

[4910-13]

[Docket No. 17034; Amdt. No. ~~121-144~~]

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

**Operations Review Program
Amendment No. 5**

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The purpose of these amendments is to update and improve the requirements applicable to airmen and crewmembers, training programs, flight operations, dispatching and flight release, and records and reports of air carriers and commercial operators of large aircraft. These amendments are part of the Operations Review Program.

EFFECTIVE DATE: June 26, 1978.

FOR FURTHER INFORMATION CONTACT:

Mr. D. A. Schroeder, Safety Regulations Division, Federal Aviation Administration, 800 Independence Avenue SW., Washington, D.C. 20591, telephone 202-755-8715.

SUPPLEMENTARY INFORMATION:

HISTORY

These amendments are the fifth in a series of amendments to be issued as a part of the Operations Review Program. The following series of amendments have previously been issued as part of the Operations Review Program:

Title and FR Citation

Clarifying and Editorial Changes (41 FR 47227; October 28, 1976).
Rotorcraft External-Load Operations (42 FR 24196; May 12, 1977, amended by 42 FR 32531; June 27, 1977).
Airspace, Air Traffic and General Operating Rules (to be issued at a later date).
Miscellaneous Amendments (see this issue of FEDERAL REGISTER).

These amendments are based on a notice of proposed rule making (Notice 77-12) published in the FEDERAL REGISTER on July 21, 1977 (42 FR 37417). All interested persons have been given an opportunity to participate in the making of these amendments and due consideration has been given to all matters presented. A number of substantive changes and changes of an editorial and clarifying nature have been made to the proposed rules based upon relevant comments received and upon further review by the FAA. Except for minor editorial and clarifying changes and the substantive changes discussed below, these amendments and reasons for their adoption are the same as those contained in Notice 77-12.

DISCUSSION OF COMMENTS

Several comments were received which discussed matters not proposed in the notice. These comments are beyond the scope of the notice and cannot be considered without further notice and public participation. Some of the comments dealt with proposals that will be included in other notices at a later date.

The following discussion is keyed to like numbered proposals contained in Notice 77-12 and amendments to §§ 121.3 and 121.601. As these amendments to §§ 121.3 and 121.601 are clarifying and relaxatory in nature and do not impose a burden on the public, I find that the notice and public procedure are unnecessary and that the amendments may be made effective without notice.

AMENDMENT TO § 121.3

Pub. L. 95-163 amended the Federal Aviation Act of 1958 to establish a new

class of air carriers called "all-cargo air carriers". The Civil Aeronautics Board promulgated a new Part 291 applicable to all-cargo air carriers issued certificates under the Federal Aviation Act. These actions required the FAA to amend Part 121 of the FAR (43 FR 1789, January 12, 1978), to provide for the certification and regulation of these carriers in the interest of safety. A new paragraph (h) was added to § 121.3 to provide that operations conducted by holders of these certificates must comply with the rules in Part 121 that govern supplemental air carriers. However, when this amendment was issued, the reference to paragraph (h) in paragraphs (a), (c) and (e) of § 121.3 was inadvertently omitted. Thus, paragraphs (a), (c) and (e) of § 121.3 are amended accordingly.

Proposal 5-1. No unfavorable comments were received on proposed § 121.383(a). Accordingly, the proposal is adopted without change.

Proposal 5-2. One commenter requested that the word "and" at the end of proposed § 121.409(b)(2) not be revised to "or," as this would indicate that either (b) (1) and (2) were applicable or as an alternative (b)(3) and (b)(4), in which case the 4-hour minimum would be eliminated. The FAA does not agree. The word "or" at the end of § 121.409(b)(2) applies to (b)(2) and (b)(3) only, allowing the certificate holder to use either approved training program. This proposed amendment does not affect the 4-hour training requirement.

One commenter suggested that proposed § 121.409(b)(3)(ii) be revised by deleting the words "abnormal and emergency procedures" and inserting the words "includes representative maneuvers which may be expected in line operation and procedures." The FAA does not agree. The proposed revision to § 121.409(b)(3)(ii) states that maneuvers and procedures that may be expected in line operations, including abnormal and emergency, are to be given during the training program. Therefore, training in abnormal and emergency procedures and maneuvers that may be expected in normal line operations is required.

