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14 CFR Parts 61, et al.
Advanced Qualification Program; Final
Rule

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Parts 61, 63, 65, 108, 121, and 135

[Docket No. 25804, Amdt. Nos. 61-88, 108-8, 121-219, 135-37, SFAR-58]

RIN 2120 AC 85

Advanced Qualification Program

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This Special Federal Aviation Regulation (SFAR) establishes a voluntary, alternative method for the training, evaluation, certification, and qualification requirements of flight crewmembers, flight attendants, aircraft dispatchers, instructors, evaluators and other operations personnel subject to the training and qualification requirements of 14 CFR parts 121 and 135. The FAA has developed this alternative method in response to recommendations made by representatives from the government, airlines, aircrew professional organizations, and airline industry organizations. The SFAR is designed to improve aircrew performance and allows certificate holders that are subject to the training requirements of parts 121 and 135 to develop innovative training programs that incorporate the most recent advances in training methods and techniques.

EFFECTIVE DATE: October 2, 1990.

FOR FURTHER INFORMATION CONTACT: Mr. David Catey, Air Carrier Branch, Air Transportation Division, Flight Standards Service, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20581; telephone (202) 267-8094.

SUPPLEMENTARY INFORMATION:**Background**

On February 22, 1989, the FAA issued Notice of Proposed Rulemaking (NPRM) 89-4 (54 FR 7670). This notice proposed to establish a voluntary, alternative method for meeting the training, evaluation, certification, and qualification requirements for flight crewmembers, flight attendants, aircraft dispatchers, instructors, evaluators and other operations personnel subject to the training and qualification requirements of 14 CFR parts 121 and 135.

Statement of the Problem

14 CFR parts 61, 63, 65, 108, 121, and 135 contain the Federal Aviation

Regulations that regulate air carrier training programs and the training and qualification requirements, including applicable certification requirements, for pilots, flight instructors, check airmen and other evaluators, flight crewmembers other than pilots, aircraft dispatchers, and other operations personnel. The most detailed and rigorous training and qualification requirements are contained in subparts N and O of part 121. The last comprehensive changes to subparts N and O were made in Amendment 121-55 issued on December 22, 1969 (35 FR 84, January 3, 1970). Current requirements do not reflect recent advancements in aircraft technology or advancements in training methods and techniques. Certain regulations regarding training, checking, and testing of persons who conduct or support airline operations of advanced technology aircraft are becoming obsolete. The FAA has been accommodating air carrier training needs by issuing exemptions to current training program requirements.

Programmed hours (i.e., the hours of training prescribed in the regulation) in the current regulations are not conducive to the most efficient use of new training methods. In addition, current certification practical test requirements no longer provide for a complete evaluation of the knowledge and skills needed to operate certain new aircraft.

Of special importance is the consensus among industry and government that training should emphasize crew coordination and the management of crew resources. Traditionally, airline training and checking has been weighted toward the pilot in command (PIC) with less stringent requirements for the other crewmembers. This has led to training and checking of pilots on an individual basis, in an environment that is not crew-task oriented. Furthermore, flight crewmember training historically has focused on flying skills and systems knowledge while neglecting factors such as communication skills, coordination and decision making.

Evidence accumulated in the last decade suggests that a high percentage of air carrier incidents and accidents have been caused, at least in part, by a failure of the flightcrew to use readily available resources. National Aeronautics and Space Administration (NASA) studies which were performed over the last ten years indicate that more than 80% of fatal air carrier accidents were not directly related to mechanical failure or lack of pilot skills but rather to a breakdown in cockpit communication. These NASA studies

emphasize a deficiency in present recurrent training in skills related to human factors.

The name given to these skills is Cockpit Resource Management (CRM). CRM is generally understood to be the effective use of all resources available to the crew—hardware, software, and all persons involved in aircraft operation—to achieve safe and efficient flight operations. While some airlines have developed CRM programs, certainly not all who could benefit from such programs are doing so. Many who would like to incorporate such training need guidance in developing CRM programs.

In June of 1988, the National Transportation Safety Board (NTSB) issued a Safety Recommendation (A-88-71) on the subject of CRM training. The recommendation stemmed from an NTSB accident investigation of a Northwest Airlines crash on August 16, 1987, in which 148 passengers, 6 crewmembers, and 2 people on the ground were killed.

The NTSB noted that both pilots had received single-crewmember training during their last flight simulator training and proficiency checks and that the last CRM training they had received was 3.5 hours of ground school (general) CRM training in 1983. As a result of its investigation, the NTSB recommended that all part 121 carriers:

Review initial and recurrent flightcrew training programs to ensure that they include simulator or aircraft training exercises which involve cockpit resource management and active coordination of all crewmember trainees and which will permit evaluation of crew performance and adherence to those crew coordination procedures.

History

On August 27, 1987, the then FAA Administrator addressed the chief pilots and certain executives of numerous air carriers at a meeting held in Kansas City. One of the issues discussed at the meeting focused on flight crewmember performance issues. This meeting led to the creation of a Joint Government-Industry Task Force (Joint Task Force) on flight crew performance comprised of representatives from major air carriers and air carrier associations, flight crewmember associations, commuter air carriers and regional airline associations, and government organizations.

The major substantive recommendations to the Administrator from the Training Working Group of the Joint Task Force were the following: (1) Require part 135 commuters whose airplane operations require two pilots to

comply with part 121 training, checking, qualification, and recordkeeping requirements. (2) Provide for a Special Federal Aviation Regulation (SFAR) and Advisory Circular (AC) to permit development of innovative training programs. (3) Establish a National Air Carrier Training Program Office to provide training program oversight at the national level. (4) Require seconds in command (SICs) to satisfactorily perform their duties under the supervision of check airmen during operating experience. (5) Require all training to be accomplished through a certificate holder's training program. (6) Provide for approval of training programs based on course content and training aids rather than using specific programmed hours. (7) Require Cockpit Resource Management (CRM) training and encourage greater use of Line-Oriented Flight Training (LOFT).

In response to the Joint Task Force recommendation to provide for an SFAR and AC to permit development of innovative training programs, the FAA issued a draft AC and a Notice of Proposed Rulemaking (54 FR 7870, February 22, 1989). The proposed SFAR and AC provided for a voluntary, alternative method for meeting the training, evaluation, certification, and qualification requirements in parts 61, 63, 65, 121, and 135. This voluntary, alternative method is called an "Advanced Qualification Program" (AQP). In effect, the proposed and final SFAR would allow a certificate holder to establish an AQP with training curriculums that depart from current requirements and that take advantage of the most advanced training techniques as long as its AQP meets the SFAR requirements and provides at least an equivalent means of compliance with current regulations in all categories of training and in all subject categories (e.g., windshear and emergency training). Because an approved AQP will build on the present system, it will be as safe as or an improvement on the safety level of the current system. The FAA considered all comments on the proposed SFAR and AC in developing this final rule and the accompanying AC.

Related Advisory Circulars

In addition to the AQP AC developed as part of this rulemaking a number of other Advisory Circulars are relevant and are referred to throughout this document. They are:

AC 120-51 Cockpit Resource Management Training.

AC 120-35A Line Operational Simulations.

AC 120-40 Airplane Simulator Qualification.

AC 120-45 Airplane Flight Training Devices Qualification.

Reorganization of Final Rule

As proposed, section 3 of the SFAR contained almost one-third of the text. For ease of usage, this text is dealt with in sections 3 through 6 of the final rule. Throughout the following discussion of comments, the proposed rule section is referred to when describing comments and the final rule section is referred to where appropriate.

Discussion of Comments

General

Twenty-six persons or organizations submitted comments on the proposed SFAR and the AC. Many submitted multiple comments. Comments were submitted by air carriers, air carrier associations, crewmember associations, commuter and regional airline associations, pilot training centers, equipment manufacturers, and individuals.

Virtually all of the commenters commend the FAA for taking rulemaking action that would allow for innovation in training and encourage CRM training. Most of the commenters raise specific concerns about the proposed SFAR and the draft AC. A discussion of the issues raised by commenters follows.

Task Force Recommendations

The preamble to the proposed SFAR stated that the Joint Task Force recommendations were separated into those that should be incorporated in an SFAR and those that would be incorporated in subsequent rulemaking actions. Five commenters state that the Joint Task Force recommendations were meant to be taken as a whole.

Response: The preamble statement was incorrect. The FAA chose to proceed immediately with the SFAR because the agency lacks the resources to implement all of the Joint Task Force recommendations at once. Also, information obtained from the voluntary programs implemented under the SFAR would be of value to the agency in determining the need for future changes to parts 121 and 135. The FAA will proceed with the other recommendations as resources permit.

Inclusion of Hazardous Materials and Security Training

The preamble to the proposed SFAR stated that, to avoid duplication of effort, an AQP would not be applicable to the training requirements in two specific areas, security training for

crewmembers under 14 CFR 108.23 and 121.417(b)(3)(v) and 135.331(b)(3)(v) and hazardous materials training under 121.433a and 135.333. Regarding security training, the FAA stated that efforts were underway to provide an alternative training method similar to the methods proposed under the SFAR. Regarding hazardous materials training, the FAA stated that current requirements already reflected the content-based approach proposed in the SFAR for other training.

Seventeen commenters object to the exclusion of hazardous materials and security training from an AQP. Commenters state that, since current requirements regarding hazardous material and security training require a 12-calendar month cycle, if these areas of training are not included in the rule, far less economic incentive exists to establish an AQP. As one commenter states, an important feature of the SFAR is that higher quality training and appropriate safeguards will allow an increase in the time interval between training sessions beyond the 12-calendar month recurrent training currently required in these two areas. Therefore, if these areas of training are not covered under an AQP, 12-calendar month recurrent training in these areas would remain mandatory and destroy the flexibility and economic incentive for an AQP.

Response: The FAA has reconsidered the proposed exclusion and agrees with the commenters. Hazardous materials and security training will be included under an AQP. Section 208.23(b) concerning security training has been revised to allow for this. The AQP AC has been amended accordingly.

Section 108.23(b) has also been revised to allow flexibility for security training that is conducted under 121.417 or 135.331. Whenever a crewmember who is required to take recurrent security training completes the training in the calendar month before or the calendar month after the calendar month in which that training is required, he is considered to have completed the training in the calendar month in which it was required. This amendment is not related to AQP which otherwise provides the same flexibility for recurrent training. This amendment is being included to allow certificate holders the same flexibility in scheduling recurrent security training as they now have in scheduling other recurrent training under current 121.417 and 135.33.

Planned Hours

Proposed section 3(b)(1) stated that a qualification curriculum must include "planned hours of ground instruction, flight instruction . . . and evaluation." The planned hours would replace programmed hour requirements in part 121 subpart N and, thereby, provide more flexibility while maintaining a concept of appropriate training time needed to cover specific areas of training.

Five comments were received on this subject. One commenter questions whether the term "planned hours" refers only to ground instruction or also to flight instruction. One commenter states that programmed hours should be required to guarantee a minimum level of training. Two commenters state that hourly requirements should not exist and that all training should be objective based. One commenter states that at least planned hours should be required.

Two comments were also received on a related issue. Paragraph 71 of the draft AQP AC states that if an individual is evaluated and does not pass, the individual must complete the planned hours of the curriculum. According to the comments, this appears to be a penalty rather than an effort to train to proficiency.

