

(a) Each program manager must ensure that each crewmember receives recurrent training and is adequately trained and currently proficient for the type aircraft and crewmember position involved.

(b) Recurrent ground training for crewmembers must include at least the following:

(1) A quiz or other review to determine the crewmember's knowledge of the aircraft and crewmember position involved.

(2) Instruction as necessary in the subjects required for initial ground training by this subpart, as appropriate, including low-altitude windshear training and training on operating during ground icing conditions, as prescribed in § 91.1097 and described in § 91.1101, and emergency training.

(c) Recurrent flight training for pilots must include, at least, flight training in the maneuvers or procedures in this subpart, except that satisfactory completion of the check required by § 91.1065 within the preceding 12 months may be substituted for recurrent flight training.

**§ 91.1109 Aircraft maintenance: Inspection program.**

Each program manager must establish an aircraft inspection program for each make and model program aircraft and ensure each aircraft is inspected in accordance with that inspection program.

(a) The inspection program must be in writing and include at least the following information:

(1) Instructions and procedures for the conduct of inspections for the particular make and model aircraft, including necessary tests and checks. The instructions and procedures must set forth in detail the parts and areas of the airframe, engines, propellers, rotors, and appliances, including survival and emergency equipment required to be inspected.

(2) A schedule for performing the inspections that must be accomplished under the inspection program expressed in terms of the time in service, calendar time, number of system operations, or any combination thereof.

(3) The name and address of the person responsible for scheduling the inspections required by the inspection program. A copy of the inspection program must be made available to the person performing inspections on the aircraft and, upon request, to the Administrator.

(b) Each person desiring to establish or change an approved inspection program under this section must submit the inspection program for approval to the Flight Standards District Office that issued the program manager's management specifications. The inspection program must be derived from one of the following programs:

(1) An inspection program currently recommended by the manufacturer of the aircraft, aircraft engines, propellers, appliances, and survival and emergency equipment;

(2) An inspection program that is part of a continuous airworthiness maintenance program currently in use by a person holding an air carrier or operating certificate issued under part 119 of this chapter and operating that make and model aircraft under part 121 or 135 of this chapter;

(3) An aircraft inspection program approved under § 135.419 of this chapter and currently in use under part 135 of this chapter by a person holding a certificate issued under part 119 of this chapter; or

(4) An airplane inspection program approved under § 125.247 of this chapter and currently in use under part 125 of this chapter.

(5) An inspection program that is part of the program manager's continuous airworthiness maintenance program under §§ 91.1411 through 91.1443.

(c) The Administrator may require revision of the inspection program approved under this section in accordance with the provisions of § 91.415.

**§ 91.1111 Maintenance training.**

The program manager must ensure that all employees who are responsible for maintenance related to program aircraft undergo appropriate initial and annual recurrent training and are competent to perform those duties.

**§ 91.1113 Maintenance recordkeeping.**

Each fractional ownership program manager must keep (using the system specified in the manual required in § 91.1025) the records specified in § 91.417(a) for the periods specified in § 91.417(b).

**§ 91.1115 Inoperable instruments and equipment.**

(a) No person may take off an aircraft with inoperable instruments or equipment installed unless the following conditions are met:

(1) An approved Minimum Equipment List exists for that aircraft.

(2) The program manager has been issued management specifications authorizing operations in accordance

with an approved Minimum Equipment List. The flight crew must have direct access at all times prior to flight to all of the information contained in the approved Minimum Equipment List through printed or other means approved by the Administrator in the program manager's management specifications. An approved Minimum Equipment List, as authorized by the management specifications, constitutes an approved change to the type design without requiring recertification.

(3) The approved Minimum Equipment List must:

(i) Be prepared in accordance with the limitations specified in paragraph (b) of this section.

(ii) Provide for the operation of the aircraft with certain instruments and equipment in an inoperable condition.

(4) Records identifying the inoperable instruments and equipment and the information required by (a)(3)(ii) of this section must be available to the pilot.

(5) The aircraft is operated under all applicable conditions and limitations contained in the Minimum Equipment List and the management specifications authorizing use of the Minimum Equipment List.

(b) The following instruments and equipment may not be included in the Minimum Equipment List:

(1) Instruments and equipment that are either specifically or otherwise required by the airworthiness requirements under which the airplane is type certificated and that are essential for safe operations under all operating conditions.

(2) Instruments and equipment required by an airworthiness directive to be in operable condition unless the airworthiness directive provides otherwise.

(3) Instruments and equipment required for specific operations by this part.

(c) Notwithstanding paragraphs (b)(1) and (b)(3) of this section, an aircraft with inoperable instruments or equipment may be operated under a special flight permit under §§ 21.197 and 21.199 of this chapter.

(d) A person authorized to use an approved Minimum Equipment List issued for a specific aircraft under part 121, 125, or 135 of this chapter must use that Minimum Equipment List to comply with this section.

**§ 91.1411 Continuous airworthiness maintenance program use by fractional ownership program manager.**

Fractional ownership program aircraft may be maintained under a continuous airworthiness maintenance program (CAMP) under §§ 91.1413 through

91.1443. Any program manager who elects to maintain the program aircraft using a continuous airworthiness maintenance program must comply with §§ 91.1413 through 91.1443.

**§ 91.1413 CAMP: Responsibility for airworthiness.**

(a) For aircraft maintained in accordance with a Continuous Airworthiness Maintenance Program, each program manager is primarily responsible for the following:

(1) Maintaining the airworthiness of the program aircraft, including airframes, aircraft engines, propellers, rotors, appliances, and parts.

(2) Maintaining its aircraft in accordance with the requirements of this chapter.

(3) Repairing defects that occur between regularly scheduled maintenance required under part 43 of this chapter.

