

**DEPARTMENT OF TRANSPORTATION****Federal Aviation Administration****14 CFR Parts 121 and 135**

[Docket No. 23634; Amdt. Nos. 121-185 and 135-19]

**Flight Time Limitations and Rest Requirements**

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule.

**SUMMARY:** This final rule amends flight time limitations and rest requirements for flight crewmembers engaged in air transportation. The rule is based on recommendations of a Regulatory Negotiation Advisory Committee composed of persons who represent the interests affected by the flight time rules. The rule clarifies certain requirements that have had voluminous interpretations and updates certain requirements in relation to current operating conditions.

**DATES:** Effective date: October 1, 1985. Certificate holders may comply on the effective date or on the first day of any calendar month after the effective date or on the final compliance date of this rule.

Final compliance date: October 1, 1986.

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**SUPPLEMENTARY INFORMATION:****Background**

Air crewmember fatigue is a fundamental factor of flight safety. The flight time limitation rules regulate the number of flight hours a flight crewmember may be scheduled for in a year, month, week, and day and the frequency and length of rest periods that a flight crewmember must be given, in the interest of both individual and public safety. The flight time limitation rules that apply to major scheduled airlines—those most familiar to the traveling public—and to other airlines operating large transport category airplanes are contained in Part 121 of the Federal Aviation Regulations (FAR) (14 CFR Part 121). The flight time limitation rules that apply to the scheduled air carriers that operate airplanes of 30 or fewer seats and to air taxi operations are contained in Part 135 of the FAR (14 CFR Part 135).

The flight time limitation rules in both Parts 121 and 135 have remained virtually unchanged for the past 30 years despite significant changes in the aviation transportation industry. The most significant reasons for amending the rules are that—(1) rest requirements under Part 121 have been extremely complicated and have required thousands of pages of interpretation over the past 30 years; (2) rest requirements have been inflexible, preventing air carriers from adjusting schedules and resulting in a number of exemption requests; and (3) recent increases in short-duration, passenger-carrying operations (commonly called regional operations) have prompted recommendations (reflected in the Airline Deregulation Act of 1978) that Part 135 rules provide a level of safety that is, to the maximum feasible extent, equivalent to the level of safety provided by Part 121 rules.

The FAA has recognized for several years that the flight time rules need to be clarified and updated and on several occasions has proposed rules to correct problems. Because of the complexity of the rules and the variety of interested persons, none of the proposals adequately resolved the problems to the satisfaction of the affected parties. The FAA, therefore, initiated an innovative approach called Regulation by Negotiation. The FAA created an Advisory Committee under the Federal Advisory Committee Act. The committee included persons representing flight crewmembers, air carriers, air taxis, helicopter operators, the FAA, and a consumer interest group. Initially, the committee met on seven occasions for a total of 16 days. It gave serious consideration to various proposals and justifications submitted by its members and succeeded in narrowing the differences among interested parties and in reaching a substantial agreement on some issues.

As a result of the committee's deliberations, the FAA drafted a Notice of Proposed Rulemaking (Notice 84-3), which reflected the committee's discussion of and agreements on certain issues, in addition to identifying five issues which were not resolved by the committee at the time of publication (49 FR 12136, March 28, 1984). The FAA and the Advisory Committee reviewed comments received on the NPRM, and on September 11, 1984, the Advisory Committee convened to discuss issues which needed to be addressed in the final rule. The final rule is the result of FAA consideration of all comments on the NPRM and of the final deliberations of the Advisory Committee.

The Advisory Committee met under the direction of Nicholas Fidandis who acted as convener/mediator. The regulatory negotiation process was supported by the Office of the Secretary of Transportation, the Vice President's Office, The Office of Management and Budget, and the Administrative Conference of the United States. The support of those offices was appreciated. In the obviously complex and controversial area of flight and duty time limitations, the regulatory negotiation process was essential in achieving the highly successful result which is apparent in these amendments. It allowed a thorough discussion of all issues with representatives of all interests. At a minimum, the process acted to substantially narrow the number of differences between the parties and, even where differences remained, acted to lessen the contentiousness of the parties regarding those differences. The process also highlighted for the FAA those areas in which a compromise position was possible that the parties could accept even if they could not concur with it publicly. The end result, in the FAA's view, is a final rule that accomplishes the objectives of the rulemaking and addresses the concerns expressed by all parties. An additional benefit is that the parties were made more sensitive to the competing interests of the other parties. As a result of this process, a better compliance attitude should result. The FAA wishes to express its appreciation for the cooperation and untiring efforts of all those who participated in the process either as committee members or commenters.