Response: The "planned hours" in proposed section 3(b)(1) (final rule section 5(a)) refers to both ground training and flight training. The AQP must state how many hours are planned for each type of training; however, in both cases, the training is objective based and, therefore, the number of hours needed for a particular student is flexible—it may take more or fewer hours than what is planned for that curriculum. Ground training continues until the student can show that he or she has mastered the material. Similarly, flight training continues until the student can show that he or she has progressed successfully through the curriculum and demonstrates proficiency in the knowledge and skills needed to serve in a specific crew position for a specific make, model, and series aircraft (or variant). The AQP AC has been rewritten to clarify the requirement.

In response to the related comment on paragraph 71 of the draft AC, the FAA has changed the AQP AC language (paragraph 38(h)) to remove the apparent penalty. If an individual fails a proficiency evaluation, that individual should complete additional training as needed before being administered another proficiency evaluation.

Crew and Aircraft Curriculum Requirements

The proposed SFAR would require that each AQP curriculum specify the make, model, and series aircraft (or variant) and each crewmember position or other position to be covered by the curriculum. Positions to be covered include all flight crewmember positions, instructors, and evaluators, and may include other positions, such as flight attendants, aircraft dispatchers, and other operations personnel.

Nine comments pertain to this requirement. Several commenters state that fleet specific curriculums should not apply to flight attendants and aircraft dispatchers. Several commenters state that differences between variants of a make, model, and series aircraft should be handled by a different curriculum rather than having each curriculum specific to a variant as appropriate. One commenter states that only pilot crewmembers should be included in mandatory participation, and flight engineers should be excluded, since flight engineer training events and devices are different from those for pilots. One commenter states that eliminating traditional categories of training (initial, transition, etc.) will require the same training regardless of previous experience. One commenter requests that flight attendants be included in AQPs as soon as possible. Another requests that an AQP be allowed to cover only flight attendants or aircraft dispatchers.

A related comment concerns elimination of aircraft "groups" in the AQP. This comment states that the "group" concept is still applicable to portions of the AQP AC that refer to specific category/class and powerplants.

Response: The requirement that an AQP curriculum is specific to make, model, series aircraft (or variant) and to duty positions of crewmembers is retained in the final rule as is the provision that it may apply to flight attendants, aircraft dispatchers, and other operations personnel. The curriculum must apply to all flight crewmembers, including flight engineers, in order to incorporate CRM training effectively. It could not apply only to aircraft dispatchers and flight attendants, since a main purpose of an AQP is to develop training programs that emphasize crew coordination. While the FAA agrees with comments regarding the importance of including flight attendants and aircraft dispatchers in an AQP and encourages certificate holders to do so, it is requiring that an AQP apply to flight

crewmembers since CRM training, or flight crewmembers is the most urgent need. Furthermore, the studies and research being done in CRM have focused primarily on cockpit communications and coordination.

All qualification and continuing qualification curriculums must be aircraft specific because of differences among make, model, and series aircraft (or variant). These differences apply to flight attendants and aircraft dispatchers as well as to flight crewmembers. An AQP establishes proficiency objectives that are aircraft and duty position specific. A certificate holder would be required to establish a separate curriculum for a variant of a make, model, or series aircraft if the FAA determines that knowledge or skills required for safe operation are significantly different and, therefore, require a certificate holder to provide additional training or other qualifications for crewmembers and dispatchers who operate the variant aircraft. For example, if an individual moves from one aircraft to another, to a variant design configuration of an aircraft make, model, and series, or from one crewmember position to another, that individual would be subject to the qualification requirements of the specific curriculum. However, an individual would not be required to repeat any common requirements of curriculums in which he or she has already achieved proficiency. The AQP would allow the certificate holder to select from a curriculum those modules for which the individual must achieve proficiency to be qualified under a specific curriculum. Hence, the concept of an aircraft- and duty position-specific curriculum incorporates traditional differences and transition training. The AQP does not require redundant training where proficiency has already been achieved.

The FAA's purpose as stated in the preamble to the proposed SFAR is to eliminate all references to aircraft groups as defined in § 121.400. The AC contains no such references.

Frequency of Training

The proposed SFAR in Section 3(c)(1) would require continuing qualification curriculums which must include a continuing qualification cycle with, initially, a 26-calendar month limit. During this continuing qualification cycle, each person qualified under an AQP must receive a balanced mix of training and evaluation in all events and subjects that were required for original qualification. The continuing qualification cycle duration may be

extended by approval of the Administrator in 39-calendar month increments to a maximum cycle of 39 calendar months.

Under the proposal, each continuing qualification cycle must include recurring training sessions at a training facility for each person qualified under an AQP. The frequency of the sessions must be approved by the Administrator. Initially, the frequency could not exceed 13 months. Thereafter, upon demonstration that an extension is warranted, the Administrator could approve an extension in 3-month increments to a maximum of 26 months.

Seventeen comments were received on these proposed requirements, specifically on (1) the interval between recurring training sessions; (2) the overall duration for a continuing qualification cycle; and (3) the maximum 3-calendar month increments by which the intervals between recurring training sessions and the duration of continuing qualification cycles could be extended.

- Several commenters object to the 3-calendar month increment limit on extensions, stating that 6 calendar months would be more reasonable given the effort required to prove that an extension is warranted. Some commenters want no limit on increments for extending the intervals between recurring training sessions and the duration of continuing qualification cycles.

- Some commenters want no limits on continuing qualification cycles or the intervals between training sessions. They prefer that recurrent training be based solely on maintaining proficiency as evaluations indicate a need.

- Some commenters maintain that the 3-calendar month increment was too conservative since carriers have obtained exemptions that extended recurrent qualification steps by 6 calendar months, without any degradation in safety.

- Several commenters, including pilot and flight engineer associations, object to extending recurrent qualification limits.

- Several commenters are concerned that justifying an extension might be hard to do. These commenters are uncertain how they would show no loss of knowledge or skills. Other commenters question how air carriers could demonstrate no degradation in safety. One commenter believes that the FAA should eliminate extension provisions from the SFAR until the FAA has established rigid criteria for approving extensions.

- Specific issues concerning continuing qualification are (1) whether the requirements for recurrent training

at a facility preclude home study; (2) whether new hires and new aircraft would be treated more restrictively; and (3) whether the language in proposed § 3(c)(1) should be changed from "the frequency of these recurring sessions" to "the intervals between recurring sessions."

Response: With a minor exception, the final rule retains the continuing qualification cycle duration as proposed. None of the comments raise significant issues that would warrant changes to the proposed requirements. The initial maximum limit on the duration of intervals between recurring training sessions is basically the minimum requirement in part 121 and part 135 now, including the exemptions issued for PIC proficiency checks.

However, the rule language and the AQP AC have been revised to clarify the relationship of the duration of the continuing qualification cycle and the maximum duration of the interval allowed between training sessions.

The final rule (Section 6(b)(1)) states that each continuing qualification cycle must include at least one evaluation period. During an evaluation period each person qualified under an AQP must receive at least one training session at a training facility. Also, each person qualified under an AQP must complete a proficiency evaluation as required under SFAR Section 6(b)(3), and each PIC must complete an online evaluation as required under SFAR Section 6(b)(3). An individual's proficiency evaluation may be accomplished over several training sessions if a certificate holder provides more than one training session in an evaluation period.

Section 6(c) states the duration of a continuing qualification cycle and evaluation period. Initially, a continuing qualification cycle may not exceed 26 calendar months, and the evaluation period may not exceed 13 calendar months. Increments for extending the duration and maximum limits remain as proposed.

The AQP AC has also been revised to be consistent with the SFAR and to provide guidance in structuring a continuing qualification curriculum in the interest of efficiency and safety. In accordance with the methodology for curriculum development recommended in the AQP AC, proficiency objectives to be evaluated during a cycle may be divided between critical and non-critical proficiency objectives. All critical proficiency objectives, as approved by the Administrator, would have to be evaluated within an evaluation period, while non-critical proficiency objectives could be evaluated periodically over the

longer duration of the continuing qualification cycle. While this level of detail is not specified in the rule, the rule language allows for more efficient structuring of evaluation curriculum segments.

The purpose of a continuing qualification cycle is to provide flexibility with reasonable time limits. If either an evaluation period or a continuing qualification cycle is extended by 3 calendar months with approval by the Administrator, and proficiency evaluations thereafter indicate no loss of proficiency, then the extension is more efficient without any degradation in safety. If there is a loss of proficiency, then the certificate holder would resume its previous frequency for recurrent training and proficiency evaluation.

Concerns of commenters regarding justification for extension of an evaluation period or continuing qualification cycle are unfounded. Rigid criteria for approval of an extension are not necessary, since analysis of data collected from training and from evaluations required by the SFAR will provide continuous monitoring of the proficiency of the persons being trained and evaluated. No extensions will be approved unless collected data supports justifying an extension. The FAA considers the 3-month limit on extensions appropriate for careful monitoring of the effect of an extension on proficiency. Since an applicant will be continuously collecting proficiency data, the 3-month limit does not impose an unreasonable burden.

In response to specific comments: (1) The requirements for training under a continuing qualification curriculum do not preclude home study as long as home study has been approved as part of an AQP curriculum; (2) new hires and new aircraft would be treated more restrictively as indicated in the AQP AC, since neither the certificate holder nor the FAA in such cases would have a valid basis to justify extending evaluation periods or continuing qualification cycles; (3) the concept of evaluation periods corrects the terminology problem in "frequency of recurring sessions."

Data Collection and Recordkeeping

Proposed SFAR Section 4(c) would require that each qualification and continuing qualification curriculum include data collection procedures. Data collected from crewmembers, instructors, and evaluators will enable the FAA to determine whether the training and evaluations accomplish the overall objectives of the curriculum.

Acceptable guidelines for data collection are set forth in the AC. Proposed Section 9 would require that an applicant for an AQP establish and maintain records in sufficient detail to establish the training, qualification, and certification of each person qualified under an AQP. The AC specifies acceptable guidelines for establishing and maintaining such individual records.

As proposed and in the final rule, data collection and recordkeeping are two separate functions. The data submitted to the FAA for analysis and validation must be submitted without names or other elements that would identify an individual or group of individuals. This data will be analyzed by the FAA to monitor the effectiveness of AQP training, to determine the validity of requests for extensions of training intervals and cycles, and to monitor the effectiveness of CRM training. Individual recordkeeping by certificate holders is needed to show whether or not each crewmember, aircraft dispatcher, or other operations personnel complies with the applicable requirements of the FAR and this SFAR; e.g., qualification training, qualifications, required physical examinations, flight and duty time records, and frequency of training and evaluation.

Twelve comments were received on data collection and recordkeeping. Generally these comments show concern that the burden of data collection and recordkeeping might offset any advantages of participating in an AQP.

Response: There can be no AQP without data collection and without records on individual crewmembers, aircraft dispatchers, and other operations personnel. The FAA can only evaluate the validity of a certificate holder's AQP through the collection of data. The certificate holder must collect the data and make that data accessible, without identifying individuals, to the FAA's Air Carrier Training Branch for analysis and evaluation. The individual crewmember, aircraft dispatcher, and the other operations personnel records are to be maintained by a certificate holder, because without them there would be no record of these persons' qualifications and continuing qualifications. Thus, the requirement for individual records that must be maintained under an AQP remains the same as under present § 121.683.