The same commenter suggested that the word "times" be deleted in proposed § 121.409(b)(3)(iii) as this would severely limit the effectiveness of a scenario representing the operations for long haul carriers by overemphasizing the enroute phase. The FAA agrees, and the word "times" is deleted. The FAA believes that the training syllabus must represent a typical flight segment of the operator that a flight crewmember may realistically expect to fly. In simulating a long flight segment, the simulator flight should emphasize the most active portions of the flight such as the descent and approach phase. Accordingly, pro-

posed § 121.409(b)(3)(iii) is adopted with the change discussed.

Proposal 5-3. Three commenters questioned the meaning of the phrase "abnormal cabin deck angle, high winds, and structural deformation," in proposed § 121.417(b)(2)(iv). The FAA agrees that it would be very difficult to define the varying conditions presented by the above terms. Specific reference to the additional forces caused by abnormal cabin deck angle, high winds, and structural deformation are deleted as difficult to define and simulate. However, the word "conditions" in place of "circumstances" is retained and training should simulate as nearly as possible conditions such as the additional forces that could be encountered when opening exits in the emergency mode and under adverse conditions such as abnormal cabin, deck angle, high winds and structural deformation. In light of the comments and after further FAA review, proposed § 121.417(b)(2)(iv) has been revised by deleting the phrases "abnormal cabin, deck angle, high winds, and structural deformation," and "the additional forces that will be encountered."

One commenter objects to proposed § 121.417(b)(2)(v) stating that they did not consider items such as galley lifts and cart tie downs as emergency equipment. Another commenter requested proposed § 121.417(b)(2)(v) be revised by adding the words "but not limited to" after the word "as." In light of the comments and after further review, the FAA agrees with the first commenter that these items are not emergency equipment. Accordingly, proposed § 121.417(b)(2)(v) is withdrawn.

One commenter objected to proposed § 121.417(b)(3)(ii) stating that smoke control does not necessarily imply removal, and that circuit breakers are designed for automatic protection and are not necessarily for manual use. Another commenter believed that electrical equipment and related circuit breaker training should be accomplished during training on systems operations as opposed to emergency training. The FAA does not agree. The FAA believes that training on electrical equipment and related circuit breakers should be given not only during initial systems operation training, but during recurrent training as well. Most training programs contain procedures applicable to both smoke control and removal as they are correlated emergency problems. In many cases, electrical smoke and fire procedures call for manually tripping circuit breakers to isolate and control the problem. Therefore, the FAA believes that each crewmember should be familiar with the operation and use of the electrical equipment including related circuit breakers located in

their area of responsibility. Accordingly, proposed § 121.417(b)(3)(ii) is adopted without substantive change.

One commenter requested that the words "and discussion" be inserted after the word "Review" in proposed § 121.417(b)(4). The FAA agrees since this change would encourage the exchange of ideas as to how the accident or incident occurred, and would reduce the use of film as the only training means. Accordingly, proposed § 121.417(b)(4) is adopted with this change.

Two commenters objected to the 24 calendar months in proposed § 121.417(c) and felt that recurrent training should be annually for all crewmembers. The FAA agrees but points out that this proposal provides for each crewmember to perform certain drills or actually operate emergency equipment every 2 years, and that the recurrent training requirements of § 121.433 are not affected.

Three commenters stated that if each crewmember would be required to deploy a slide during recurrent training, this would impose a severe financial and manpower drain on the airlines, and suggested that the words "actually operate" be replaced with one of the following phrases, "must witness a demonstration" or "participate in the operation of." The FAA agrees and the words "participate in the operation of" are substituted for the words "actually operate" for crewmembers deploying and using emergency evacuation slides during recurrent training. However, during initial training, as provided in the rule, each crewmember is required to actually operate each item of equipment required for the deployment and use of emergency evacuation slides. This amendment would still allow the use of approved pictorial presentation, or demonstrations, during alternate training periods required by § 121.433.