**Intent of the Rule**

The Notice of Intent for the formation of the Advisory Committee (48 FR 21339, May 12, 1983) contained a lengthy list of issues that could be addressed by the committee. However, as the committee began its deliberations, it became apparent that not all the issues could be resolved in a reasonable time. Therefore, the committee began to focus on the following major objectives:

- To address the series-of-flights problem in Part 121, thereby resolving many interpretation problems;
- To correct an inadequacy in current Part 121, domestic air carriers rules, for flight crewmembers scheduled to fly 8 hours or less in 24 consecutive hours (current rest requirements apply only if more than 8 hours is scheduled) and to allow greater scheduling flexibility;
- To upgrade the requirements for all operations in Part 135, particularly scheduled operations; and

- To incorporate into the rule certain exemptions that have wide applicability.

Both the proposed rule and the final rule have kept within the limits of the FAA's intention and the deliberations of the committee.

The rule accomplishes the intended objectives in the following way:

- It establishes flexible daily rest requirements in Part 121 for domestic operations and in § 135.265 for scheduled operations, in accordance with the number of scheduled flight hours.
- It establishes cumulative weekly (every 7 days), monthly, and annual flight time limits for Part 135 to assure a level of safety, to the maximum feasible extent, equivalent to that under Part 121;
- It codifies in Part 135 several exemptions: the reduction of a 10-hour rest under certain conditions, the extension of flight time with augmented crews, and the special limitations needed for helicopter medical emergency services.

#### Comments on the Proposed Rule

During the 45-day comment period, the FAA received over 140 comments in response to Notice 84-3. The comments represented the views of individuals, airline organizations, labor organizations, research institutions, public interest groups, and other government agencies. Most comments expressed agreement with the need for improving the regulations and commended the FAA for the rulemaking effort. Airline organizations generally favored the proposal while some labor organizations, research institutions, public interest groups, individual pilots, and the National Transportation Safety Board expressed reservations about certain proposed changes. In general, the tone and the length of the comments received indicated that the proposed rule was far more acceptable than the last several FAA proposals.

A number of commenters stated that the 45-day comment period was not long enough for them to respond as fully as they would have liked. According to certain of these comments, one group particularly affected by the 45-day comment time was flight crewmembers who are not represented by unions and, therefore, were not formally represented at the Advisory Committee sessions. According to these comments, because of the busy work schedule of these flight crewmembers and their lack of an organizational unit to represent their interests, 45 days in which to comment was not sufficient. In addition, comments pointed out that the proposed rule was highly complex and that a comment period of 90 days should have

been given after the negotiation meetings to allow for a full consideration of the complex proposal. In response to these comments, the FAA points out that three factors determined the length of the comment period. First, all of the Advisory Committee meetings were open to the public. Interested parties, in addition to the representatives who served on the committee, were given an opportunity to express their concerns to the committee. A number of pilots, not represented by organizations on the committee, made oral presentations to the committee at the September 11, 1984 meeting, which occurred after the close of the comment period. The FAA considered these presentations, as well as the written comments submitted by non-unionized pilots, in the drafting of the final rule. Second, the majority of the parties most affected by the rulemaking were represented on the committee. Their views were heard during the negotiating sessions, and their written comments were, to a large extent, statements of their negotiating positions. Third, the scope of the rulemaking had been narrowed from the Notice of Intent in order to correct as quickly as possible those problems most in need of resolution. Thus, the issues for comment were relatively few. Given all of the above factors a 45-day comment period was considered sufficient. Comments which were received after the comment period closed were considered under 14 CFR 11.47 which provides that late filed comments are considered, in so far as possible, without incurring expense or delay.