(b) Each program manager who maintains program aircraft under a CAMP must—

(1) Employ a Director of Maintenance or equivalent position. The Director of Maintenance must be a certificated mechanic with airframe and powerplant ratings who has responsibility for the maintenance program on all program aircraft maintained under a continuous airworthiness maintenance program. This person cannot also act as Chief Inspector.

(2) Employ a Chief Inspector or equivalent position. The Chief Inspector must be a certificated mechanic with airframe and powerplant ratings who has overall responsibility for inspection aspects of the CAMP. This person cannot also act as Director of Maintenance.

(3) Have the personnel to perform the maintenance of program aircraft, including airframes, aircraft engines, propellers, rotors, appliances, emergency equipment and parts, under its manual and this chapter; or make arrangements with another person for the performance of maintenance. However, the program manager must ensure that any maintenance, preventive maintenance, or alteration that is performed by another person is performed under the program manager's operating manual and this chapter.

**§ 91.1415 CAMP: Mechanical reliability reports.**

(a) Each program manager who maintains program aircraft under a CAMP must report the occurrence or detection of each failure, malfunction, or defect in an aircraft concerning—

(1) Fires during flight and whether the related fire-warning system functioned properly;

(2) Fires during flight not protected by related fire-warning system;

(3) False fire-warning during flight;

(4) An exhaust system that causes damage during flight to the engine, adjacent structure, equipment, or components;

(5) An aircraft component that causes accumulation or circulation of smoke, vapor, or toxic or noxious fumes in the crew compartment or passenger cabin during flight;

(6) Engine shutdown during flight because of flameout;

(7) Engine shutdown during flight when external damage to the engine or aircraft structure occurs;

(8) Engine shutdown during flight because of foreign object ingestion or icing;

(9) Shutdown of more than one engine during flight;

(10) A propeller feathering system or ability of the system to control overspeed during flight;

(11) A fuel or fuel-dumping system that affects fuel flow or causes hazardous leakage during flight;

(12) An unwanted landing gear extension or retraction or opening or closing of landing gear doors during flight;

(13) Brake system components that result in loss of brake actuating force when the aircraft is in motion on the ground;

(14) Aircraft structure that requires major repair;

(15) Cracks, permanent deformation, or corrosion of aircraft structures, if more than the maximum acceptable to the manufacturer or the FAA; and

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

(b) For the purpose of this section, *during flight* means the period from the moment the aircraft leaves the surface of the earth on takeoff until it touches down on landing.

(c) In addition to the reports required by paragraph (a) of this section, each program manager must report any other failure, malfunction, or defect in an aircraft that occurs or is detected at any time if, in the manager's opinion, the failure, malfunction, or defect has endangered or may endanger the safe operation of the aircraft.

(d) Each program manager must send each report required by this section, in writing, covering each 24-hour period beginning at 0900 hours local time of each day and ending at 0900 hours local time on the next day to the Flight Standards District Office that issued the program manager's management specifications. Each report of

occurrences during a 24-hour period must be mailed or transmitted to that office within the next 72 hours.

However, a report that is due on Saturday or Sunday may be mailed or transmitted on the following Monday and one that is due on a holiday may be mailed or transmitted on the next workday. For aircraft operated in areas where mail is not collected, reports may be mailed or transmitted within 72 hours after the aircraft returns to a point where the mail is collected.

(e) The program manager must transmit the reports required by this section on a form and in a manner prescribed by the Administrator, and must include as much of the following as is available:

- (1) The type and identification number of the aircraft.
- (2) The name of the program manager.
- (3) The date.
- (4) The nature of the failure, malfunction, or defect.
- (5) Identification of the part and system involved, including available information pertaining to type designation of the major component and time since last overhaul, if known.
- (6) Apparent cause of the failure, malfunction or defect (for example, wear, crack, design deficiency, or personnel error).

(7) Other pertinent information necessary for more complete identification, determination of seriousness, or corrective action.

(f) A program manager that is also the holder of a type certificate (including a supplemental type certificate), a Parts Manufacturer Approval, or a Technical Standard Order Authorization, or that is the licensee of a type certificate need not report a failure, malfunction, or defect under this section if the failure, malfunction, or defect has been reported by it under § 21.3 of this chapter or under the accident reporting provisions of part 830 of the regulations of the National Transportation Safety Board.

(g) No person may withhold a report required by this section even when not all information required by this section is available.

(h) When the program manager receives additional information, including information from the manufacturer or other agency, concerning a report required by this section, the program manager must expeditiously submit it as a supplement to the first report and reference the date and place of submission of the first report.

**§ 91.1417 CAMP: Mechanical interruption summary report.**

Each program manager who maintains program aircraft under a CAMP must

mail or deliver, before the end of the 10th day of the following month, a summary report of the following occurrences in multiengine aircraft for the preceding month to the Flight Standards District Office that issued the management specifications:

(a) Each interruption to a flight, unscheduled change of aircraft en route, or unscheduled stop or diversion from a route, caused by known or suspected mechanical difficulties or malfunctions that are not required to be reported under § 91.1415.

(b) The number of propeller featherings in flight, listed by type of propeller and engine and aircraft on which it was installed. Propeller featherings for training, demonstration, or flight check purposes need not be reported.

**§ 91.1423 CAMP: Maintenance organization.**

(a) Each program manager who maintains program aircraft under a CAMP that has its personnel perform any of its maintenance (other than required inspections), preventive maintenance, or alterations, and each person with whom it arranges for the performance of that work, must have an organization adequate to perform the work.

(b) Each program manager who has personnel perform any inspections required by the program manager's manual under § 91.1427(b) (2) or (3), (in this subpart referred to as required inspections), and each person with whom the program manager arranges for the performance of that work, must have an organization adequate to perform that work.

(c) Each person performing required inspections in addition to other maintenance, preventive maintenance, or alterations, must organize the performance of those functions so as to separate the required inspection functions from the other maintenance, preventive maintenance, or alteration functions. The separation must be below the level of administrative control at which overall responsibility for the required inspection functions and other maintenance, preventive maintenance, or alterations is exercised.