Two commenters objected to proposed § 121.417(c)(1) as they were opposed to training flight attendants on exits they are unlikely to or cannot use, as in the case of the B-747 cockpit escape hatch and its associated escape devices. The FAA believes that crewmembers should receive training on the exits located in their area of responsibility. This would include the use of the exits on the upper deck of the B-747, if passengers are allowed in that area during takeoff and landing.

In light of these comments, and further FAA review, proposed § 121.417(c) has been revised by combining the requirements of § 121.417 (c) and (d), and by adding the following phrase at the end of § 121.417(c) "Alternate recurrent training periods required by § 121.433 may be accomplished by approved pictorial presentation or demonstration." The phrase "and actual forces involved and the" has been deleted from § 121.417(c)(1).

One commenter objected to proposed § 121.417(d) in that the emergency drills required by this section would be required for every recurrent training period. The commenter also suggested that this paragraph be rearranged with a heading titled "Ditching, if applicable", a list of those items applicable to ditching, and provisions for the increased use of audio visual training. The FAA agrees and has amended § 121.417(c) by combining the requirements of proposed §§ 121.417(c) and 121.417(d). This would, in fact, relax the recurrent training requirements of proposed § 121.417(d) by making these drills (if applicable) a requirement during initial training and once each 24 calendar months. The FAA believes that an approved audio visual training program properly conducted can produce very beneficial emergency crew training, but believes that for crewmembers to remain completely proficient in their related emergency duties, actual performance of the emergency drills would be required during the 24-calendar-months recurrent training period.

One commenter requested that the words "if applicable" be deleted from proposed § 121.417(c)(1). The FAA does not agree but believes that emergency ditching drills should be given only to crewmembers who are scheduled to fly over areas requiring such emergency equipment. Current § 121.417(d) was inadvertently omitted in Notice 77-12 and remains, in effect, unchanged.

Proposal 5-4. One commenter objected to the words "type rating" in the proposed flush paragraph at the end of § 121.425(a)(2) stating the purpose of the flight check was to determine the applicant's ability to perform his required duties, and that a type rating requirement is needlessly restrictive. The commenter also stated that "and" after type rating should be "or." The FAA concurs that a type rating requirement is somewhat restrictive, therefore "type" is deleted and replaced by "category and class" which is less restrictive, and "and" is replaced with "or."

Another commenter recommended that the proposed flush paragraph at the end of § 121.425(a)(2) be revised by inserting "on the same aircraft" before "may complete." The FAA does not concur with the comment since current § 121.437 would make this change redundant. Accordingly, the proposal is adopted with the changes noted above.

Proposal 5-5. No unfavorable comments were received on proposed § 121.427(d)(1). Accordingly, the proposal is adopted without substantive change.

Proposal 5-6. No unfavorable comments were received on proposed § 121.427(d)(2)(ii). Accordingly, the

proposal is adopted without substantive change.

Proposal 5-7. No unfavorable comments were received on proposed § 121.433a. Accordingly, the proposal is adopted without substantive change.

Proposal 5-8. Two commenters objected to proposed § 121.434(e) stating that requiring all flight attendants to be fully qualified would impose an economic burden on the air carrier. Another commenter proposed that up to fifty percent of the required flight attendants on a flight should be allowed to receive operating experience. Since airline flights frequently depart with flight attendant seats unoccupied, the FAA believes that these seats could be used by flight attendants who are not a part of the required crew complement, in meeting the operating experience requirements of this part. Accordingly, the proposal is adopted without substantive change.

Proposal 5-9. One commenter requested that proposed § 121.437(b) be deleted as inflationary, costly, and redundant, and further stated it would not increase safety.

The FAA believes that the proposal would not be inflationary, costly, or redundant as most second in command pilots currently hold the appropriate category and class rating, and that a pilot should not act as second in command on a turbojet or large aircraft with only a rotorcraft, glider, or lighter than air category rating.

This proposal would also be in keeping with the second in command requirements of § 61.55(a)(1) which requires appropriate category and class ratings. Accordingly, proposed § 121.437 is adopted without substantive change.