Most of the comments received fall into one of three categories: (1) those which focus on particular provisions of the rule, such as the length of minimum rest and flight time limits between rests; (2) those which indicate a misunderstanding about certain provisions of the rule, such as the look-back provisions for required rest based on the amount of scheduled flight time during a preceding 24-hour period; and (3) those which focus on issues that are beyond the scope of this rulemaking. Comments that focus on particular provisions or that indicate a misunderstanding about certain provisions are discussed under the appropriate headings. Comments which raise issues beyond the scope of this rulemaking are discussed below.

A number of comments objected to the rule on the grounds that it does not amend flag and supplemental air carrier rules which have problems similar to those of domestic operations rules. In answer, the objective of revising the flag and supplemental rules was considered

by the Advisory Committee, and some committee proposals included flag or supplemental revisions. However, because of the overriding importance of clarifying the domestic rules, revisions to flag and supplemental rules are not addressed at this time.

A number of comments objected to the proposed rule because it does not take into account recent bio-medical research or factors affecting pilot fatigue. Some of these comments include copies of bio-medical studies. A representative of the Air Line Pilots Association also made a presentation to the committee on the status of the relevant scientific research. Again, because of the overriding importance of clarifying and simplifying the current rules, broader revisions which could alter the overall structure of the FAR on flight time limits and rest requirements could not be considered at this time. The FAA intends to continue its consideration of fatigue studies and is awaiting completion of the National Aeronautics and Space Administration's study on the operational significance of pilot fatigue and circadian desynchronization. The study report is expected to be available for review in the latter part of 1986. If the report establishes a quantifiable relationship between fatigue and job performance and identifies specific criteria which support an amendment of the flight time limitations and rest requirements, the FAA would then consider additional rulemaking. Presently, the rules adopted by these amendments protect against acute (short-term) fatigue by requiring specific rest periods in the 24 hours preceding the completion of scheduled flight time and protect against chronic or long-term fatigue by setting cumulative flight time limits.

A number of commenters pointed out that the proposed rule does not cover flight attendants and that regulations should be enacted that would cover flight attendants. The issue of including flight attendants is beyond the scope of this rulemaking. The Association of Flight Attendants presented a Petition for Rulemaking to the FAA on this issue, a summary of which was published in the Federal Register (50 FR 6185, February 14, 1985). Flight and duty time for flight attendants will be considered by the FAA as a separate issue.

One concern raised by a number of commenters is that the current rule and the proposed rule regulate only flight time and rest periods but do not regulate duty time. According to commenters, the proposed rule should specifically limit the duty period to protect flight crewmembers from fatigue. Again, the

FAA wishes to emphasize that these changes to Part 121 focused on clarification and simplification with the one exception of requiring a rest for less than 8 hours of flight time. To institute a limit on duty, beyond the inherent limits necessitated by the required rest, would be outside the scope of this rulemaking. However, adequate and timely rest periods effectively limit the length of duty periods.

#### The Rule—Parts 121 and 135

##### General Issues

Certain important issues, some of which were identified as unresolved issues in the proposed rule and some of which arise from the comments to the proposed rule, involve changes in both Parts 121 and 135. These issues and comments will be discussed in the following paragraphs. The general issues include: (1) applicability, (2) cumulative flight time limits, (3) daily flight time limits, (4) daily rest requirements, (5) actual flight time vs. scheduled flight time, (6) flight-crewmember responsibility, and (7) dual operations.

Specific changes to the sections involved and comments about these changes are discussed in the *Section by Section* division of this preamble.

##### Applicability

The dividing line between Part 121 and Part 135 is provided by Special Federal Aviation Regulation (SFAR) 38-2 (50 FR 23941; June 7, 1985). Operations of aircraft with more than 30 passenger seats or a payload capacity of more than 7,500 pounds must be conducted under Part 121. Operations of aircraft with a lesser seating configuration or payload capacity must be conducted under Part 135. This rule continues the 30 passenger/7,500 pound payload distinction as the major dividing line between Part 121 and Part 135, and it makes some additional distinctions within Part 135.