The data collection requirements and recordkeeping requirements (final rule Sections 7(c) and 12) are the same as those proposed; however, the AC (Chapter 9) has been rewritten in light of specific comments to clarify the overall

program validation purpose of data collection and recordkeeping functions and to establish an acceptable approach for meeting the requirements. The AC provides guidance for validation of an AQP through approval and documentation of activities throughout the development, implementation, and continuing operation of an AQP; FAA analysis and evaluation of anonymous performance/proficiency data collected by the applicant; and establishment and maintenance of individual qualification records.

Specific comments relating to data collection and recordkeeping requirements and FAA responses are as follows:

• *Comment:* Data may be used in a punitive way against an airman.

Response: The data submitted to the FAA for analysis must not be traceable to an individual. This point has been clarified in the AC.

• *Comment:* Once a program has been validated, data should be destroyed.

Response: The FAA is not requiring that data be destroyed after validation. Since the data is not identified by individual, destruction of it after some point would be a matter of efficiency, and does not need to be regulated.

• *Comment:* Data collection requirements should provide a method for a trainee (and instructor) to show to the approving authority his or her perception of the effectiveness of an AQP. *Response:* The FAA agrees that this would be worthwhile. A certificate holder may use an anonymous questionnaire to accomplish this. The FAA is not specifically requiring this feedback method because it is only one of many methods for evaluating a program.

• *Comment:* It may be impossible to show by data collection and analysis that an AQP curriculum maintains or exceeds past levels of crewmember competency. *Response:* The FAA recognizes that raw data alone may not indicate clearly whether an AQP curriculum maintains or exceeds past levels of crew competency. However, the FAA believes that, when analyzed, the data collected by the certificate holder will indicate trends and will provide the basis for making necessary judgments about the effectiveness of an AQP program.

• *Comment:* Once a program is validated, the data requirements should be reviewed to determine if continued collection is needed. *Response:* The FAA agrees and will do so.

• *Comment:* Duplication of recordkeeping will occur if the training center and certificate holder are both required to maintain records on airmen.

Response: The certificate holder is responsible for ensuring that adequate records will be established and maintained. The training center could be authorized to maintain such records under the supervision of the certificate holder. Thus, duplicate records are not required.

• *Comment:* Certificate holders should not be required to keep records on training center airmen. *Response:* Neither the SFAR nor the AC requires them to do so.

• *Comment:* Certificate holders who have an approved computerized recordkeeping system under part 121 should not be required to establish a separate system. *Response:* The FAA will not automatically approve any particular computerized systems under the SFAR. However, the FAA will accept automated systems provided they adequately follow AQP AC guidelines. In some cases this may require enhancement of an existing system.

• *Comment:* The FAA should state why present basic records are not sufficient. *Response:* Present basic recordkeeping requirements are not based on proficiency training and evaluation within a continuing qualification cycle. Therefore, some changes are needed. However, the AQP recordkeeping requirements are fundamentally the same as the present requirements.

• *Comment:* Only training records should be maintained, not flight time records. *Response:* The specific reference to flight time records has been deleted from the AC (paragraph 182) since a certificate holder may choose to keep flight time records in another system while maintaining currency records in the AQP recordkeeping system. Records that pertain to qualification and continuing qualification must be maintained. This includes currency records, since currency is part of continuing qualification. Flight time records are currently required in accordance with §§ 121.683 and 135.63. The AQP SFAR recordkeeping requirements do not establish new requirements for a separate recordkeeping system for certificate holders who conduct both training and qualification in accordance with the requirements of part 121 or part 135 and the requirements of the AQP SFAR. However, in such cases a certificate holder may elect to maintain a separate recordkeeping system. With respect to flight time records, regardless of whether or not a certificate holder elects to conduct its crewmember training and qualification under an AQP

or under typical part 121 or part 135 training programs, it must maintain flight time records for applicable crewmembers in sufficient detail to show compliance with the applicable FAR.

• *Comment:* In the AQP AC, the record requirements mix personnel and scheduling records with training records. *Response:* The FAA does not agree that AQP AC does this. The AQP AC provides guidance for one means of compliance with AQP SFAR requirements and related FAR requirements. A certificate holder may develop an alternative means of compliance if it can show that the alternative means of compliance is equivalent to that described in published advisory material.

• *Comment:* The requirement in the draft AC that records for individuals who qualify under an AQP be maintained for 36 calendar months is too restrictive. *Response:* The AQP SFAR recordkeeping requirements do not provide for a particular retention period for these persons' individual records. Section 12 of this SFAR states, in pertinent part, that each certificate holder shall show that it will establish and maintain records in sufficient detail to establish the training, qualification and certification of each person qualified under an AQP. In addition, the AQP AC does not provide for a particular retention period for these records. The AQP AC merely provides guidance to certificate holders on how to document in these persons' individual records that they are qualified under an AQP. The 36 calendar-month records retention period in the AQP AC is merely a guideline. However, it should be noted that certificate holders who elect not to retain detailed individual records may lose some of the flexibility and efficiency that AQPs are capable of providing.

• *Comment:* Draft AQP AC paragraph 116(2) should indicate that the format of an AQP record will differ from the record of an airman who qualified for a position under a subpart N training program. *Response:* There is no reason to mention format differences in the AC. The guidance paragraph in question states only that records should "show the result and completion date of other training and qualification that permitted an individual to advance to his current assignment." (Paragraph 184(c) of final AC.) The format of these other records may or may not differ from AQP records format.

CRM

Section 4(b) of the proposed SFAR (final rule section 7(b)) states that "each

curriculum must include training and evaluations" in CRM skills. Fourteen of the comments address the subject of CRM, and while none of these commenters objects to the inclusion of CRM in an AQP, most raise questions concerning the specifics of CRM training. Five commenters object to the requirement for evaluation of CRM training. These commenters maintain that objective criteria for evaluating CRM have not been established and further that CRM training is most effective in changing behavior when it is not evaluated.

Response: FAA has stated in the accompanying AQP AC nine elements that are appropriate in a CRM session. Initially, a participant in a CRM session would not be subject to a pass/fail decision. However, once data have been collected to validate the effectiveness of CRM training sessions, the FAA believes that objective criteria for evaluation can be developed. After that objective criteria is established, it will become part of qualification and continuing qualification curriculums. An evaluation of a CRM session will result in feedback to each participant and, as appropriate, additional individual or group training will be required.

One commenter provides suggestions concerning the availability of specific participant records and suggests several techniques that could be used to achieve maximum protection of individuals.

Response: While initially there will be no evidence in a person's file that could be interpreted as a failure of a CRM session, an individual's record would reflect that additional training in particular areas was considered necessary as a result of a CRM evaluation. However, once the FAA has developed objective criteria for evaluating CRM performance of an individual, the criteria will be used in determining whether an individual is qualified, including certification, and meets continuing qualification requirements. Thus, when CRM objective criteria are fully implemented, it will be possible for an individual to fail a CRM session.

Several of the commenters that generally support the inclusion of CRM training in each AQP suggest the need for regular renewal of CRM scenarios, and the need to make CRM a general requirement beyond the SFAR. Those commenters also suggest using the highest level of flight simulator for Line Operational Simulations and giving instructors and evaluators additional training in teaching and evaluating CRM and Line Operational Simulations.

Response: Imposing CRM as a general requirement would be beyond the scope

of this rulemaking. While other suggestions are valid, the FAA does not agree that specific additional requirements should be added to the SFAR. The FAA expects that as certificate holders gain more experience in conducting CRM training, some of these suggestions may be incorporated into FAA advisory material.

PIC Online Evaluation

Proposed section 3(c)(4)(ii) states in part that for a PIC, "An online evaluation in an aircraft must be completed within 30 days of either side of the midpoint between recurring training sessions."

Nine comments were received on this proposed requirement. Most suggest that the provision for flexibility be based on the "calendar month before/calendar month after" concept now used generally in the FARs, since this provides greater flexibility and is easier to track under the systems already in use by most certificate holders. Several commenters also state that, as written, the proposal could require more frequent checks than under the present rules, since it requires an online evaluation at the midpoint between recurring training sessions.

Response: The FAA agrees that the "calendar month before/calendar month after" concept in the present rules could effectively be used here, and this section of the SFAR (section 8(b)(3)(ii)(A)) has been changed accordingly. This section has also been revised to clarify the FAA's intent that an online evaluation must occur at or near the midpoint of a PIC's evaluation period.

One commenter questions whether the FAA intends this requirement to replace the traditional line check requirement.

Response: The FAA's intent is that the required online evaluation would replace the line check. Because persons other than the PIC would be evaluated at the same time, the SFAR requirement is actually broader than the traditional line check.

A related issue raised by four commenters concerns section 3(c)(4)(iii), which proposed to require that during a PIC online evaluation, the second in command and flight engineer also must be evaluated. Commenters question (1) what criteria would apply to the flight engineer and SIC evaluations; (2) whether this is a new requirement; and (3) whether the evaluator would have to have a flight engineer rating in order to evaluate the flight engineer.

Response: This is a new requirement. Section 5(b)(3) of the SFAR states that evaluators must have appropriate training and evaluation to qualify a

person to evaluate on a particular make, model, and series aircraft (or variant). AC paragraph 40(c)(3)(ii), as clarified, states that "an evaluator for an online evaluation will hold the airman certificates and ratings for all individual positions being evaluated." The specific criteria for evaluating these other crew positions during the PIC online evaluation are not provided in the AC. This criteria will be developed by the certificate holder for FAA approval as part of the continuing qualification curriculum.

Certification under an AQP

Two commenters object to the limitation stated in the preamble that initially certification under proposed SFAR section 5 would be limited to pilots who hold a commercial pilot certificate with an instrument rating. One commenter states that it understood that the SFAR would also include certification for flight engineers and aircraft dispatchers.

Response: The rule language is not limited as assumed by the commenters. The preamble language referred to by these commenters states that initially certification under an AQP will be "limited to pilots who hold a commercial pilot certificate with an instrument rating, because the FAA has not yet developed appropriate criteria to serve as a basis for obtaining a commercial pilot certificate." However, the preamble further states that, until these criteria are developed, the FAA will review any certificate holder's request for commercial pilot certification under an AQP on a case-by-case basis. The FAA will also treat requests for flight engineer and aircraft dispatcher certification under an AQP on a case by case basis.

Proposed section 5(a) allows a person enrolled in an AQP to receive the required certificates or ratings under an AQP if certain requirements are met. One requirement is that "training and evaluation of required maneuvers and procedures under the AQP must meet minimum certification and rating criteria established by the Administrator * * *

Five commenters thought that the criteria should be established by the certificate holder and approved by the Administrator.

Response: The language of § 8 of the final rule has been changed from required maneuvers and procedures "to knowledge and skills." The revised language is more appropriate since the regulation also applies to flight engineers and aircraft dispatchers. Also section 8(a) has been clarified to show that the applicant for certification must meet minimum certification and rating

criteria in parts 61, 63, and 65. The Administrator may accept substitutes for the practical test requirements of those parts, as applicable. Guidelines for developing substitutes for the practical test are set forth in chapter 4 of the AC. The operator should show that substitute practical tests provide individual proficiency equivalent to or greater than that provided by the practical tests described in parts 61, 63, and 65 of the FAR.