Proposal 5-10. One commenter objected to proposed § 121.439 stating the recency of experience requirements must be satisfied in the aircraft until an approved system of visual simulated landings are in use. The FAA believes that visual simulators that include the takeoff and landing maneuvers will be approved for operational use in the near future. Each simulator will be individually evaluated by the FAA before being approved for use under this part. The 24 calendar months in § 121.439(b) has been deleted as the 24 calendar months would be in conflict with § 121.441. Accordingly, the proposal is adopted with the change noted above.

Proposal 5-11. No unfavorable comments were received on proposed § 121.441. Accordingly, the proposal is adopted without substantive change.

Proposal 5-12. One commenter requested that proposed § 121.543 be revised to read "seat belt and shoulder harnesses fastened." The FAA does not believe that flight crewmembers should be required to wear shoulder harnesses during the en route phase of

flight, and that § 121.311(e) provides for adequate use of the shoulder harnesses. Accordingly, proposed § 121.543 is adopted without substantive change.

Proposal 5-13. One commenter requested proposed § 121.545 be revised to read "No pilot in command may knowingly allow," as they believe that the pilot in command should not be responsible for determining the currency of other assigned flight crewmembers. The FAA does not agree since adding the word "knowingly" could weaken this proposal, as it would not necessarily hold the pilot in command responsible for allowing an unqualified person to manipulate the controls. Accordingly, the proposal is adopted without change.

Proposal 5-14. Two commenters objected to proposed § 121.571(a)(1)(iii), stating that the use of the seat belt can be sufficiently depicted on the passenger briefing card and a demonstration and oral briefing should not be required. The FAA does not agree, and believes that passengers should be orally briefed on how to operate the seat belts. Investigation of past accidents indicates that passengers may have died in their seats as a result of not knowing how to operate their seat belts. Numerous air lines are currently providing both demonstrations and briefings to passengers on how to operate seat belts. In keeping with § 121.311 the word "seat" has been replaced with the word "safety". Accordingly, proposed § 121.571(a)(1)(iii) is adopted without substantive change.

One commenter objected to proposed § 121.571(a)(1)(iv) stating that the flotation means can be depicted on the briefing card. Another commenter requested that proposed § 121.571(a)(1)(iv) be deleted, and that language similar to § 121.573(d) be used. The FAA does not agree. As stated above, the FAA believes that an oral briefing of passengers enhances safety, and would provide passengers with information on required life saving equipment readily available to the passengers since almost all flights involve the possibility of overwater operations. Accordingly, proposed § 121.571(a)(1)(iv) is adopted without substantive change.

Proposal 5-15. One commenter requested that proposed § 121.573(a) be revised by adding after the words, "life preservers" and the following, "other flotation means such as seat cushions and life rafts, slide/rafts (including their removal form packages/compartments) . . . include secondary methods of inflation of life preservers." The FAA believes that such an addition is unnecessary as § 121.571(a)(1)(iv) requires briefing on these items. Accordingly, proposed § 121.573(a) is adopted without substantive change.

Proposal 5-16. One commenter requested that proposed § 121.576 be re-

vised by adding the words "and in-flight service" after the word "galley". The commenter believed this change was required to further clarify what is intended to be stowed, and that this change would include such items as plug-in tray tables and portable fold-up shelves for use in galleys. The FAA does not agree as these items are considered galley equipment. Accordingly, proposed § 121.576 is adopted without substantive change.

Proposal 5-17. One commenter objected to the proposal to amend § 121.581(b) in that it would allow an FAA inspector to displace an assigned crewmember on certain aircraft, thereby interfering with the normal crew operation procedures. The FAA does not agree. The FAA, in carrying out its inspection responsibilities, must be able to select the position on the flight deck of an aircraft where the activities of the crewmembers may best be observed. While such an inspector might displace an assigned crewmember, the inspector would not displace a required crewmember, or adversely affect safety. The current rule requires the forward observer's seat to be made available for use by the inspector, whereas the proposal would allow flexibility in the selection of the observer's seat during en route inspections. Accordingly, proposed § 121.581 is adopted without substantive change.