Part 135 contains two sets of cumulative flight time limits and daily rest requirements, one for scheduled operations and another for unscheduled operations. Scheduled operations that must be conducted under § 135.265 are defined in § 135.261(b) as passenger-carrying operations that are conducted in accordance with a published schedule of at least five round trips per week on at least one route between two or more points. The schedule must include dates or times (or both) and must be openly advertised or otherwise made available to the public. All other Part 135 certificate holders are given the option of complying with the rules applicable to

scheduled operations in § 135.265 if they obtain an amendment to their operations specifications.

Unscheduled operations, except for helicopter hospital emergency medical evacuation service (HEMES) operations, are conducted under §§ 135.267 and 135.269. These operations include unscheduled air taxi operations and commercial operations. The rule also permits Part 135 scheduled passenger and cargo-carrying operations in Alaska to be conducted under these sections. Helicopter hospital emergency medical evacuation services (HEMES) are conducted under § 135.271.

While this rulemaking clarifies Part 121 rest requirements, it also upgrades the requirements for all Part 135 operations, particularly scheduled operations. By separating Part 135 into scheduled and unscheduled operations, the FAA is able to establish acceptable cumulative flight time limits for operations that under current rules have only daily flight time limits.

##### Cumulative Flight Time Limits

Cumulative flight time limits, that is weekly, monthly, and annual limits for Part 121 domestic air carrier operations and Part 135 scheduled operations, and quarterly, biquarterly and annual limits for Part 135 unscheduled operations, are meant to protect the flight crewmember against chronic or long-term fatigue: Weekly limits in the context of this preamble refer to limits over any 7 consecutive days, not a calendar week. A quarter refers to the four periods of 3 months each, beginning in January, April, July, and October.

The annual, monthly, and weekly flight time limits for Part 121 domestic operations will remain the same as in the current rule: 1,000 hours in any calendar year, 100 hours in any calendar month, and 30 hours in any seven consecutive days (§ 121.471(a)). Newly imposed annual, monthly, and weekly flight time limits for Part 135 scheduled operations will be slightly less restrictive: 1,200 hours in any calendar year, 120 hours in any calendar month, and 34 hours in any seven consecutive days (§ 135.265(a)). The new quarterly, biquarterly, and annual limits for Part 135 unscheduled operations will be the least restrictive: 1,400 hours in any calendar year, 800 hours in any two consecutive calendar quarters, and 500 hours in any calendar quarter (§§ 135.267, 135.269, and 135.271).

One commenter objected to the Part 121 monthly flight time limit of 100 hours in any calendar month on the basis that Decision 83, which was incorporated into law, is still in force. Decision 83 was an announcement of the National

Labor Board on May 10, 1934, which stated that 85 hours a month would be the flight time limitation for pilots of five airline companies involved in a dispute. Decision 83 was incorporated into Federal law in the Civil Aeronautics Act of 1938, and reenacted in both the Federal Aviation Act of 1958 and the Airline Deregulation Act of 1978. Decision 83 is incorporated into Title IV of the Federal Aviation Act, which governs economic regulation, not into Title VI, which affects safety regulations. The economic decisions in Decision 83 have never carried over to safety rules such as the monthly flight time limit.

A number of commenters objected to the less restrictive limits for Part 135 operators on the basis that the FAA should require the same flight time limits as Part 121 domestic operations for all Part 135 operations. These commenters reasoned that what is considered safe for one type of operation should be considered safe for all. Certain factors, however, were considered in establishing the new Part 135 flight time limits. Part 121 limits for large aircraft have been established for more than 30 years. The large air carriers are accustomed to operating within these restrictions and have maintained a high level of safety. Part 135 scheduled and unscheduled operators have had no cumulative weekly, monthly, or annual flight time limits, only daily limits of 10 hours for a two-pilot crew and 8 hours for a one-pilot crew. Theoretically, the current rule allows a two-pilot crew to fly 70 hours of flight per week and 3,640 hours in 52 weeks. The new limits for both scheduled and unscheduled operations substantially reduce flight time in order to reduce fatigue and provide a level of safety equivalent to, to the maximum feasible extent, the level of safety in Part 121.