One commenter expresses concern that the AQP would allow a flight engineer applicant who is the holder of a commercial pilot certificate with an instrument rating to satisfy the aeronautical experience or skill requirements of part 63 under an AQP and thereby reduce the requirements for a Flight Engineer certificate.

Response: The concern expressed is not valid; any certifications that occur under an AQP will meet the aeronautical experience requirements of part 63 and performance standards equivalent to or greater than existing standards, thus ensuring that there is no reduction in safety.

Flight Simulators and Flight Training Devices

Proposed section 6 stated that a person who wishes to use a flight training device or flight simulator must request that the Administrator evaluate the flight training device or flight simulator to assign a qualification level to it. Each flight training device or flight simulator to be used in an AQP must be evaluated for a certain qualification level and also approved for its intended use in a specified AQP. Furthermore, each flight simulator or flight training device must be part of a flight simulator or flight training device continuing qualification program. Specific guidelines for flight simulator and flight training device evaluation, approval, and continued qualification are set forth in the AQP AC.

Ten commenters address the issue of flight simulators and flight training devices. Only one commenter is in favor of the requirement as proposed.

Certificate holders who commented are concerned that the draft AQP AC and the proposed SFAR would mandate more restrictive flight simulator requirements than those currently in effect. In general, these commenters express confusion about the FAA's intention, particularly since the preamble to the proposed SFAR states that the advisory material on approval and evaluation of flight simulators and flight training devices will appear either in the AQP AC or in ACs being developed by the FAA. The draft AQP

AC lists as guidelines for evaluation AC 120-40 and AC 120-45. One commenter requests that since the AQP AC references the other ACs, drafts of the others should be published for public review. Commenters also raise technical questions referring to specific portions of the draft AQP AC.

Response: To clarify the FAA's intention, the final rule and the AC have been changed. Section 9 of the rule differentiates between: (1) Flight training devices and flight simulators that will be used in an AQP for: (a) Evaluation, (b) training sessions that assess whether an individual is ready for evaluation, (c) meeting currency requirements, or (d) Line Operational Simulations (LOS); and (2) training devices that are used for other than the purposes listed in (1) above.

Flight training devices and flight simulators to be used for any of the listed purposes must be evaluated by the Administrator and assigned a qualification level in accordance with the criteria set forth in AC 120-40, as amended, and AC 120-45, as amended.

Under these procedures, the FAA's National Simulator Program Manager (NSPM) will evaluate and, if warranted, recommend approval of a flight simulator or flight training device for a specific level of simulation. The recommendation will be submitted to the Air Carrier Training Branch for appropriate action. Final approval will include the level of simulation, the flight training maneuvers and procedures allowed for airman certification (training, currency, and evaluation), and the specific AQP in which it can be used. Levels of simulation that are hybrids of two levels contained in ACs 120-40 and 120-45 will be considered. All flight training devices and flight simulators that have been qualified and approved for a certificate holder's specific AQP use must also be part of, and maintained under, the certificate holder's continuing qualification program.

Training devices to be used in an AQP for other than the listed purposes must be approved by the Administrator. An applicant for approval of such a training device must identify the device by its nomenclature and describe how it would be used. If the device and its use are approved, the device must be part of a continuing program to provide for its serviceability and fitness to perform its intended functions as approved by the Administrator.

These training equipment requirements are for the most part a continuation of present policy on flight training devices and flight simulators.

Training devices and simulators currently qualified as flight training devices and flight simulators by the FAA may be used in approved AQPs at their current qualification level without completing an additional qualification evaluation.

The FAA does not consider the inclusion of detailed charts in the AQP AC as a limiting factor on the overall process. An applicant can assume that, for the listed maneuvers and procedures, the FAA has indicated a range of classification levels for flight training devices or flight simulators that is acceptable. However, as set forth in the AQP AC, an applicant continues to have the option of requesting approval of alternatives, whether or not these alternatives are within the range set forth in the AQP AC charts.

Incentive to Participate

Several commenters point out that since participation in an AQP is voluntary, certificate holders will participate only if opportunity for innovation is allowed. These commenters are concerned that the proposed SFAR and AQP AC are too structured. One commenter stresses the need for clarity in the regulations; another expresses a concern that excessive data collection requirements would discourage participation.

Response: The FAA agrees with the need for clarity in this, as in all of its regulations and has tried to simplify and clarify this final rule whenever possible. Similarly, the FAA has required, and will continue to require, as little paperwork, recordkeeping, and data collection as possible. However, since the ultimate success of the AQP concept will depend on the success achieved by those who sign up initially, the FAA will need data adequate to validate individual programs and the overall concept.

The FAA recognizes that the details contained in the draft AQP AC may have caused some commenters to conclude that AQP is highly structured and therefore might not allow for as much innovation as they envisioned. However, a certain amount of detail in the AC is imperative to provide eligible certificate holders with an opportunity to participate. The AC recommends methods and procedures at a level of detail enabling successful implementation. This does not prohibit some certificate holders from designing their own program in ways that depart from the acceptable methods and procedures contained in the AQP AC. The FAA can approve such a program as long as the applicant can show that the proposed AQP is consistent with the

AQP SFAR requirements and that any deviation from the guidance contained in the AQP AC is acceptable.

The AC has been revised to provide more detailed guidance for an acceptable AQP development and maintenance methodology that will allow for innovation through systematic development and approval of an AQP.

Training Centers

Proposed SFAR section 8 and chapter 9 of the draft AQP AC establish requirements and acceptable standards for a certificate holder who uses a training center to conduct any of its AQP training, and requirements and acceptable standards by which a training center may obtain provisional approval of an AQP curriculum. Several commenters identify concerns with the proposed SFAR and AQP AC on this subject.

- One concern is that under the proposed SFAR only a certificate holder is eligible to obtain approval of an AQP, and many training centers are not certificate holders. One commenter requests that all references to a certificate holder throughout the SFAR include the additional words "or a training center that qualifies under this SFAR."

- One commenter states that the requirements in proposed section 8 (a) and (b) are basically directed at certificate holders, not training centers. Training centers that are not certificate holders need a prescribed method of training and qualifying airmen. Neither the existing regulations nor the proposed SFAR addresses this issue. Qualifying airmen employed by a training center by the same methods required for certificate holder airmen is not workable.

- According to one commenter, a non-certificate holder training center should be eligible for obtaining approval of extensions of its continuing qualification cycle. The proposed SFAR language limits extensions to certificate holders.

- One commenter thinks that qualifying training centers should be authorized to give AQP training only if the training is identified with a specific part 121 or part 135 certificate holder. Training in the certificate holder's AQP should be required for instructors and evaluators employed by the training center. Also a certificate holder should be required to provide differences training for any differences between a training center's training equipment and the certificate holder's.

- One commenter expresses concern that since the proposed SFAR restricts eligibility of certificate holders who operate under part 135 to those who are

required to have an approved training program under § 135.341, all single-pilot certificate holders would be prevented from using an AQP. While such a certificate holder would probably not develop its own AQP, it might want to use a training center's AQP curriculum for a particular aircraft.

Response: Eligibility for an AQP is targeted to certificate holders who are required to have an approved training program under § 121.401 or § 135.341. Under Section 11(a) of the SFAR a certificate holder may arrange to have AQP training, qualification, or evaluation performed by a training center if the training center's curriculum (segments and portions of segments) have been provisionally approved by the Administrator. The final rule makes clear that a training center may obtain provisional approval either independently or in conjunction with a certificate holder that is applying for an AQP.

A training center must apply for provisional approval and must show that it has: (1) A curriculum for qualification and continuing qualification for each instructor or evaluator employed by the training center; (2) adequate facilities for any planned training; (3) curriculums (segments or portions of) specific to make, model, and series aircraft (or variant), and specific to crewmembers or other positions. (Section 11(b)(1), (2), and (3)).

Once a training center's curriculum (segment or portion) has been provisionally approved, it must be tailored to a certificate holder's specific needs before it is eligible for approval as a certificate holder's AQP curriculum. (Section 11(a)(2)).

A training center is limited to provisional approval of a curriculum. The qualification and continuing qualification curriculum it develops for its instructors and evaluators must be approved and must provide instructor and evaluator qualifications for AQP training and evaluator duties but will not be considered an AQP curriculum. However, approval of instructor and evaluator curriculums will allow a training center to develop curriculums according to the AC guidelines and to utilize the AQP qualification and continuing qualification concepts. To clarify that AC guidance applies to training centers as well as certificate holders, the AC material now addresses, where appropriate, the "applicant" rather than the "certificate holder" or "operator."

The proposed section 8(b)(1) (now section 11(b)(1)) has been changed by

requiring an applicant for provisional approval to have a curriculum for instructors and evaluators, rather than an "approved" curriculum, since approval of a curriculum would be part of the provisional approval process.

The AC (Chapter 6) has been revised to provide guidelines to training centers in the methodology they should use to obtain provisional approval.

The SFAR does not require that each instructor or evaluator in a training center complete a full indoctrination program for each certificate holder for which the training center conducts training. Rather, a training center that provides training for a number of part 121 or part 135 certificate holders can develop a generic indoctrination program and specify the elements appropriate to each certificate holder. When the Administrator gives approval to a certificate holder to use a provisionally approved training center curriculum as part of the certificate holder's AQP, the Administrator's approval is equivalent to an "initial" approval under § 121.405 or § 135.325, as applicable.

The SFAR does not prevent a certificate holder that uses only one pilot in its operations under part 135 from developing a training program using the guidelines contained in the AQP AC (or using a training center's AQP-type program).

To clarify the status of training centers and training center employees, the applicability sections of both parts 121 and 135 (§§ 121.1 and 135.1) have been amended to make it clear that training centers and their employees are subject to the applicable rules of these respective parts when they seek to and actually perform services for certificate holders. Thus, a training center and its employees would be in much the same status as a maintenance facility that provides service to a part 121 or part 135 certificate holder. However, the fact that a training center can bring itself and its employees within the jurisdiction of part 121 or part 135 by seeking provisional approval of a curriculum does not make the training center a certificate holder nor does it ensure the training center that its services will be sought by a certificate holder. Furthermore, as indicated previously, provisional approval of a curriculum does not ensure that that curriculum will automatically be approved for use by a certificate holder, if a certificate holder applies to use that provisionally approved curriculum in its AQP. In most cases specific tailoring to the certificate holder's needs will be necessary.

Submission to District Offices

Application for approval of an AQP (proposed section 7(a); final rule section 10(a)) and application for provisional approval of a curriculum by a training center (proposed section 8(a)(1); final rule section 11(a)(1)) must be made to the appropriate FAA Flight Standards District Office.

Three commenters question the need for referencing the Flight Standards District Office. One states that it confuses the process since the Administrator is mentioned also. The other states that internal FAA organizational structure is not normally addressed in the rule and that there is no reason for an exception in this case.