AMENDMENT TO § 121.601

This amendment was not a part of the Operations Review, but was discussed in Amendment 121-134 adopted on May 19, 1977 (42 FR 27542, May 31, 1977). The amendment to § 121.601 is in response to an Air Transport Association (ATA) petition dated November 1, 1977, and an amendment to that petition dated December 8, 1977.

ATA's petition stated that if § 121.601(b) was interpreted literally, the dispatcher would be required to provide the pilot in command with all available weather reports and forecasts and that this would deluge the pilot in command with unnecessary information. ATA also stated that the preamble to FAR Amendment 121-134 indicated the FAA's intent of the rule by stating "that only the information which may affect safety of flight must be furnished to the pilot in command."

The FAA agrees with the petitioner. The intent of this amendment was to require only that weather information which is pertinent to flight operations be furnished to flight crews by the dispatcher. The phrase intended to accomplish that purpose but which was inadvertently omitted in the amendment to § 121.601(b) was "that may affect the safety of flight". Accordingly, § 121.601(b) is amended by inserting the phrase "that may affect the safety of flight" after the phrase "of weather phenomena."

Proposal 5-18. No unfavorable comments were received on the proposed deleting and reserving § 121.633. Accordingly, the proposal is adopted without substantive change.

Proposal 5-19. No unfavorable comments were received on proposed § 121.635. Accordingly, the proposal is adopted without substantive change.

Proposal 5-20. No unfavorable comments were received on proposed § 121.645. Accordingly, the proposal is adopted without substantive change.

Proposal 5-21. No unfavorable comments were received on proposed § 121.657. Accordingly, the proposal is adopted without substantive change.

Proposal 5-22. No unfavorable comments were received on proposed § 121.683(c). Accordingly, the proposal is adopted without substantive change.

DRAFTING INFORMATION

The principal authors in this document are W. J. Biron, Flight Standards Service, and R. B. Elwell, Office of the Chief Counsel.

ADOPTION OF THE AMENDMENTS

Accordingly, Part 121 of the Federal Aviation Regulations (14 CFR Part 121) is amended as follows, effective June 26, 1978.

§ 121.3 [Amended]

By amending § 121.3 as follows:

1. In paragraph (a) by inserting "and (h)" between "(b)" and "of".
2. In paragraph (c) by inserting "and (h)" between "(d)" and "of".
3. In paragraph (e) by deleting "(a) or (c)" and inserting "(a), (c), or (h)".

5-1. By revising the introductory clause of § 121.383(a) to read as follows:

§ 121.383 Airman: limitations on use of service.

(a) No certificate holder may use any person as an airman nor may any person serve as an airman unless that person—

• • • • •

5-2. By amending § 121.409 by: (a) Deleting the word "and" at the end of paragraph (b)(2) and substituting the word "or"; (b) redesignating paragraph (b)(3) as (b)(4); and (c) adding a new paragraph (b)(3) to read as follows:

§ 121.409 Training courses using airplane simulators and other training devices.

• • • • •

(b)
(3) Provides line-oriented training that—

- (i) Utilizes a complete flight crew;
- (ii) Includes at least the maneuvers and procedures (abnormal and emergency) that may be expected in line operations;

(iii) Is representative of the flight segment appropriate to the operations being conducted by the certificate holder, and

5-3. By amending § 121.417 by: (a) At the end of paragraph (b)(2)(ii) by deleting the "and"; (b) at the end of paragraph (b)(2)(iii) by deleting the "." and adding "; and"; (c) amending paragraph (b)(3)(ii); (d) adding new paragraphs (b)(2)(iv), and (b)(4); and (e) revising paragraph (c), to read as follows:

§ 121.417 Crewmember emergency training.

(b) * * *

(iv) Emergency exits in the emergency mode with the evacuation slide/raft pack attached (if applicable), with training emphasis on the operation of the exits under adverse conditions.

(3) * * *

(ii) Fire in flight or on the surface, and smoke control procedures with emphasis on electrical equipment and related circuit breakers found in cabin areas including all galleys, service centers, lifts, lavatories and movie screens;

(4) Review and discussion of previous aircraft accidents and incidents pertaining to actual emergency situations.