**§ 91.1425 CAMP: Maintenance, preventive maintenance, and alteration programs.**

Each program manager who maintains program aircraft under a CAMP must have an inspection program and a program covering other maintenance, preventive maintenance, or alterations that ensures that—

(a) Maintenance, preventive maintenance, or alterations performed

by its personnel, or by other persons, are performed under the program manager's manual;

(b) Competent personnel and adequate facilities and equipment are provided for the proper performance of maintenance, preventive maintenance, or alterations; and

(c) Each aircraft released to service is airworthy and has been properly maintained for operation under this part.

**§ 91.1427 CAMP: Manual requirements.**

(a) Each program manager who maintains program aircraft under a CAMP must put in the operating manual the chart or description of the program manager's organization required by § 91.1423 and a list of persons with whom it has arranged for the performance of any of its required inspections, and other maintenance, preventive maintenance, or alterations, including a general description of that work.

(b) Each program manager must put in the operating manual the programs required by § 91.1425 that must be followed in performing maintenance, preventive maintenance, or alterations of that program manager's aircraft, including airframes, aircraft engines, propellers, rotors, appliances, emergency equipment, and parts, and must include at least the following:

(1) The method of performing routine and nonroutine maintenance (other than required inspections), preventive maintenance, or alterations.

(2) A designation of the items of maintenance and alteration that must be inspected (required inspections) including at least those that could result in a failure, malfunction, or defect endangering the safe operation of the aircraft, if not performed properly or if improper parts or materials are used.

(3) The method of performing required inspections and a designation by occupational title of personnel authorized to perform each required inspection.

(4) Procedures for the reinspection of work performed under previous required inspection findings (buy-back procedures).

(5) Procedures, standards, and limits necessary for required inspections and acceptance or rejection of the items required to be inspected and for periodic inspection and calibration of precision tools, measuring devices, and test equipment.

(6) Procedures to ensure that all required inspections are performed.

(7) Instructions to prevent any person who performs any item of work from

performing any required inspection of that work.

(8) Instructions and procedures to prevent any decision of an inspector regarding any required inspection from being countermanded by persons other than supervisory personnel of the inspection unit, or a person at the level of administrative control that has overall responsibility for the management of both the required inspection functions and the other maintenance, preventive maintenance, or alterations functions.

(9) Procedures to ensure that maintenance (including required inspections), preventive maintenance, or alterations that are not completed because of work interruptions are properly completed before the aircraft is released to service.

(c) Each program manager must put in the manual a suitable system (which may include an electronic or coded system) that provides for the retention of the following information —

(1) A description (or reference to data acceptable to the Administrator) of the work performed;

(2) The name of the person performing the work if the work is performed by a person outside the organization of the program manager; and

(3) The name or other positive identification of the individual approving the work.

(d) For the purposes of this part, the program manager must prepare that part of its manual containing maintenance information and instructions, in whole or in part, in a format acceptable to the Administrator, that is retrievable in the English language.

**§ 91.1429 CAMP: Required inspection personnel.**

(a) No person who maintains an aircraft under a CAMP may use any person to perform required inspections unless the person performing the inspection is appropriately certificated, properly trained, qualified, and authorized to do so.

(b) No person may allow any person to perform a required inspection unless, at the time the work was performed, the person performing that inspection is under the supervision and control of the chief inspector.

(c) No person may perform a required inspection if that person performed the item of work required to be inspected.

(d) Each program manager must maintain, or must ensure that each person with whom it arranges to perform required inspections maintains, a current listing of persons who have been trained, qualified, and authorized

to conduct required inspections. The persons must be identified by name, occupational title, and the inspections that they are authorized to perform. The program manager (or person with whom it arranges to perform its required inspections) must give written information to each person so authorized, describing the extent of that person's responsibilities, authorities, and inspectional limitations. The list must be made available for inspection by the Administrator upon request.

**§ 91.1431 CAMP: Continuing analysis and surveillance.**

(a) Each program manager who maintains program aircraft under a CAMP must establish and maintain a system for the continuing analysis and surveillance of the performance and effectiveness of its inspection program and the program covering other maintenance, preventive maintenance, and alterations and for the correction of any deficiency in those programs, regardless of whether those programs are carried out by employees of the program manager or by another person.

(b) Whenever the Administrator finds that the programs described in paragraph (a) of this section does not contain adequate procedures and standards to meet this part, the program manager must, after notification by the Administrator, make changes in those programs requested by the Administrator.

(c) A program manager may petition the Administrator to reconsider the notice to make a change in a program. The petition must be filed with the Director, Flight Standards Service, within 30 days after the program manager receives the notice. Except in the case of an emergency requiring immediate action in the interest of safety, the filing of the petition stays the notice pending a decision by the Administrator.

**§ 91.1433 CAMP: Maintenance and preventive maintenance training program.**

Each program manager who maintains program aircraft under a CAMP or a person performing maintenance or preventive maintenance functions for it must have a training program to ensure that each person (including inspection personnel) who determines the adequacy of work done is fully informed about procedures and techniques and new equipment in use and is competent to perform that person's duties.

**§ 91.1435 CAMP: Certificate requirements.**

(a) Except for maintenance, preventive maintenance, alterations, and required inspections performed by

repair stations located outside the United States certificated under the provisions of part 145 of this chapter, each person who is directly in charge of maintenance, preventive maintenance, or alterations for a CAMP, and each person performing required inspections for a CAMP must hold an appropriate airman certificate.

(b) For the purpose of this section, a person "directly in charge" is each person assigned to a position in which that person is responsible for the work of a shop or station that performs maintenance, preventive maintenance, alterations, or other functions affecting airworthiness. A person who is directly in charge need not physically observe and direct each worker constantly but must be available for consultation and decision on matters requiring instruction or decision from higher authority than that of the person performing the work.