Response: With respect to the approval authority, the commenters are technically correct. This authority is vested in the Administrator unless the Administrator delegates the authority to another person. Since "Administrator" is defined in 14 CFR part 1 to mean the Administrator "or any person to whom he has delegated authority in the matter concerned," it is not necessary to state the level of delegation within the rule. However, there are numerous places (e.g., §§ 121.358(b)(1), 121.77(b) and its proposed successor § 119.41(c)) where the present regulations are more specific because the FAA wants to ensure that initial contact is with the appropriate FAA local office.

Five-Year Termination

Five comments were received on the proposed expiration date of the SFAR in proposed section 10 (final rule section 13). All five comments state that an expiration date 5 years after the effective date is not long enough to prove the effectiveness of an AQP, especially considering the effort involved in development, approval, and validation of an AQP curriculum.

Response: The FAA believes that 5 years is long enough to determine effectiveness of approved AQPs.

Instructor and Evaluator Qualification

Ten comments were received on the qualification and continuing qualification requirements for instructors and evaluators. Issues raised and FAA responses are as follows:

- Section 2 defines an "evaluator" as a person who meets and maintains all of the qualifications under the AQP for an instructor * * * Several commenters point out that this requires that an evaluator must always be a qualified instructor. However, air carriers use line check pilots and initial operating experience check pilots who have never been flight instructors or evaluators.

Response: The FAA acknowledges that evaluator qualification requirements may not include all instructor requirements. For example, a person who has served as an instructor, an evaluator, or both in one make, model, and series aircraft could be an excellent evaluator in a similar aircraft without being fully qualified as an instructor in the second aircraft. Therefore, the rule and AQP AC have been changed to allow qualifying evaluators not otherwise qualified as instructors.

- Proposed section 3(b)(2) (ii) and (iii) set forth qualification curriculum requirements for instructors and evaluators. Several commenters requested that these requirements be broadened to include flight simulator, classroom, flight attendant, and dispatcher instructors. One commenter asks if the SFAR permits the use of flight simulator only instructors.

Response: The SFAR language (final rule section 5(b) (2) and (3)) has been broadened to permit the use of flight simulator, classroom, flight attendant, and dispatcher instructors, provided the FAA has approved the qualification standards under an AQP and the instructor meets those standards.

- One commenter stated that Line-Oriented Flight Training (LOFT) for 3 person crews must use instructors and evaluators that are active line qualified airmen.

Response: This rule and its accompanying AQP AC do not spell out prerequisites for instructors and evaluators conducting Line Operational Simulations (which includes LOFT). General guidance will be supplied in a Line Operational Simulations AC.

- One commenter says there is a problem with proposed section 3(c)(3)(iii) which requires instructors and evaluators who are limited to conducting their duties in flight simulators and flight training devices to have appropriate proficiency instruction in a flight training device or flight simulator on normal, abnormal, and emergency flight procedures and maneuvers. According to the commenter this would not teach an instructor or evaluator what he or she needs to know such as how to operate an instructor's console in a jump seat position. Proposed paragraph (c)(3) also requires recurring instruction for instructors and evaluators once every 26 calendar months. As proposed this instruction would be in a flight simulator and flight training device on normal, abnormal, and emergency flight procedures. This commenter states that instructors would not need recurring instruction in

procedures and maneuvers which they teach. The instruction itself should count as recurrent training.

Response: The FAA does not agree that instructors and evaluators have no need for training under a continuing qualification program in the procedures that they instruct or observe as instructors and evaluators. There is always a need to be kept current in changes in procedures, or equipment, or both. With respect to the commenter's concern that the SFAR does not require that the instructor or evaluator be trained in operating an instruction console in a jump seat position, the FAA points out that the SFAR does not duplicate all of the present FAR requirements. Sections 121.413 and 135.339 or alternative AQP requirements would ensure that each instructor or evaluator will be qualified in appropriate instruction or evaluation techniques, including operation of a console.

Flight Instruction and Evaluation Tables

The draft AQP AC presents flight instruction and evaluation tables in chapter 4, "Qualification Curricula." Nine commenters raised questions about these flight instruction/evaluation events tables. Virtually all commenters question the appropriateness of using these tables to impose more restrictive requirements than are in the present rules. Several point out that if a carrier did not have the level of flight simulator required by these draft tables, pilots would have to perform potentially dangerous maneuvers in an airplane. They question the appropriateness of making flight simulator use less available than under present rules. Several state that if the tables are retained (and at least one commenter thinks they should be eliminated) then further introductory language is needed to explain how the tables work. The consensus of the commenters is that the tables should not be viewed as minimum standards but rather as acceptable standards. That is, that use of a media as shown in the tables is automatically approved but that to quote one commenter, "use of media outside the indicated range would be authorized if satisfactorily justified."

Response: The FAA's intent is as recommended by these commenters. The tables are intended as acceptable standards, that is, if an AQP applicant uses the tables, the applicant is assured that in this area its application will be approved automatically. However, an applicant is free to propose utilization outside the charted ranges of qualification levels. FAA approval of utilization outside the charted range will

depend upon adequate justification. The AC now clarifies this intent. In reorganizing the AC, the tables were moved to Appendix C; they were also revised.

Acceptable Standards

One commenter suggested that the term "minimum standards" throughout the AQP AC be replaced by the term "acceptable standards." This commenter believes that the connotation of "minimum standards" "is not helpful to the FAA or the industry."

Response: The term "minimum standards" is used in the subtitle of title VI of the FA Act and repeatedly throughout title VI and is, the FAA believes, appropriate in describing the Federal Aviation Regulations. However, the AQP AC has been revised to use the term "acceptable" when appropriate to show that an applicant may obtain approval for an AQP that does not entirely follow the guidelines in the AQP AC but is an alternative equivalent to the guidelines in the AQP AC.

Proficiency Evaluation

Six comments were received on proposed section 3(c)(4)(i) which requires a proficiency evaluation for PICs, SICs, and flight engineers during each recurring training session. Three commenters request rewriting the paragraph because, as written, no training (including ground school sessions) could be conducted without accomplishing flight proficiency evaluations. They contend such a requirement might actually discourage frequent training sessions. Two commenters state that evaluations should be required on alternating training visits.

Response: The language of the SFAR has been clarified. The requirement for evaluation in section 6(b)(1) is tied to a certificate holder's evaluation period within an approved continuing qualification cycle and not to the number of visits that a person may make to a training facility to participate in training sessions. That is, if a certificate holder elects to divide its recurring training into more than one training session within an evaluation period, the certificate holder would only be required to conduct at least one proficiency evaluation during an evaluation period and would not be required, as proposed, to conduct one following each training session. However, a certificate holder that conducts several training sessions within an evaluation period would not be prevented from conducting proficiency evaluations as part of each training session.

One commenter asks if this proficiency evaluation requirement is related to the instrument proficiency check in § 135.297 or to the competency check required in § 135.293.

Response: The proficiency evaluation required by section 6(b)(3) (i) and (ii) would most likely consist of elements of both regulations. The SFAR requires that elements to be included must be approved as part of the continuing qualification curriculum.

Recency Requirements

Proposed section 3(c)(3)(iv) states that continuing qualification for PICs and SICs under an AQP must include recency of experience requirements in accordance with § 121.439.

Several commenters have questions about this requirement. One commenter thinks the requirement should be deleted since it is already in part 121. Another commenter asks if recency requirements of part 121 would apply or those required in an AQP. One commenter says that recency requirements are not presently tracked by training departments and so should not be part of training.

Response: In the final rule the FAA has changed the recency requirement of section 6(b)(4) by deleting the reference to § 121.429 and adding the word "approved" to recency requirements. The reference to recency requirements has been retained to make it clear that compliance with these requirements is an element of a continuing qualification curriculum. Guidelines on recency requirements are contained in the AQP AC.

Dual Operators

One commenter states that the part 135 proposed SFAR requirements are not compatible with parts 91 and 61. A PIC for an operator who operates under parts 91 and 135 would still be required to have a check every 12 calendar months as required by § 61.58.

Response: The FAA agrees that the proposed SFAR would not allow the flexibility intended for dual operators under parts 91 and 135. Therefore, the FAA is amending § 61.58 to provide that pilots maintaining continuing qualification under an approved AQP are considered to have met these check requirements.

Advisory Committee

In the preamble to the proposed SFAR, the FAA states that it is considering establishing a training advisory committee under the Federal Advisory Committee Act. Three commenters state strong support for this

idea. Two focus on the makeup of the committee. One states that it should be apolitical and the other states that it is essential that the line pilot be represented on the committee.

FAA Response: The FAA is in the process of establishing an advisory committee under the Federal Advisory Committee Act.

Curriculum Development

Four commenters point out that the draft AQP AC Chapter 2 "Overview: Components of an Advanced Qualification Program" is not as helpful as it should be for developing an AQP curriculum.

FAA Response: The FAA has revised the AQP AC to provide more detailed guidelines for developing AQP curriculums. Chapter 2 of the AQP AC provides an overview and new chapter 7 provides details on how to develop, implement, and maintain an AQP.

Principal Operations Inspectors and Approval

A comment from a training center expresses concern about the approval process. The commenter believes that Principal Operations Inspectors (POI) might frustrate the application of the AQP concept, particularly for training centers that have received provisional approval and may be asked to alter that curriculum to the specific needs of a certificate holder by a POI. What was approved in the first stage may be disapproved by the POI at the second stage.

Another commenter states that the FAA should provide for a central authority to review and approve AQPs to assure standardization.

Response: The FAA has established the Air Carrier Training Branch to ensure standardization of the AQP approval process. While AQP applications must be submitted to the Flight Standards District Office charged with the overall inspection of the certificate holder's or training center's operations, the application will be forwarded to the Air Carrier Training Branch for review and appropriate action.

The AQP AC has been revised to show procedures of the approval process in greater detail than the draft AC showed. The Air Carrier Training Branch will lead the review and analysis for each phase of the approval process. The review and analysis team will include an instructional system design specialist, air carrier operations specialists, a data management specialist, a civil aviation security inspector, an inspector from the National Simulator Program Staff, and

the designee of the applicant's operations inspector. The review and analysis findings will be documented in a report with recommendations for acceptance or rejection to the Manager, Air Carrier Training Branch.

Review and analysis procedures will be the same for certificate holders and training centers, except that for training centers the development process ends in provisional approval until the provisionally approved curriculum is tailored to a certificate holder's operations and reevaluated for approval as the certificate holder's AQP.

At no stage of the approval process would a POI or any member of the team act alone to accept or reject an application for an AQP. The initial submission of required documents to a POI would not be forwarded to the Air Carrier Training Branch if it was incomplete or otherwise not in compliance with submission procedures in the AQP AC.

Indoctrination

The proposed SFAR requires in section 3(a) that each AQP have separate curriculums for indoctrination that cover: (1) Company policies and practices for all newly hired persons; (2) general aeronautical knowledge for newly hired flight crewmembers and dispatchers; (3) methods and theories of instruction and the knowledge needed to use flight training devices and flight simulators for instructors; and (4) requirements, methods, policies, and practices of evaluating for evaluators.

Several commenters state that they did not think indoctrination curriculums should be mandatory. They should be optional as needed, for example, with entry level aircraft.