(c) Each crewmember must perform at least the following emergency drills and actually operate the following emergency equipment during initial training and once each 24 calendar months during recurrent training on each type aircraft in which they are to serve, except that during recurrent training each crewmember may participate in the deployment and use of emergency evacuation slides. Alternate recurrent training periods required by § 121.433(c) may be accomplished by approved pictorial presentation or demonstration:

(1) Each type of emergency exit in the normal and emergency modes, including the actions and forces required in the deployment and use of emergency evacuation slides.

(2) Each type of fire extinguisher.

(3) Each type of emergency oxygen system.

(4) Emergency evacuation.

(5) Donning, use, and inflation of individual flotation means, if applicable.

(6) Ditching, if applicable, including but not limited to, as appropriate:

(i) Cockpit preparation and procedures.

(ii) Crew coordination.

(iii) Passenger briefing and cabin preparation.

(iv) Donning and inflation of life preservers.

(v) Removal from the airplane and inflation of each type of life raft.

(vi) Transfer of each type of slide/raft pack from one door to another.

(vii) Deployment, inflation and detachment from the aircraft of each type of slide/raft pack.

(viii) Use of life-lines.

(ix) Boarding of passengers and crew into a raft or a slide/raft pack.

5-4. By amending § 121.425(a)(2) by adding a flush paragraph at the end of it to read as follows:

§ 121.425 Flight engineers: initial and transition flight training.

(a) * * *

(2) * * *

(iii) * * *

Flight engineers possessing a commercial pilot certificate with an instrument, category and class rating, or pilots already qualified as second in command and reverting to flight engineer, may complete the entire flight check in an approved airplane simulator.

5-5. By revising the introductory text of § 121.427(d)(1) to read as follows:

§ 121.427 Recurrent training.

(d) * * *

(1) For pilots, flight training in maneuvers and procedures set forth in Appendix F to this Part, or in a flight training program approved by the Administrator, except as follows—

5-6. By revising § 121.427(d)(2)(ii) to read as follows:

§ 121.427 Recurrent training.

(d) * * *

(2) * * *

(ii) The flight check, other than the preflight inspection, may be conducted in an airplane simulator or other training device. The preflight inspection may be conducted in an airplane, or by using an approved pictorial means that realistically portrays the location and detail or preflight inspection items and provides for the portrayal of abnormal conditions. Satisfactory completion of an approved line-oriented simulator training program may be substituted for the flight check.

5-7. By amending § 121.433a(a) and adding a new paragraph (c) to read as follows:

§ 121.433a Training requirements: handling and carriage of dangerous articles and magnetized materials.

(a) No certificate holder may use any person to perform and no person may perform, any assigned duties and responsibilities for the handling or carriage of dangerous articles and magnetized materials governed by Title 49 CFR, unless within the preceding 12 calendar months that person has satisfactorily completed training in a program established and approved under this subpart which includes instructions regarding the proper packaging, marking, labeling, and documentation of dangerous articles and magnetized materials, as required by Title 49 CFR and instructions regarding their compatibility, loading, storage, and handling characteristics. A person who satisfactorily completes training in the calendar month before, or the calendar month after, the month in which it becomes due, is considered to have taken that training during the month it became due.

(c) A certificate holder operating in a foreign country where the loading and unloading of aircraft must be performed by personnel of the foreign country, may use personnel not meeting the requirements of paragraphs (a) and (b) of this section if they are supervised by a person qualified under paragraphs (a) and (b) of this section to supervise the loading, offloading and handling of hazardous materials.

5-8. By revising § 121.434(e) to read as follows:

§ 121.434 Operating experience.

(e) A flight attendant must, for at least 5 hours, perform the assigned duties of a flight attendant under the supervision of a flight attendant supervisor qualified under this part who personally observes the performance of these duties. However, operating experience is not required for a flight attendant who has previously acquired such experience on any large passenger carrying airplane of the same group, if the certificate holder shows that the flight attendant has received sufficient ground training for the airplane in which the flight attendant is to serve. Flight attendants receiving operating experience may not be assigned as a required crewmember.