**§ 91.1437 CAMP: Authority to perform and approve maintenance.**

A program manager who maintains program aircraft under a CAMP may employ maintenance personnel, or make arrangements with other persons to perform maintenance and preventive maintenance as provided in its maintenance manual. Unless properly certificated, the program manager may not perform or approve maintenance for return to service.

**§ 91.1439 CAMP: Maintenance recording requirements.**

(a) Each program manager who maintains program aircraft under a CAMP must keep (using the system specified in the manual required in § 91.1427) the following records for the periods specified in paragraph (b) of this section:

(1) All the records necessary to show that all requirements for the issuance of an airworthiness release under § 91.1443 have been met.

(2) Records containing the following information:

(i) The total time in service of the airframe, engine, propeller, and rotor.

(ii) The current status of life-limited parts of each airframe, engine, propeller, rotor, and appliance.

(iii) The time since last overhaul of each item installed on the aircraft that are required to be overhauled on a specified time basis.

(iv) The identification of the current inspection status of the aircraft, including the time since the last inspections required by the inspection program under which the aircraft and its appliances are maintained.

(v) The current status of applicable airworthiness directives, including the

date and methods of compliance, and, if the airworthiness directive involves recurring action, the time and date when the next action is required.

(vi) A list of current major alterations and repairs to each airframe, engine, propeller, rotor, and appliance.

(b) Each program manager must retain the records required to be kept by this section for the following periods:

(1) Except for the records of the last complete overhaul of each airframe, engine, propeller, rotor, and appliance the records specified in paragraph (a)(1) of this section must be retained until the work is repeated or superseded by other work or for one year after the work is performed.

(2) The records of the last complete overhaul of each airframe, engine, propeller, rotor, and appliance must be retained until the work is superseded by work of equivalent scope and detail.

(3) The records specified in paragraph (a)(2) of this section must be retained as specified unless transferred with the aircraft at the time the aircraft is sold.

(c) The program manager must make all maintenance records required to be kept by this section available for inspection by the Administrator or any representative of the National Transportation Safety Board.

**§ 91.1441 CAMP: Transfer of maintenance records.**

When a U.S.-registered fractional ownership program aircraft maintained under a CAMP is removed from the list of program aircraft in the management specifications, the program manager must transfer to the purchaser, at the time of the sale, the following records of that aircraft, in plain language form or in coded form that provides for the preservation and retrieval of information in a manner acceptable to the Administrator:

(a) The records specified in § 91.1439(a)(2).

(b) The records specified in § 91.1439(a)(1) that are not included in the records covered by paragraph (a) of this section, except that the purchaser may allow the program manager to keep physical custody of such records. However, custody of records by the program manager does not relieve the purchaser of its responsibility under § 91.1439(c) to make the records available for inspection by the Administrator or any representative of the National Transportation Safety Board.

**§ 91.1443 CAMP: Airworthiness release or aircraft maintenance log entry.**

(a) No program aircraft maintained under a CAMP may be operated after

maintenance, preventive maintenance, or alterations are performed unless qualified, certificated personnel employed by the program manager prepare, or cause the person with whom the program manager arranges for the performance of the maintenance, preventive maintenance, or alterations, to prepare—

(1) An airworthiness release; or

(2) An appropriate entry in the aircraft maintenance log.

(b) The airworthiness release or log entry required by paragraph (a) of this section must—

(1) Be prepared in accordance with the procedure in the program manager's manual;

(2) Include a certification that—

(i) The work was performed in accordance with the requirements of the program manager's manual;

(ii) All items required to be inspected were inspected by an authorized person who determined that the work was satisfactorily completed;

(iii) No known condition exists that would make the aircraft unairworthy;

(iv) So far as the work performed is concerned, the aircraft is in condition for safe operation; and

(3) Be signed by an authorized certificated mechanic.

(c) Notwithstanding paragraph (b)(3) of this section, after maintenance, preventive maintenance, or alterations performed by a repair station certificated under the provisions of part 145 of this chapter, the approval for return to service or log entry required by paragraph (a) of this section may be signed by a person authorized by that repair station.

(d) Instead of restating each of the conditions of the certification required by paragraph (b) of this section, the program manager may state in its manual that the signature of an authorized certificated mechanic or repairman constitutes that certification.

■ 22. Amend appendix G to part 91 by revising paragraphs (a), (b)(2), and (b)(3) of Section 3 and the introductory text of Section 7 to read as follows:

**Appendix G to Part 91—Operations in Reduced Vertical Separation Minimum (RVSM) Airspace**

\* \* \* \* \*

*Section 3. Operator Authorization*

(a) Authority for an operator to conduct flight in airspace where RVSM is applied is issued in operations specifications, a Letter of Authorization, or management specifications issued under subpart K of this part, as appropriate. To issue an RVSM

authorization, the Administrator must find that the operator's aircraft have been approved in accordance with Section 2 of this appendix and the operator complies with this section.

(b) \* \* \*

(2) For an applicant who operates under part 121 or 135 of this chapter or under subpart K of this part, initial and recurring pilot training requirements.

(3) Policies and procedures: An applicant who operates under part 121 or 135 of this chapter or under subpart K of this part must submit RVSM policies and procedures that will enable it to conduct RVSM operations safely.

\* \* \* \* \*

*Section 7. Removal or Amendment of Authority*

The Administrator may amend operations specifications or management specifications issued under subpart K of this part to revoke or restrict an RVSM authorization, or may revoke or restrict an RVSM letter of authorization, if the Administrator determines that the operator is not complying, or is unable to comply, with this appendix or subpart H of this part. Examples of reasons for amendment, revocation, or restriction include, but are not limited to, an operator's:

\* \* \* \* \*

**PART 119—CERTIFICATION: AIR CARRIERS AND COMMERCIAL OPERATORS**

■ 23. The authority citation for part 119 continues to read as follows:

**Authority:** 49 U.S.C. 106(g), 1153, 40101, 40102, 40103, 40113, 44105, 44106, 44111, 44701-44717, 44722, 44901, 44903, 44904, 44906, 44912, 44914, 44936, 44938, 46103, 46105.