The Airline Deregulation Act of 1978 requires the Administrator to "impose requirements upon . . . commuter air carriers to assure that the level of safety provided to persons traveling on such commuter air carriers is, to the maximum feasible extent, equivalent to the level of safety provided to persons traveling" on Part 121 air carriers. The FAA's action in establishing, for the first time, weekly, monthly, and annual flight time limits for Part 135 scheduled operations is consistent with the "maximum feasible extent" requirement.

Thirty-seven commenters, primarily operators, a few pilots, and a state government, objected to the proposed limit of 32 hours of flight time in any 7 consecutive days in § 135.265(a). They claimed that the weekly limit would

have a significant cost impact because of the additional bookkeeping requirements and the need to hire additional flight crewmembers. Examples from schedules submitted by operators as part of their comments showed that these operators were scheduling 1 or 2 hours of flight in excess of the proposed 32-hour weekly limit. Commenters also pointed out that during peak periods, seasonal operators would be forced to hire additional flight crewmembers. This would not only be costly to the operators but also to flight crewmembers who need the extra hours of flight time during peak seasons to compensate for wages lost during slack seasons. The commenters believed that from a safety standpoint a weekly limit is unnecessary; monthly and annual limits or only monthly limits are a sufficient safeguard against fatigue.

Based on these comments and considering that the new weekly flight time limit is considerably more restrictive than the old Part 135 limits, the FAA has decided to increase the weekly limit from the proposed 32 hours to 34 hours, which is within the range of weekly flight hour limitations discussed during the regulatory negotiation process. The increase should accommodate those air carriers who submitted schedules showing flight times in excess of 32 hours and should also increase flexibility for seasonal operators and crewmembers. However, the FAA is unwilling to eliminate the weekly flight time limitation.

The FAA points out that weekly, monthly, and annual limits work in conjunction with each other and with daily required rests and flight hour limitations between rests. For example, for Part 135 scheduled operators, an annual limit of 1200 hours if divided by 12 months allows 100 flight hours a month. However, a Part 135 pilot could accumulate a maximum of 120 flight hours in a month if necessary. In the same way, the monthly limit of 120 hours if divided by 4 weeks allows for 30 flight hours each week. However, a Part 135 pilot could accumulate a maximum of 34 flight hours per week for the first 3 weeks, but could not exceed 18 flight hours during the remainder of the calendar month. Thus the weekly, monthly, and annual flight hour limits will provide more protection from acute and chronic fatigue by significantly reducing the number of weekly, monthly, and annual flight hours permitted by the old rule. Therefore, the FAA believes that the weekly limit is a necessary component of the overall regulatory scheme for the prevention of fatigue of flight crewmembers engaged in

scheduled operations, and that the benefits of the amendment outweigh the costs. The costs and benefits are discussed below under "Economic Evaluation."

A number of commenters pointed out that two earlier FAA proposals, Notice 78-3B and 82-4 (45 FR 55316, August 11, 1980 and 47 FR 10748, March 11, 1982) did not contain annual limits and that one of these proposals also did not contain weekly limits. In both cases, however, the concepts for the proposed rules differed from this proposal. In Notice 78-3B annual limits were dropped but monthly and weekly limits included both flight and duty hours. In Notice 82-4 the flight time rules were simplified across the board with a single monthly limit, and an 8-hour rest for under 8 hours of flight time and a 10-hour required rest for over 8 hours of flight time. In light of comments on Notice 82-4 and the negotiations of the Advisory Committee, the FAA has determined that the final rule better serves the needs of the public, flight crewmembers, and operators. Those operators who will have additional costs connected with the weekly limit are reminded that they have an adequate time period to adjust their scheduling practices to the new weekly requirements.

A number of commenters favored the quarterly, biquarterly, and annual limits for Part 135 unscheduled operators. Two commenters objected to the limits for Part 135 unscheduled operations on the grounds that they appear potentially unsafe. One commenter pointed out that under the proposed limits, a flight crewmember could be scheduled to work a 14-hour duty day with 8 hours of flight time each day for 2 consecutive calendar months without an extended rest. Under these circumstances the flight crewmember would be within the limit of 500 hours within one calendar quarter and 800 hours within two consecutive calendar quarters. (§ 135.267(a) (1) and (2)).