Response: Having an indoctrination curriculum as part of an AQP is required. If crewmembers have already completed indoctrination, repeating the curriculum will not be required. As discussed earlier, the presence of a curriculum in an AQP does not mean that each module of the curriculum must be used in every instance. It means that the curriculum objectives have been included in the program and if those objectives have not already been accomplished by a trainee, they must be.

Comment Period

Two commenters state that the 60-day comment period was insufficient. One of these commenters requests an additional 6 months and also requests that helicopter operations be considered in any future actions.

Response: The 60-day comment period for the proposed SFAR was considered to be adequate given the previous

consultation between FAA, other government agencies, and industry associations.

Beyond the Scope of the Notice

A few comments were received that did not directly relate to the proposal. These comments included information on training and training equipment, as well as an objection to the increase in the use of 2-person flight crews.

Miscellaneous Technical Comments

Several comments were received that request changes or clarifications of specific wording in the proposal. None of these comments would involve significant substantive changes. The FAA has considered these comments and, if appropriate, has changed or clarified the language accordingly.

Revision of the Advisory Circular

Certain revisions necessitated by comments have led to a reorganization of portions of the AC and the addition of new material. In particular AC Chapter 7, "Five Phases of the Advanced Qualification Program," Chapter 8, "Approval Process for an Advanced Qualification Program," and Chapter 9, "Advanced Qualification Program Validation" provide more detailed guidance than that provided in the draft AQP AC.

Regulatory Evaluation

The AQP is not mandatory; it is left up to the discretion of the individual certificate holder as to whether to adopt the AQP, and the FAA assumes that certificate holders will do so only if it improves their training effectiveness and safety or is otherwise in their economic interest. In fact, the limited available industry data suggests that benefits to the adopter could exceed costs. Therefore, it is assumed that this SFAR will not impose any additional net cost on the industry.

These regulations might make possible some costs savings in the air carriers' crew training programs. This may occur because: (1) Training time would be related to the attainment of individual proficiency instead of set hours of training, and (2) the frequency of recurring training for PIC's could be reduced thereby reducing training costs.

This section summarizes the full regulatory evaluation prepared by the FAA that provides more detailed estimates of the economic consequences of this regulatory action. This summary and the full evaluation quantify, to the extent practicable, estimated costs to the private sector, consumers, Federal,

State and local governments, as well as anticipated benefits.

Executive Order 12291, dated February 17, 1981, directs Federal agencies to promulgate new regulations or modify existing regulations only if potential benefits to society for each regulatory change outweigh potential costs. The order also requires the preparation of a Regulatory Impact Analysis of all "major" rules except those responding to emergency situations or other narrowly defined exigencies. A "major" rule is one that is likely to result in an annual effect on the economy of \$100 million or more, a major increase in consumer costs, a significant adverse effect on competition, or is highly controversial.

The FAA has determined that this rule is not "major" as defined in the executive order, therefore a full regulatory analysis, that includes the identification and evaluation of cost reducing alternatives to this rule, has not been prepared. Instead, the agency has prepared a more concise document termed a regulatory evaluation that analyzes only this rule without identifying alternatives. In addition to a summary of the regulatory evaluation, this section also contains a regulatory flexibility determination required by the 1980 Regulatory Flexibility Act (Pub. L. 96-354) and an international trade impact assessment. If more detailed economic information is desired than is contained in this summary, the reader is referred to the full regulatory evaluation contained in the docket.

Since the AQP will build upon the current system, the FAA expects it to provide levels of safety equal to or higher than that provided by current regulations. If after evaluation by the FAA's Air Carrier Training Branch, the AQP is determined to provide a higher level of safety than the current system, the FAA may consider making it mandatory for certain classes of operators under a future rulemaking action.

The only FAA costs attributable to this SFAR are those of establishing and operating an Air Carrier Training Branch with three sections with assistance from appropriate Security and Hazardous Material personnel. This branch would assume the primary responsibility for the final review and analysis of air carrier training programs submitted to the FAA for approval under the provisions of the SFAR.

The Air Carrier Training Branch will gather and analyze data to verify and validate proficiency requirements and program qualifications and will monitor and evaluate the AQP. This staff will consist of three sections, each with a

GM-15 manager, a total of 21 inspectors, specialists, and analysts, one GS-11 programmer, and two GS-6 secretaries. Field sections will share 5 workstations, a printer, plotter, and a telefax machine. The estimated annual cost of the new branch is \$2.2 million and a one-time cost of equipment of \$50,000.

The primary benefit expected of the proposed SFAR would be a reduction of the number of air carrier accidents in which crew coordination problems are a contributing factor. A review of NTSB aviation accident data reveals that during the past 20 years, there were 17 such accidents involving part 121 air carriers and 17 accidents involving part 135 air carriers. These accidents have resulted in 697 fatalities and 190 serious injuries and the costs of these types of accidents were \$1,329 million or about \$66 million dollars per year.

Accidents in which crew coordination problems were a contributing factor appear to have occurred at a consistent rate during the past 20 years for part 121 departures; there were 0.17 ± 0.08 accidents of this type per 1 million part 121 IFR departures. For part 135 operators, these types of accidents declined during the 70's and have been level during the 80's at $.84 \pm .40$ accidents per 1 million part 135 IFR departures. To be conservative, the FAA used the upper bounds of these estimates (.28 accidents per 1 million part 121 IFR departures and 1.24 accidents per 1 million part 135 IFR departures) to project the number of future accidents in which crew coordination problems are a contributing factor. Applying accident rates to forecasted departures for the period 1991 to 1995 the projected number of part 121 and part 135 accidents of this type are 9.0 and 17.9, respectively.

The economic losses due to these projected accidents would be substantial: \$609 million due to part 121 air carrier accidents and \$119 million due to part 135 air carrier accidents. The average annual loss during this period is estimated to be \$145 million a year. Accident trends will be closely monitored during the 5-year life of the SFAR to determine the impact of the AQP. AQP would also make possible some cost savings in the large air carriers' training programs. The limited available information suggests that large part 121 operators might have a crew training cost savings of \$81.9 million per year and that large part 135 operators would have a cost savings of \$5.1 million per year. Some training costs, however, would be increased by this SFAR. For the large part 121 operators, it is estimated that some training costs

would be increased by \$15.5 million per year; for the part 135 operators, some of their training costs are estimated to be increased by \$652,000 per year. Both the large part 121 and the large part 135 operators could have an annual net cost savings as a result of this SFAR—\$66.4 million for large part 121 operators, and \$4.4 million for large part 135 operators. These cost savings and cost increases are explained in more detail in the regulatory evaluation.

Two benefit-cost comparisons are made in this evaluation in order to take into account the uncertainties regarding the effectiveness of this program at reducing accidents and the amount of participation of part 121 and part 135 operators in this program. In the first comparisons it is assumed that 100 percent of the large part 121 and part 135 operators will participate in this program starting in the first year. It is also assumed that this program is only 20 percent effective at reducing aviation accidents in which cockpit crew coordination problems are a contributing factor. This is an arbitrary low number chosen to be a conservative estimate of the chief benefits of this program (another benefit would be a reduction in crew training costs for the large operators); the FAA expects this proposed program to be more effective than 20 percent. In the second comparison, it is assumed that only 5 percent of the crews used by the large part 121 and part 135 operators will participate in the program and that the program will only be one percent effective at reducing the above type of accidents. The second comparison is a worst case scenario.

In both comparisons, the potential benefits of this rule exceed the estimated costs of the program. In the first comparison, the present value of the 5-year stream of benefits is \$433 million which is \$345 million greater than the present value of the 5-year stream of costs which is \$88 million. In the second comparison, the present value of the 5-year stream of benefits is \$22 million which also exceeds the present value of the 5-year stream of costs which is \$10 million. Both of these ratios will be higher if the SFAR is more effective than 20 percent at reducing accidents in which cockpit crew coordination problems are a contributing factor. The FAA, therefore, determines that the benefits of the proposed SFAR will exceed the costs that may result from it.

International Trade Impact

The proposal would have little or no impact on trade for both U.S. firms doing

business overseas and foreign firms doing business in the United States. The proposals are likely to improve training efficiency and, therefore, reduce costs for U.S. air carriers.

Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (RFA) was enacted by Congress to ensure that small entities are not unnecessarily and disproportionately burdened by Government regulations. The RFA requires agencies to review rules which may have "a significant economic impact on a substantial number of small entities."

The proposals would impact those entities regulated by part 121 and part 135. The FAA's criteria for "a substantial number" is a number which is not less than 11 and which is more than one third of the small entities subject to the rule. For air carriers a small entity has been defined as one who owns, but does not necessarily operate, nine aircraft or less. The FAA's criteria for "a significant impact" are at least \$3,800 per year (1989 dollars) for an unscheduled carrier and \$53,400 or \$95,600 per year (1989 dollars) for a scheduled carrier depending on whether or not the fleet operated includes small aircraft (60 or fewer seats).

This SFAR does not impose any costs upon part 121 and part 135 certificate holders because the provisions in this SFAR are voluntary. It is left to the discretion of the certificate holders as to whether they will adopt the provisions of this SFAR. Those that do, will do so because adopting this SFAR will improve their operations and safety without a net increase in costs or because it is in their economic interest. The FAA believes that the larger air carriers are most likely to adopt the provisions of this SFAR and that the smaller air carriers would not. The smaller air carriers would not be able to adopt the provisions in this SFAR because they do not have the necessary facilities and equipment and because of the high turnover rate of their pilots. Flight training centers might alleviate the first problem. As a result of economies of scale, these centers could offer flight crew training programs that make maximum use of flight simulators and flight training devices to small air carriers at affordable rates. However, the high turnover rate of their pilots necessitates that small air carriers concentrate their pilot training on improving and maintaining pilot proficiency and discourages small air carriers from adopting AQP.

This SFAR imposes no additional cost on any small part 121 certificate holder nor any additional cost on any small

part 135 certificate holder. Therefore, the proposed amendments to 14 CFR parts 121 and 135 will not have a significant economic impact on a substantial number of small entities.

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 12612, it is determined that this regulation will not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

Conclusion

For the reasons discussed in the preamble, and based on the findings in the Regulatory Flexibility Determination and the International Trade Impact Analysis, the FAA has determined that this regulation is not major under Executive Order 12291. In addition, the FAA certifies that this regulation will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. This regulation is considered significant under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). A regulatory evaluation of the proposal, including a Regulatory Flexibility Determination and Trade Impact Analysis, has been placed in the docket. A copy may be obtained by contacting the person identified under "FOR FURTHER INFORMATION CONTACT."

List of Subjects

14 CFR Part 61

Air safety, Air transportation, Aviation safety, Safety.

14 CFR Part 63

Air Safety, Air transportation, Airmen, Aviation safety, Safety, Transportation.

14 CFR Part 65

Airmen, Aviation safety, Air transportation, Aircraft.

14 CFR Part 108

Airplane operator security, Aviation safety, Air transportation, Air carriers, Airlines, Security measures, Transportation, Weapons.

14 CFR Part 121

Aircraft pilots, Airmen, Aviation safety, Pilots, Safety.

14 CFR Part 135

Air carriers, Air transportation, Airmen, Aviation safety, Safety, Pilots.