■ 24. Amend § 119.1 by revising paragraph (d) to read as follows:

**§ 119.1 Applicability.**

\* \* \* \* \*

(d) This part does not govern operations conducted under part 91, subpart K (when common carriage is not involved) nor does it govern operations conducted under part 129, 133, 137, or 139 of this chapter.

\* \* \* \* \*

**PART 125—CERTIFICATION AND OPERATIONS: AIRPLANES HAVING A SEATING CAPACITY OF 20 OR MORE PASSENGERS OR A MAXIMUM PAYLOAD CAPACITY OF 6,000 POUNDS OR MORE**

■ 25. The authority citation for part 125 continues to read as follows:

**Authority:** 49 U.S.C. 106(g), 40113, 44701–44702, 44705, 44710–44711, 44713, 44716–44717, 44722.

■ 26. Amend § 125.1 by revising paragraphs (b)(4) and (5) and by adding paragraphs (b)(6) and (b)(7) as follows:

**§ 125.1 Applicability.**

\* \* \* \* \*

(b) \* \* \*

(4) They are being operated under part 91 by an operator certificated to operate those airplanes under the rules of parts 121, 135, or 137 of this chapter, they are being operated under the applicable rules of part 121 or part 135 of this chapter by an applicant for a certificate under part 119 of this chapter or they are being operated by a foreign air carrier or a foreign person engaged in common carriage solely outside the United States under part 91 of this chapter;

(5) They are being operated under a deviation authority issued under § 125.3;

(6) They are being operated under part 91, subpart K by a fractional owner as defined in § 91.1001 of this chapter; or

(7) They are being operated by a fractional ownership program manager as defined in § 91.1001 of this chapter, for training, ferrying, positioning, maintenance, or demonstration purposes under part 91 of this chapter and without carrying passengers or cargo for compensation or hire except as permitted for demonstration flights under § 91.501(b)(3) of this chapter.

\* \* \* \* \*

**PART 135—OPERATING REQUIREMENTS: COMMUTER AND ON-DEMAND OPERATIONS**

■ 27. The authority citation for part 135 continues to read as follows:

**Authority:** 49 U.S.C. 106(g), 44113, 44701–44702, 44705, 44709, 44711–44713, 44715–44717, 44722.

■ 28. Add § 135.4 to read as follows:

**§ 135.4 Applicability of rules for eligible on-demand operations.**

(a) An “eligible on-demand operation” is an on-demand operation conducted under this part that meets the following requirements:

(1) *Two-pilot crew.* The flightcrew must consist of at least two qualified pilots employed or contracted by the certificate holder.

(2) *Flight crew experience.* The crewmembers must have met the applicable requirements of part 61 of this chapter and have the following experience and ratings:

(i) Total flight time for all pilots:

(A) Pilot in command—A minimum of 1,500 hours.

(B) Second in command—A minimum of 500 hours.

(ii) For multi-engine turbine-powered fixed-wing and powered-lift aircraft, the following FAA certification and ratings requirements:

(A) Pilot in command—Airline transport pilot and applicable type ratings.

(B) Second in command—Commercial pilot and instrument ratings.

(iii) For all other aircraft, the following FAA certification and rating requirements:

(A) Pilot in command—Commercial pilot and instrument ratings.

(B) Second in command—Commercial pilot and instrument ratings.

(3) *Pilot operating limitations.* If the second in command of a fixed-wing aircraft has fewer than 100 hours of flight time as second in command flying in the aircraft make and model and, if a type rating is required, in the type aircraft being flown, and the pilot in command is not an appropriately qualified check pilot, the pilot in command shall make all takeoffs and landings in any of the following situations:

(i) Landings at the destination airport when a Destination Airport Analysis is required by § 135.385(f); and

(ii) In any of the following conditions:

(A) The prevailing visibility for the airport is at or below  $\frac{3}{4}$  mile.

(B) The runway visual range for the runway to be used is at or below 4,000 feet.

(C) The runway to be used has water, snow, slush, ice, or similar contamination that may adversely affect aircraft performance.

(D) The braking action on the runway to be used is reported to be less than “good.”

(E) The crosswind component for the runway to be used is in excess of 15 knots.

(F) Windshear is reported in the vicinity of the airport.

(G) Any other condition in which the pilot in command determines it to be prudent to exercise the pilot in command’s authority.

(4) *Crew pairing.* Either the pilot in command or the second in command must have at least 75 hours of flight time in that aircraft make or model and, if a type rating is required, for that type aircraft, either as pilot in command or second in command.

(b) The Administrator may authorize deviations from paragraphs (a)(2)(i) or (a)(4) of this section if the Flight Standards District Office that issued the certificate holder’s operations specifications finds that the crewmember has comparable

experience, and can effectively perform the functions associated with the position in accordance with the requirements of this chapter. The Administrator may, at any time, terminate any grant of deviation authority issued under this paragraph. Grants of deviation under this paragraph may be granted after consideration of the size and scope of the operation, the qualifications of the intended personnel and the following circumstances:

(1) A newly authorized certificate holder does not employ any pilots who meet the minimum requirements of paragraphs (a)(2)(i) or (a)(4) of this section.

(2) An existing certificate holder adds to its fleet a new category and class aircraft not used before in its operation.

(3) An existing certificate holder establishes a new base to which it assigns pilots who will be required to become qualified on the aircraft operated from that base.

(c) An eligible on-demand operation may comply with alternative requirements specified in §§ 135.225(b), 135.385(f), and 135.387(b) instead of the requirements that apply to other on-demand operations.