5-9. By revising § 121.437(b) to read as follows:

§ 121.437 Pilot qualification: certificates required.

(b) No certificate holder may use nor may any pilot act as a pilot in a capacity other than those specified in paragraph (a) of this section unless the pilot holds at least a commercial pilot certificate with appropriate category and class ratings for the aircraft concerned, and an instrument rating.

5-10. By revising § 121.439 to read as follows:

§ 121.439 Pilot qualification: recent experience.

(a) No certificate holder may use any person nor may any person serve as a required pilot flight crewmember, unless within the preceding 90 days, that person has made at least three takeoffs and landings in the type airplane in which that person is to serve. The takeoffs and landings required by this paragraph may be performed in a visual simulator approved under § 121.407 to include takeoff and landing maneuvers.

(b) A required pilot flight crewmember who has not met the requirements of paragraph (a) of this section, may reestablish recency of experience by making at least three takeoffs and landings under the supervision of a check airman, in accordance with the following:

(1) At least one takeoff must be made with a simulated failure of the most critical powerplant.

(2) At least one landing must be made from an ILS approach to the lowest ILS minimums authorized for the certificate holder.

(3) At least one landing must be made to a complete stop.

(c) A required pilot flight crewmember who performs the maneuvers prescribed in paragraph (b) of this section in a visual simulator must—

(1) Have previously logged 100 hours of flight time in the same type airplane in which he is to serve;

(2) Be currently qualified in another airplane of the same group; and

(3) Be observed on the first two landings made in operations under this part by an approved check airman who acts as pilot in command and occupies a pilot seat. The landings must be made in weather minimums that are not less than those contained in the certificate holder's operations specifications for Category I Operations, and must be made within 45 days following completion of simulator training.

(d) A check airman who observes the takeoffs and landings prescribed in paragraphs (b) and (c)(3) of this section, shall certify that the person being observed is proficient and qualified to perform flight duty in operations under this part, and may require

any additional maneuvers that are determined necessary to make this certifying statement.

5-11. By revising § 121.441 (a)(2) and (d)(3) to read as follows:

§ 121.441 Proficiency checks.

(a) * * *

(2) For all other pilots—

(i) Within the preceding 24 calendar months either a proficiency check or the line-oriented simulator training course under § 121.409; and

(ii) Within the preceding 12 calendar months, either a proficiency check or any simulator training course under § 121.409.

(d) * * *

(3) The pilot being checked is currently qualified for operations under this part in the particular type airplane and flight crewmember position or has, within the preceding six calendar months, satisfactorily completed an approved training program for the particular type airplane.

5-12. By revising § 121.543 to read as follows:

§ 121.543 Flight crewmembers at controls.

(a) Except as provided in paragraph (b) of this section, each required flight crewmember on flight deck duty must remain at the assigned duty station with seat belt fastened while the aircraft is taking off or landing, and while it is en route.

(b) A required flight crewmember may leave the assigned duty station—

(1) If the crewmember's absence is necessary for the performance of duties in connection with the operation of the aircraft;

(2) If the crewmember's absence is in connection with physiological needs; or

(3) If the crewmember is taking a rest period, and relief is provided—

(i) In the case of the assigned pilot in command, by a pilot qualified to act as pilot in command who holds an airline transport certificate and an appropriate type rating; and

(ii) In the case of the assigned second in command, by a pilot qualified to act as second in command of that aircraft during en route operations. However, the relief pilot need not meet the recent experience requirements of § 121.439(b).

5-13. By revising the introductory paragraph of § 121.545 to read as follows:

§ 121.545 Manipulation of controls.

No pilot in command may allow any person to manipulate the controls of an aircraft during flight nor may any

person manipulate the controls during flight unless that person is—

5-14. By revising § 121.571(a)(1)(iii), and adding new § 121.571(a)(1)(iv) to read as follows:

§ 121.571 Briefing passengers before takeoff.

(a) * * *

(1) * * *

(iii) The use of safety belts including instructions on how to fasten and unfasten the safety belt.

(iv) The location and use of any required emergency flotation means.