Adoption of the Amendment

Accordingly, the Federal Aviation Administration amends title 14, chapter I of the Code of Federal Regulations, as set forth below:

PART 61—CERTIFICATION: PILOTS AND FLIGHT INSTRUCTORS

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

Authority: 49 U.S.C. 1354(a), 1355, 1421, 1422, and 1427; 49 U.S.C. 106(g) (Revised, Pub. L. 97-449, January 12, 1983).

2. In part 61 the table of contents is amended by adding SFAR No. 58 to read as follows:

Special Federal Aviation Regulations

SFAR No. 58 [Note]

3. A section for Special Federal Aviation Regulations is added to read as follows:

Special Federal Aviation Regulations

SFAR No. 58

Editorial Note: For the text of SFAR No. 58, see part 121 of this chapter.

4. Section 61.58 is amended by revising paragraph (e) to read as follows:

§ 61.58 Pilot in command proficiency check: Operation of aircraft requiring more than one required pilot.

(e) This section does not apply to persons conducting operations subject to parts 121, 127, 133, 135, and 137 of this chapter or to persons maintaining continuing qualification under an Advanced Qualification Program approved under SFAR 58.

PART 63—CERTIFICATION: FLIGHT CREWMEMBERS OTHER THAN PILOTS

5. The authority citation for part 63 continues to read as follows:

Authority: 49 U.S.C. 1354(a), 1355, 1421, 1422, 1427, 1429, and 1430; 49 U.S.C. 106(g) (revised, Pub. L. 97-449, January 12, 1983).

6. In part 63 the table of contents is amended by adding SFAR No. 58 to read as follows:

Special Federal Aviation Regulations

SFAR No. 58 [Note]

7. A section for Special Federal Aviation Regulations is added to read as follows:

**Special Federal Aviation Regulations
SFAR No. 58**

Editorial Note: For the text of SFAR No. 58, see part 121 of this chapter.

**PART 65—CERTIFICATION: AIRMEN
OTHER THAN FLIGHT
CREWMEMBERS**

8. The authority citation for part 65 continues to read as follows:

Authority: 49 U.S.C. 1354(a), 1355, 1421, 1422, and 1427; 49 U.S.C. 106(g) (revised, Pub. L. 97-449, January 12, 1983).

9. In part 65 the table of contents is amended by adding SFAR No. 58 to read as follows:

**Special Federal Aviation Regulations
SFAR No. 58 [Note]**

10. A section for Special Federal Aviation Regulations is added to read as follows:

**Special Federal Aviation Regulations
SFAR No. 58**

Editorial Note: For the text of SFAR No. 58, see part 121 of this chapter.

**PART 108—AIRPLANE OPERATOR
SECURITY**

11. The authority citation for part 108 continues to read as follows:

Authority: 49 U.S.C. 1354, 1356, 1357, 1358, 1421, and 1424; 49 U.S.C. 106(g) (Revised, Pub. L. 97-449, January 12, 1983).

12. Section 108.23(b) is revised to read as follows:

§ 108.23 Training.

(b) No certificate holder may use any person as a crewmember on any domestic or international flight unless within the preceding 12 calendar months or within the time period specified in an Advanced Qualification Program approved under SFAR 58 that person has satisfactorily completed the security training required by § 121.417(b)(3)(v) or § 135.331(b)(3)(v) of this chapter and as specified in the certificate holder's approved security program. With respect to training conducted under § 121.417 or § 135.331, Whenever a crewmember who is required to take recurrent training completes the training in the calendar month before or the calendar month after the calendar month in which that training is required, he is considered to have completed the training in the calendar month in which it was required.

**PART 121—CERTIFICATION AND
OPERATIONS: DOMESTIC, FLAG, AND
SUPPLEMENTAL AIR CARRIERS AND
COMMERCIAL OPERATORS OF
LARGE AIRCRAFT**

13. The authority citation for part 121 continues to read as follows:

Authority: 49 U.S.C. 1354(a), 1355, 1356, 1357, 1401, 1421-1430, 1472, 1485, and 1502; 49 U.S.C. 106(g) (Revised Pub. L. 97-449, January 12, 1983).

14. In part 121 the table of contents of Special Federal Aviation Regulations is amended by adding SFAR No. 58 to read as follows:

Special Federal Aviation Regulations

* * * * *

SFAR No. 58

15. In part 121 the section of Special Federal Aviation Regulations is amended, by adding SFAR No. 58 to read as follows:

Special Federal Aviation Regulations

* * * * *

**Special Federal Aviation Regulation No. 58—
Advanced Qualification Program**

Section

1. Purpose and eligibility.
2. Definitions.
3. Required Curricula.
4. Indoctrination Curricula.
5. Qualification Curricula.
6. Continuing Qualification Curricula.
7. Other Requirements.
8. Certification.
9. Training Devices and Simulators.
10. Approval of Advanced Qualification Program.
11. Approval of Training, Qualification, or Evaluation by a Person Who Provides Training by Arrangement.
12. Recordkeeping requirements.
13. Expiration.

Contrary provisions of parts 61, 63, 65, 121, and 135 of the Federal Aviation Regulations notwithstanding—

1. *Purpose and Eligibility.*
(a) This Special Federal Aviation Regulation provides for approval of an alternate method (known as "Advanced Qualification Program" or "AQP") for qualifying, training, certifying, and otherwise ensuring competency of crewmembers, aircraft dispatchers, other operations personnel, instructors, and evaluators who are required to be trained or qualified under parts 121 and 135 of the FAR or under this SFAR.

(b) A certificate holder is eligible under this Special Federal Aviation Regulation if the certificate holder is required to have an approved training program under § 121.401 or § 135.341 of the FAR, or elects to have an approved training program under § 135.341.

(c) A certificate holder obtains approval of each proposed curriculum under this AQP as specified in section 10 of this SFAR.

(d) A curriculum approved under the AQP may include elements of present Part 121 and

Part 135 training programs. Each curriculum must specify the make, model, and series aircraft (or variant) and each crewmember position or other positions to be covered by that curriculum. Positions to be covered by the AQP must include all flight crewmember positions, instructors, and evaluators and may include other positions, such as flight attendants, aircraft dispatchers, and other operations personnel.

(e) Each certificate holder that obtains approval of an AQP under this SFAR shall comply with all of the requirements of that program.

2. *Definitions.* As used in this SFAR: *Curriculum* means a portion of an Advanced Qualification Program that covers one of three program areas: (1) indoctrination, (2) qualification, or (3) continuing qualification. A qualification or continuing qualification curriculum addresses the required training and qualification activities for a specific make, model, and series aircraft (or variant) and for a specific duty position.

Evaluator means a person who has satisfactorily completed training and evaluation that qualifies that person to evaluate the performance of crewmembers, instructors, other evaluators, aircraft dispatchers, and other operations personnel.

Facility means the physical environment required for training and qualification (e.g., buildings, classrooms).

Training center means an independent organization that provides training under contract or other arrangement to certificate holders. A training center may be a certificate holder that provides training to another certificate holder, an aircraft manufacturer that provides training to certificate holders, or any non-certificate holder that provides training to a certificate holder.

Variant means a specifically configured aircraft for which the FAA has identified training and qualification requirements that are significantly different from those applicable to other aircraft of the same make, model, and series.

3. *Required Curricula.* Each AQP must have separate curricula for indoctrination, qualification, and continuing qualification as specified in sections 4, 5, and 6 of this SFAR.

4. *Indoctrination Curricula.* Each indoctrination curriculum must include the following:

(a) For newly hired persons being trained under an AQP: Company policies and operating practices and general operational knowledge.

(b) For newly hired flight crewmembers and aircraft dispatchers: General aeronautical knowledge.

(c) For instructors: The fundamental principles of the teaching and learning process; methods and theories of instruction; and the knowledge necessary to use aircraft, flight training devices, flight simulators, and other training equipment in advanced qualification curricula.

(d) For evaluators: Evaluation requirements specified in each approved curriculum; methods of evaluating crewmembers and aircraft dispatchers and other operations

personnel; and policies and practices used to conduct the kinds of evaluations particular to an advanced qualification curriculum (e.g., proficiency and online).

5. *Qualification Curriculum.* Each qualification curriculum must include the following:

(a) The certificate holder's planned hours of training, evaluation, and supervised operating experience.

(b) A list of and text describing the training, qualification, and certification activities, as applicable for specific positions subject to the AQP, as follows:

(1) *Crewmembers, aircraft dispatchers, and other operations personnel.* Training, evaluation, and certification activities which are aircraft- and equipment-specific to qualify a person for a particular duty position on, or duties related to the operation of a specific make, model, and series aircraft (or variant); a list of and text describing the knowledge requirements, subject materials, job skills, and each maneuver and procedure to be trained and evaluated; the practical test requirements in addition to or in place of the requirements of parts 61, 63, and 65; and a list of and text describing supervised operating experience.

(2) *Instructors.* Training and evaluation to qualify a person to impart instruction on how to operate, or on how to ensure the safe operation of a particular make, model, and series aircraft (or variant).

(3) *Evaluators.* Training, evaluation, and certification activities that are aircraft and equipment specific to qualify a person to evaluate the performance of persons who operate or who ensure the safe operation of, a particular make, model, and series aircraft (or variant).

6. *Continuing Qualification Curricula.* Continuing qualification curricula must comply with the following requirements:

(a) *General.* A continuing qualification curriculum must be based on—

(1) A continuing qualification cycle that ensures that during each cycle each person qualified under an AQP, including instructors and evaluators, will receive a balanced mix of training and evaluation on all events and subjects necessary to ensure that each person maintains the minimum proficiency level of knowledge, skills, and attitudes required for original qualification; and

(2) If applicable, flight crewmember or aircraft dispatcher recency of experience requirements.

(b) *Continuing Qualification Cycle Content.* Each continuing qualification cycle must include at least the following:

(1) *Evaluation period.* An evaluation period during which each person qualified under an AQP must receive at least one training session and a proficiency evaluation at a training facility. The number and frequency of training sessions must be approved by the Administrator. A training session, including any proficiency evaluation completed at that session, that occurs any time during the two calendar months before the last date for completion of an evaluation period can be considered by the certificate holder to be completed in the last calendar month.

(2) *Training.* Continuing qualification must include training in all events and major

subjects required for original qualification, as follows:

(i) For pilots in command, seconds in command, flight engineers, and instructors and evaluators: Ground training including a general review of knowledge and skills covered in qualification training, updated information on newly developed procedures, and safety information.

(ii) For crewmembers, aircraft dispatchers, instructors, evaluators, and other operation personnel who conduct their duties in flight: Proficiency training in an aircraft, flight training device, or flight simulator on normal, abnormal, and emergency flight procedures and maneuvers.

(iii) For instructors and evaluators who are limited to conducting their duties in flight simulators and flight training devices: Proficiency training in a flight training device and/or flight simulator regarding operation of this training equipment and in operational flight procedures and maneuvers (normal, abnormal, and emergency).