■ 29. Amend § 135.21 by revising paragraphs (f) and (g) and adding paragraph (h) to read as follows:

**§ 135.21 Manual requirements.**

\* \* \* \* \*

(f) Except as provided in paragraph (h) of this section, each certificate holder must carry appropriate parts of the manual on each aircraft when away from the principal operations base. The appropriate parts must be available for use by ground or flight personnel.

(g) For the purpose of complying with paragraph (d) of this section, a certificate holder may furnish the persons listed therein with all or part of its manual in printed form or other form, acceptable to the Administrator, that is retrievable in the English language. If the certificate holder furnishes all or part of the manual in other than printed form, it must ensure there is a compatible reading device available to those persons that provides a legible image of the information and instructions, or a system that is able to retrieve the information and instructions in the English language.

(h) If a certificate holder conducts aircraft inspections or maintenance at specified stations where it keeps the approved inspection program manual, it is not required to carry the manual aboard the aircraft en route to those stations.

■ 30. Amend § 135.23 by revising paragraph (r) and adding paragraph (s) to read as follows:

§ 135.23 Manual contents.

(r) If required by § 135.385, an approved Destination Airport Analysis establishing runway safety margins at destination airports, taking into account the following factors as supported by published aircraft performance data supplied by the aircraft manufacturer for the appropriate runway conditions—

- (1) Pilot qualifications and experience;
(2) Aircraft performance data to include normal, abnormal and emergency procedures as supplied by the aircraft manufacturer;
(3) Airport facilities and topography;
(4) Runway conditions (including contamination);
(5) Airport or area weather reporting;
(6) Appropriate additional runway safety margins, if required;
(7) Airplane inoperative equipment;
(8) Environmental conditions; and
(9) Other criteria affecting aircraft performance.
(s) Other procedures and policy instructions regarding the certificate holder's operations issued by the certificate holder.

■ 31. Revise § 135.145 to read as follows:

§ 135.145 Aircraft proving and validation tests.

(a) No certificate holder may operate an aircraft, other than a turbojet aircraft, for which two pilots are required by this chapter for operations under VFR, if it has not previously proved such an aircraft in operations under this part in at least 25 hours of proving tests acceptable to the Administrator including—

- (1) Five hours of night time, if night flights are to be authorized;
(2) Five instrument approach procedures under simulated or actual conditions, if IFR flights are to be authorized; and
(3) Entry into a representative number of en route airports as determined by the Administrator.

(b) No certificate holder may operate a turbojet airplane if it has not previously proved a turbojet airplane in operations under this part in at least 25 hours of proving tests acceptable to the Administrator including—

- (1) Five hours of night time, if night flights are to be authorized;
(2) Five instrument approach procedures under simulated or actual conditions, if IFR flights are to be authorized; and

(3) Entry into a representative number of en route airports as determined by the Administrator.

(c) No certificate holder may carry passengers in an aircraft during proving tests, except those needed to make the tests and those designated by the Administrator to observe the tests. However, pilot flight training may be conducted during the proving tests.

(d) Validation testing is required to determine that a certificate holder is capable of conducting operations safely and in compliance with applicable regulatory standards. Validation tests are required for the following authorizations:

- (1) The addition of an aircraft for which two pilots are required for operations under VFR or a turbojet airplane, if that aircraft or an aircraft of the same make or similar design has not been previously proved or validated in operations under this part.
(2) Operations outside U.S. airspace.
(3) Class II navigation authorizations.
(4) Special performance or operational authorizations.

(e) Validation tests must be accomplished by test methods acceptable to the Administrator. Actual flights may not be required when an applicant can demonstrate competence and compliance with appropriate regulations without conducting a flight.

(f) Proving tests and validation tests may be conducted simultaneously when appropriate.

(g) The Administrator may authorize deviations from this section if the Administrator finds that special circumstances make full compliance with this section unnecessary.

■ 32. Amend § 135.167 by revising paragraph (a) introductory text to read as follows:

§ 135.167 Emergency equipment: Extended overwater operations.

(a) Except where the Administrator, by amending the operations specifications of the certificate holder, requires the carriage of all or any specific items of the equipment listed below for any overwater operation, or, upon application of the certificate holder, the Administrator allows deviation for a particular extended overwater operation, no person may operate an aircraft in extended overwater operations unless it carries, installed in conspicuously marked locations easily accessible to the occupants if a ditching occurs, the following equipment:

\* \* \* \* \*

■ 33. Amend § 135.179 by revising paragraph (c) to read as follows:

§ 135.179 Inoperable instruments and equipment.

\* \* \* \* \*

(c) Notwithstanding paragraphs (b)(1) and (b)(3) of this section, an aircraft with inoperable instruments or equipment may be operated under a special flight permit under §§ 21.197 and 21.199 of this chapter.

■ 34. Amend § 135.225 by revising paragraph (a) introductory text, redesignating paragraphs (b) through (h) as paragraphs (c) through (i), adding new paragraph (b), and revising redesignated paragraphs (d) and (h) to read as follows:

§ 135.225 IFR: Takeoff, approach and landing minimums.

(a) Except to the extent permitted by paragraph (b) of this section, no pilot may begin an instrument approach procedure to an airport unless—

\* \* \* \* \*

(b) A pilot conducting an eligible on-demand operation may begin an instrument approach procedure to an airport that does not have a weather reporting facility operated by the U.S. National Weather Service, a source approved by the U.S. National Weather Service, or a source approved by the Administrator if—

(1) The alternate airport has a weather reporting facility operated by the U.S. National Weather Service, a source approved by the U.S. National Weather Service, or a source approved by the Administrator; and

(2) The latest weather report issued by the weather reporting facility includes a current local altimeter setting for the destination airport. If no local altimeter setting for the destination airport is available, the pilot may use the current altimeter setting provided by the facility designated on the approach chart for the destination airport.