5-15. By revising § 121.573(a) to read as follows:

§ 121.573 Briefing passengers: extended overwater operations.

(a) In addition to the oral briefing required by § 121.571(a), each certificate holder operating an airplane in extended overwater operations shall ensure that all passengers are orally briefed by the appropriate crewmember on the location and operation of life preservers, liferafts, and other flotation means, including a demonstration of the method of donning and inflating a life preserver.

5-16. By revising § 121.576 to read as follows:

§ 121.576 Retention of items of mass in passenger and crew compartments.

The certificate holder must provide and use means to prevent each item of galley equipment and each serving cart, when not in use, and each item of crew baggage, which is carried in a passenger or crew compartment from becoming a hazard by shifting under the appropriate load factors corresponding to the emergency landing conditions under which the airplane was type certificated.

§ 121.581 [Amended]

5-17. By amending § 121.581 as follows:

a. By deleting from the heading the words "air carriers".

b. By amending paragraph (a) by deleting the words "air carrier" in the first sentence, and inserting "certificate holder" and by deleting the words "air transportation" and inserting "air commerce."

c. By amending paragraph (b) by deleting the words "must be made available to the Administrator" and substituting the words "or the observer's seat selected by the Administrator must be made available when complying with paragraph (a) of this section".

§ 121.601 [Amended]

By amending § 121.601(b) by inserting the phrase "that may affect the safety of flight" after the phrase "of weather phenomena".

§ 121.633 [Reserved]

5-18. By deleting and reserving § 121.633.

5-19. By revising § 121.635 to read as follows:

§ 121.635 Dispatch to and from refueling or provisional airports: domestic and flag air carriers.

No person may dispatch an airplane to or from a refueling or provisional airport except in accordance with the requirements of this part applicable to dispatch from regular airports and unless that airport meets the requirements of this part applicable to regular airports.

5-20. By amending § 121.645 by—

- a. Redesignating paragraphs (b), (c), and (d) as (c), (d), and (e) respectively;
- b. Revising paragraph (a); and
- c. Adding a new paragraph (b) to read as follows:

§ 121.645 Fuel supply: turbine-engine powered airplanes, other than turbo-propeller; flag and supplemental air carriers and commercial operators.

(a) Any flag air carrier operation

within the 48 contiguous United States and the District of Columbia may use the fuel requirements of § 121.639.

(b) For any flag air carrier, supplemental air carrier, or commercial operator operation outside the 48 contiguous United States and the District of Columbia, unless authorized by the Administrator in the operations specifications, no person may release for flight or take off a turbine-engine powered airplane (other than a turbo-propeller powered airplane) unless, considering wind and other weather conditions expected, it has enough fuel—

(1) To fly to and land at the airport to which it is released;

(2) After that, to fly for a period of 10 percent of the total time required to fly from the airport of departure to, and land at, the airport to which it was released;

(3) After that, to fly to and land at the most distant alternate airport specified in the flight release, if an alternate is required; and

(4) After that, to fly for 30 minutes at holding speed at 1,500 feet above the alternate airport (or the destination airport if no alternate is required) under standard temperature conditions.

§ 121.657 [Amended]

5-21. a. By amending § 121.657(c) by deleting the second and third sentences from this paragraph.

b. By amending § 121.657(d) by deleting the words "domestic and supplemental air carriers and commercial operators" from the heading.

5-22. By adding a new paragraph (c) to § 121.683 to read as follows:

§ 121.683 Crewmember and dispatcher record.

* * * * *

(c) Computer record systems approved by the Administrator may be used in complying with the requirements of paragraph (a) of this section.

(Secs. 313, 314, 601 through 610, Federal Aviation Act of 1958 (49 U.S.C. 1354, 1355, 1421 through 1430); Sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)).)

NOTE.—The Federal Aviation Administration has determined that this document does not contain a major proposal requiring preparation of an Economic Impact Statement Under Executive Order 11821, as amended by Executive Order 11949, and OMB Circular A-107.

Issued in Washington, D.C., on May 15, 1978.

LANGHORNE BOND,
Administrator.

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