(3) *Evaluations.* Continuing qualification must include evaluation in all events and major subjects required for original qualification, and online evaluations for pilots in command and other eligible flight crewmembers. Each person qualified under an AQP must successfully complete a proficiency evaluation and, if applicable, an online evaluation during each evaluation period. An individual's proficiency evaluation may be accomplished over several training sessions if a certificate holder provides more than one training session in an evaluation period. The following evaluation requirements apply:

(i) Proficiency evaluations as follows:

(A) For pilots in command, seconds in command, and flight engineers: A proficiency evaluation, portions of which may be conducted to an aircraft, flight simulator, or flight training device as approved in the certificate holder's curriculum which must be completed during each evaluation period.

(B) For any other persons covered by an AQP a means to evaluate their proficiency in the performance of their duties in their assigned tasks in an operational setting.

(ii) Online evaluations as follows:

(A) For pilots in command: An online evaluation conducted in an aircraft during actual flight operations under part 121 or part 135 or during operationally (line) oriented flights, such as ferry flights or proving flights. An online evaluation in an aircraft must be completed in the calendar month that includes the midpoint of the evaluation period. An online evaluation that is satisfactorily completed in the calendar month before or the calendar month after the calendar month in which it becomes due is considered to have been completed during the calendar month it became due. However, in no case is an online evaluation under this paragraph required more often than once during an evaluation period.

(B) During the online evaluations required under paragraph (b)(3)(ii)(A) of this section, each person performing duties as a pilot in command, second in command, or flight engineer for that flight, must be individually evaluated to determine whether he or she—
(7) Remains adequately trained and currently

proficient with respect to the particular aircraft, crew position, and type of operation in which he or she serves; and (2) Has sufficient knowledge and skills to operate effectively as part of a crew.

(4) *Recency of experience.* For pilots in command and seconds in command, and if the certificate holder elects, flight engineers and aircraft dispatchers, approved recency of experience requirements.

(c) *Duration periods.* Initially the continuing qualification cycle approved for an AQP may not exceed 26 calendar months and the evaluation period may not exceed 13 calendar months. Thereafter, upon demonstration by a certificate holder that an extension is warranted, the Administrator may approve extensions of the continuing qualification cycle and the evaluation period in increments not exceeding 3 calendar months. However, a continuing qualification cycle may not exceed 39 calendar months and an evaluation period may not exceed 26 calendar months.

(d) *Requalification.* Each continuing qualification curriculum must include a curriculum segment that covers the requirements for requalifying a crewmember, aircraft dispatcher, or other operations personnel who has not maintained continuing qualification.

7. *Other Requirements.* In addition to the requirements of sections 4, 5, and 6, each AQP qualification and continuing qualification curricula must include the following requirements:

(a) Approved Cockpit Resource Management (CRM) Training applicable to each position for which training is provided under an AQP.

(b) Approved training on and evaluation of skills and proficiency of each person being trained under an AQP to use their cockpit resource management skills and their technical (piloting or other) skills in an actual or simulated operations scenario. For flight crewmembers this training and evaluation must be conducted in an approved flight training device or flight simulator.

(c) Data collection procedures that will ensure that the certificate holder provides information from its crewmembers, instructors, and evaluators that will enable the FAA to determine whether the training and evaluations are working to accomplish the overall objectives of the curriculum.

8. *Certification.* A person enrolled in an AQP is eligible to receive a commercial or airline transport pilot, flight engineer, or aircraft dispatcher certificate or appropriate rating based on the successful completion of training and evaluation events accomplished under that program if the following requirements are met:

(a) Training and evaluation of required knowledge and skills under the AQP must meet minimum certification and rating criteria established by the Administrator in parts 61, 63, or 65. The Administrator may accept substitutes for the practical test requirements of parts 61, 63, or 65, as applicable.

(b) The applicant satisfactorily completes the appropriate qualification curriculum.

(c) The applicant shows competence in required technical knowledge and skills (e.g., piloting) and cockpit resource management knowledge and skills in scenarios that test both types of knowledge and skills together.

(d) The applicant is otherwise eligible under the applicable requirements of part 61, 63, or 65.

9. Training Devices and Simulators.

(a) *Qualification and approval of flight training devices and flight simulators.* (1) Any training device or simulator that will be used in an AQP for one of the following purposes must be evaluated by the Administrator for assignment of a flight training device or flight simulator qualification level:

(i) Required evaluation of individual or crew proficiency.

(ii) Training activities that determine if an individual or crew is ready for a proficiency evaluation.

(iii) Activities used to meet recency of experience requirements.

(iv) Line Operational Simulations (LOS).

(2) To be eligible to request evaluation for a qualification level of a flight training device or flight simulator an applicant must—

(i) Hold an operating certificate; or

(ii) Be a training center that has applied for authorization to the Administrator or has been authorized by the Administrator to conduct training or qualification under an AQP.

(3) Each flight training device or flight simulator to be used by a certificate holder or training center for any of the purposes set forth in paragraph (a)(1) of this section must—

(i) Be, or have been, evaluated against a set of criteria established by the Administrator for a particular qualification level of simulation;

(ii) Be approved for its intended use in a specified AQP; and

(iii) Be part of a flight simulator or flight training device continuing qualification program approved by the Administrator.

(b) Approval of other Training Equipment.

(1) Any training device that is intended to be used in an AQP for purposes other than those set forth in paragraph (a)(1) of this section must be approved by the Administrator for its intended use.

(2) An applicant for approval of a training device under this paragraph must identify the device by its nomenclature and describe its intended use.

(3) Each training device approved for use in an AQP must be part of a continuing program to provide for its serviceability and fitness to perform its intended function as approved by the Administrator.

10. Approval of Advanced Qualification Program.

(a) *Approval Process.* Each applicant for approval of an AQP curriculum under this SFAR shall apply for approval of that curriculum. Application for approval is made to the certificate holder's FAA Flight Standards District Office.

(b) *Approval Criteria.* An application for approval of an AQP curriculum will be approved if the program meets the following requirements:

(1) It must be submitted in a form and manner acceptable to the Administrator.

(2) It must meet all of the requirements of this SFAR.

(3) It must indicate specifically the requirements of parts 61, 63, 65, 121 or 135, as applicable, that would be replaced by an AQP curriculum. If a requirement of parts 61, 63, 65, 121, or 135 is replaced by an AQP curriculum, the certificate holder must show how the AQP curriculum provides an equivalent level of safety for each requirement that is replaced. Each applicable requirement of parts 61, 63, 65, 121 or 135 that is not specifically addressed in an AQP curriculum continues to apply to the certificate holder.

(c) *Application and Transition.* Each certificate holder that applies for one or more advanced qualification curriculums or for a revision to a previously approved curriculum must comply with § 121.405 or § 135.325, as applicable, and must include as part of its application a proposed transition plan (containing a calendar of events) for moving from its present approved training to the advanced qualification training.

(d) *Advanced Qualification Program Revisions or Rescissions of Approval.* If after a certificate holder begins operations under an AQP, the Administrator finds that the certificate holder is not meeting the provisions of its approved AQP, the Administrator may require the certificate holder to make revisions in accordance with § 121.405 or § 135.325, as applicable, or to submit and obtain approval for a plan (containing a schedule of events) that the certificate holder must comply with and use to transition to an approved Part 121 or Part 135 training program, as appropriate.

11. Approval of Training, Qualification, or Evaluation by a Person who Provides Training by Arrangement.

(a) A certificate holder under part 121 or part 135 may arrange to have AQP required training, qualification, or evaluation functions performed by another person (a "training center") if the following requirements are met:

(1) The training center's training and qualification curriculums, curriculum segments, or portions of curriculum segments must be provisionally approved by the Administrator. A training center may apply for provisional approval independently or in conjunction with a certificate holder's application for AQP approval. Application for provisional approval must be made to the FAA's Flight Standards District Office that has responsibility for the training center.

(2) The specific use of provisionally approved curriculums, curriculum segments, or portions of curriculum segments in a certificate holder's AQP must be approved by the Administrator as set forth in section 10 of this SFAR.

(b) An applicant for provisional approval of a curriculum, curriculum segment, or portion of a curriculum segment under this paragraph must show that the following requirements are met:

(1) The applicant must have a curriculum for the qualification and continuing qualification of each instructor or evaluator employed by the applicant.

(2) The applicant's facilities must be found by the Administrator to be adequate for any

planned training, qualification, or evaluation for a part 121 or part 135 certificate holder.

(3) Except for indoctrination curriculums, the curriculum, curriculum segment, or portion of a curriculum segment must identify the specific make, model, and series aircraft (or variant) and crewmember or other positions for which it is designed.

(c) A certificate holder who wants approval to use a training center's provisionally approved curriculum, curriculum segment, or portion of a curriculum segment in its AQP, must show that the following requirements are met:

(1) Each instructor or evaluator used by the training center must meet all of the qualification and continuing qualification requirements that apply to employees of the certificate holder that has arranged for the training, including knowledge of the certificate holder's operations.

(2) Each provisionally approved curriculum, curriculum segment, or portion of a curriculum segment must be approved by the Administrator for use in the certificate holder's AQP. The Administrator will either provide approval or require modifications to ensure that each curriculum, curriculum segment, or portion of a curriculum segment is applicable to the certificate holder's AQP.

12. *Recordkeeping Requirements.* Each certificate holder and each training center holding AQP provisional approval shall show that it will establish and maintain records in sufficient detail to establish the training, qualification, and certification of each person qualified under an AQP in accordance with the training, qualification, and certification requirements of this SFAR.

13. *Expiration.* This Special Federal Aviation Regulation terminates on October 2, 1995 unless sooner terminated.

16. In part 121, § 121.1 is amended by redesignating paragraph (c)(2) as (c)(3) and by adding a new paragraph (c)(2) to read as follows:

§ 121.1 Applicability.

* * * * *

(c) * * *

(2) Each person who applies for provisional approval of an Advanced Qualification Program curriculum, curriculum segment, or portion of a curriculum segment under SFAR No. 58 and each person employed or used by an air carrier or commercial operator under this part to perform training, qualification, or evaluation functions under an Advanced Qualification Program under SFAR No. 58; and

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PART 135—AIR TAXI OPERATORS AND COMMERCIAL OPERATORS

17. The authority citation for part 135 continues to read as follows:

Authority: 49 U.S.C. 1354(a), 1355(e), 1421 through 1431, and 1502; 49 U.S.C. 106(g) [Revised Pub. L. 97-440, January 12, 1983].

18. In part 135 the table of contents of Special Federal Aviation Regulations is amended by adding SFAR No. 58 to read as follows:

Special Federal Aviation Regulations

* * * * *

SFAR No. 58 [Note]

19. The section of Special Federal Aviation Regulations is amended, by adding SFAR No. 58 [Note] to read as follows:

Special Federal Aviation Regulations

* * * * *

SFAR No. 58

Editorial Note: For the text of SFAR No. 58, see part 121 of this chapter.

20. In part 135, § 135.1 is amended by redesignating paragraph (a)(4) as (a)(5) and adding a new paragraph (a)(4) to read as follows:

§ 135.1 Applicability.

* * * * *

(a) * * *

(4) Each person who applies for provisional approval of an Advanced Qualification Program curriculum, curriculum segment, or portion of a curriculum segment under SFAR No. 58 and each person employed or used by an air carrier or commercial operator under this part to perform training, qualification, or evaluation functions under an Advanced Qualification Program under SFAR No. 58; and

* * * * *

Issued in Washington, DC.

James B. Busey,

Administrator.