\* \* \* \* \*

(d) If a pilot has begun the final approach segment of an instrument approach to an airport under paragraph (c) of this section and a later weather report indicating below minimum conditions is received after the aircraft is—

\* \* \* \* \*

(h) Except as provided in paragraph (i) of this section, if takeoff minimums are not prescribed in part 97 of this chapter for the takeoff airport, no pilot may takeoff an aircraft under IFR when the weather conditions reported by the facility described in paragraph (a)(1) of this section are less than that prescribed in part 91 of this chapter or in the certificate holder's operations specifications.

\* \* \* \* \*

■ 35. Amend § 135.247 by adding paragraph (a)(3) to read as follows:

**§ 135.247 Pilot qualifications: Recent experience.**

(a) \* \* \*

(3) Paragraph (a)(2) of this section does not apply to a pilot in command of a turbine-powered airplane that is type certificated for more than one pilot crewmember, provided that pilot has complied with the requirements of paragraph (a)(3)(i) or (ii) of this section:

(i) The pilot in command must hold at least a commercial pilot certificate with the appropriate category, class, and type rating for each airplane that is type certificated for more than one pilot crewmember that the pilot seeks to operate under this alternative, and:

(A) That pilot must have logged at least 1,500 hours of aeronautical experience as a pilot;

(B) In each airplane that is type certificated for more than one pilot crewmember that the pilot seeks to operate under this alternative, that pilot must have accomplished and logged the daytime takeoff and landing recent flight experience of paragraph (a) of this section, as the sole manipulator of the flight controls;

(C) Within the preceding 90 days prior to the operation of that airplane that is type certificated for more than one pilot crewmember, the pilot must have accomplished and logged at least 15 hours of flight time in the type of airplane that the pilot seeks to operate under this alternative; and

(D) That pilot has accomplished and logged at least 3 takeoffs and 3 landings to a full stop, as the sole manipulator of the flight controls, in a turbine-powered airplane that requires more than one pilot crewmember. The pilot must have performed the takeoffs and landings during the period beginning 1 hour after sunset and ending 1 hour before sunrise within the preceding 6 months prior to the month of the flight.

(ii) The pilot in command must hold at least a commercial pilot certificate with the appropriate category, class, and type rating for each airplane that is type certificated for more than one pilot crewmember that the pilot seeks to operate under this alternative, and:

(A) That pilot must have logged at least 1,500 hours of aeronautical experience as a pilot;

(B) In each airplane that is type certificated for more than one pilot crewmember that the pilot seeks to operate under this alternative, that pilot must have accomplished and logged the daytime takeoff and landing recent flight experience of paragraph (a) of this

section, as the sole manipulator of the flight controls;

(C) Within the preceding 90 days prior to the operation of that airplane that is type certificated for more than one pilot crewmember, the pilot must have accomplished and logged at least 15 hours of flight time in the type of airplane that the pilot seeks to operate under this alternative; and

(D) Within the preceding 12 months prior to the month of the flight, the pilot must have completed a training program that is approved under part 142 of this chapter. The approved training program must have required and the pilot must have performed, at least 6 takeoffs and 6 landings to a full stop as the sole manipulator of the controls in a flight simulator that is representative of a turbine-powered airplane that requires more than one pilot crewmember. The flight simulator's visual system must have been adjusted to represent the period beginning 1 hour after sunset and ending 1 hour before sunrise.

■ 36. Amend § 135.251 by revising paragraph (b) and adding paragraphs (c) and (d) to read as follows:

**§ 135.251 Testing for prohibited drugs.**

\* \* \* \* \*

(b) Except as provided in paragraph (c) of this section, no certificate holder or operator may use any contractor to perform a function listed in appendix I part 121 of this chapter unless that contractor tests each employee performing such a function for the certificate holder or operator in accordance with that appendix.

(c) If a certificate holder conducts an on-demand operation into an airport at which no maintenance providers are available that are subject to the requirements of appendix I to part 121 and emergency maintenance is required, the certificate holder may use persons not meeting the requirements of paragraph (b) of this section to provide such emergency maintenance under both of the following conditions:

(1) The certificate holder must give written notification of the emergency maintenance to the Drug Abatement Program Division, AAM-800, 800 Independence Avenue, Washington, DC, 20591, within 10 days after being provided same in accordance with this paragraph. A certificate holder must retain copies of all such written notifications for two years.

(2) The aircraft must be reinspected by maintenance personnel who meet the requirements of paragraph (b) of this section when the aircraft is next at an airport where such maintenance personnel are available.

(d) For purposes of this section, emergency maintenance means maintenance that—

- (1) Is not scheduled and
- (2) Is made necessary by an aircraft condition not discovered prior to the departure for that location.

■ 37. Amend § 135.255 by revising paragraph (b) and adding paragraphs (c) and (d) to read as follows:

**§ 135.255 Testing for alcohol.**

\* \* \* \* \*

(b) Except as provided in paragraph (c) of this section, no certificate holder or operator may use any person who meets the definition of "covered employee" in appendix J to part 121 of this chapter to perform a safety-sensitive function listed in that appendix unless such person is subject to testing for alcohol misuse in accordance with the provisions of appendix J.

(c) If a certificate holder conducts an on-demand operation into an airport at which no maintenance providers are available that are subject to the requirements of appendix J to part 121 of this chapter and emergency maintenance is required, the certificate holder may use persons not meeting the requirements of paragraph (b) of this section to provide such emergency maintenance under both of the following conditions:

(1) The certificate holder must give written notification of the emergency maintenance to the Drug Abatement Program Division, AAM-800, 800 Independence Avenue, Washington, DC, 20591, within 10 days after being provided same in accordance with this paragraph. A certificate holder must retain copies of all such written notifications for two years.

(2) The aircraft must be reinspected by maintenance personnel who meet the requirements of paragraph (b) of this section when the aircraft is next at an airport where such maintenance personnel are available.

(d) For purposes of this section, emergency maintenance means maintenance that—

- (1) Is not scheduled, and
- (2) Is made necessary by an aircraft condition not discovered prior to the departure for that location.

■ 38. Revise § 135.291 paragraph (b) to read as follows:

**§ 135.291 Applicability.**

\* \* \* \* \*

(b) Permits training center personnel authorized under part 142 of this chapter who meet the requirements of §§ 135.337 and 135.339 to conduct training, testing, and checking under contract or other arrangement to those

persons subject to the requirements of this subpart.

■ 39. Amend § 135.321 by revising paragraph (b)(7) to read as follows:

**§ 135.321 Applicability and terms used.**

\* \* \* \* \*

(b) \* \* \*  
 (7) *Training center.* An organization governed by the applicable requirements of part 142 of this chapter that conducts training, testing, and checking under contract or other arrangement to certificate holders subject to the requirements of this part.

\* \* \* \* \*

■ 40. Amend § 135.324 by revising paragraph (a) and the introductory text of paragraph (b) to read as follows:

**§ 135.324 Training program: Special rules.**

(a) Other than the certificate holder, only another certificate holder certificated under this part or a training center certificated under part 142 of this chapter is eligible under this subpart to conduct training, testing, and checking under contract or other arrangement to those persons subject to the requirements of this subpart.

(b) A certificate holder may contract with, or otherwise arrange to use the services of, a training center certificated under part 142 of this chapter to conduct training, testing, and checking required by this part only if the training center—

\* \* \* \* \*

■ 41. Amend § 135.385 by revising paragraph (b) and adding paragraph (f) to read as follows:

**§ 135.385 Large transport category airplanes: Turbine engine powered: Landing limitations: Destination airports.**

\* \* \* \* \*

(b) Except as provided in paragraph (c), (d), (e), or (f) of this section, no person operating a turbine engine powered large transport category airplane may take off that airplane unless its weight on arrival, allowing for normal consumption of fuel and oil in flight (in accordance with the landing distance in the Airplane Flight Manual for the elevation of the destination airport and the wind conditions expected there at the time of landing), would allow a full stop landing at the intended destination airport within 60 percent of the effective length of each runway described below from a point 50 feet above the intersection of the

obstruction clearance plane and the runway. For the purpose of determining the allowable landing weight at the destination airport the following is assumed:

\* \* \* \* \*

(f) An eligible on-demand operator may take off a turbine engine powered large transport category airplane on an on-demand flight if all of the following conditions exist:

(1) The operation is permitted by an approved Destination Airport Analysis in that person's operations manual.

(2) The airplane's weight on arrival, allowing for normal consumption of fuel and oil in flight (in accordance with the landing distance in the Airplane Flight Manual for the elevation of the destination airport and the wind conditions expected there at the time of landing), would allow a full stop landing at the intended destination airport within 80 percent of the effective length of each runway described below from a point 50 feet above the intersection of the obstruction clearance plane and the runway. For the purpose of determining the allowable landing weight at the destination airport, the following is assumed:

(i) The airplane is landed on the most favorable runway and in the most favorable direction, in still air.

(ii) The airplane is landed on the most suitable runway considering the probable wind velocity and direction and the ground handling characteristics of the airplane, and considering other conditions such as landing aids and terrain.

(3) The operation is authorized by operations specifications.

■ 42. Revise § 135.387 to read as follows:

**§ 135.387 Large transport category airplanes: Turbine engine powered: Landing limitations: Alternate airports.**

(a) Except as provided in paragraph (b) of this section, no person may select an airport as an alternate airport for a turbine engine powered large transport category airplane unless (based on the assumptions in § 135.385(b)) that airplane, at the weight expected at the time of arrival, can be brought to a full stop landing within 70 percent of the effective length of the runway for turbo-propeller-powered airplanes and 60 percent of the effective length of the runway for turbojet airplanes, from a point 50 feet above the intersection of

the obstruction clearance plane and the runway.

(b) Eligible on-demand operators may select an airport as an alternate airport for a turbine engine powered large transport category airplane if (based on the assumptions in § 135.385(f)) that airplane, at the weight expected at the time of arrival, can be brought to a full stop landing within 80 percent of the effective length of the runway from a point 50 feet above the intersection of the obstruction clearance plane and the runway.

**PART 142 —TRAINING CENTERS**

■ 43. The authority citation for part 142 continues to read as follows:

**Authority:** 49 U.S.C. 106(g), 40113, 40119, 44101, 44701–44703, 44705, 44707, 44709–44711, 45102–45103, 45301–45302.

■ 44. Amend § 142.1 by revising paragraph (a), republishing paragraph (b) introductory text, revising paragraphs (b)(1), (b)(4) and (b)(5), and adding paragraph (b)(6) as set forth below, and by removing paragraph (c):

**§ 142.1 Applicability.**

(a) This subpart prescribes the requirements governing the certification and operation of aviation training centers. Except as provided in paragraph (b) of this section, this part provides an alternative means to accomplish training required by parts 61, 63, 91, 121, 125, 127, 135, or 137 of this chapter.

(b) Certification under this part is not required for training that is—

(1) Approved under the provisions of parts 63, 91, 121, 127, 135, or 137 of this chapter;

\* \* \* \* \*

(4) Conducted by a part 121 certificate holder for another part 121 certificate holder;

(5) Conducted by a part 135 certificate holder for another part 135 certificate holder; or

(6) Conducted by a part 91 fractional ownership program manager for another part 91 fractional ownership program manager.

Issued in Washington, DC, on August 27, 2003.

**Marion C. Blakey,**  
*Administrator.*

[FR Doc. 03–23021 Filed 9–16–03; 8:45 am]

**BILLING CODE 4910-13-P**