The FAA recognizes that such a schedule would be allowed under the new rule. However, the quarterly limit has been set at 500 flight hours to allow for seasonal, unscheduled operations which provide an important transportation service to the public. In addition, certain safeguards are inherent in the rule. If a flight crewmember does fly 500 hours in one quarter, he or she cannot fly more than 300 hours in the quarter before nor in the quarter after. And a flight crewmember cannot fly more than 1400 hours in the year. Also a Decrease in flight crewmember must be given 13 rest periods of at least 24

consecutive hours in each quarter. If a pilot does fly 8 hours in a 14-hour duty period each day for 60 consecutive days, in the last 30 days of the quarter he or she can fly only 20 hours and must be given 13 rest periods of at least 24 consecutive hours. Although such a schedule is theoretically possible under the rule, it seems highly impractical. Finally, the rule also requires that each 14-hour duty period in this example be preceded and followed by 10 hour rest periods and that the daily flight limit of 8 hours for a single pilot and 10 hours for two-pilot crew cannot be exceeded without incurring a penalty of up to 16 hours of rest. Given the entire context of § 135.267, the flight crewmember will be adequately rested. This is in contrast to the current rule which allows a pilot to fly 8 to 10 hours a day for 7 days a week for 52 weeks.

The proposed rule distinguished a special category of Part 121 operators in § 121.471(h). Paragraph (h) established less restrictive weekly, monthly, and annual limits for operators of propeller-driven multiengine airplanes with a passenger seating configuration of 31 to 60 seats and a payload capacity range of 7,501 pounds to 18,000 pounds. The provision was based upon a proposal from the Regional Airlines Association (RAA) submitted to the Advisory Committee involved in the regulatory negotiations of the flight time limitation rules. The RAA originally proposed establishing in Part 135 special flight time limits to apply to operations of multiengine propeller-driven airplanes with a maximum passenger seating configuration of 60 seats and a maximum payload capacity of 18,000 pounds. The present benchmark for Part 135 operations, as established in Special Federal Aviation Regulation 38 (now SFAR 38-2), is a maximum seating configuration of 30 seats and a maximum payload capacity of 7,500 pounds. The basic premise of the RAA's request was that the 30-seat benchmark is inappropriate for flight time rules. According to the RAA, short-duration, passenger-carrying operations using smaller aircraft (commonly known as regional operations), whether conducted under Part 135 or Part 121, are like each other and unlike the longer haul jet operations of the major airlines. Therefore, the RAA requested that those operations in aircraft up to 60 passenger seats follow the flight time rule appropriate to their type of operation.

The FAA's proposed rule (Notice 84-3) retained the 30-passenger, 7,500 pound payload distinction as the dividing line between Part 121 and Part 135 flight time rules. However, the FAA

accommodated the RAA request by (1) proposing the same daily rest requirements and flight time limits between rests for Part 121 domestic air carrier operations and for Part 135 scheduled operations; and (2) proposing flight time limits, during any 7 days, calendar month or year, for Part 135 scheduled operations, which are less restrictive than those for Part 121 domestic air carrier operations (§ 121.471(a)). These less restrictive limits were incorporated in proposed § 121.471(h) as follows:

(h) For operations of propeller driven multiengine airplanes having a passenger seating configuration of 31-60 seats and a payload capacity of 18,000 pounds or less, no air carrier may schedule any flight crewmember for flight time in scheduled air transportation or in other commercial flying if that crewmember's total flight time in all commercial flying will exceed—

- (1) 1,200 hours in any calendar year.
- (2) 120 hours in any calendar month.
- (3) 32 hours in any 7 consecutive days.
- (4) 9 hours between rest periods. [Changed to "8 hours between rest periods" in this final rule.]

Thus, in effect, proposed paragraph (h) created a special aircraft size category in the Part 121 flight time limitations without changing the benchmark for Part 135 established in SFAR 38.

Proposed paragraph (h) was a controversial issue in the Advisory Committee negotiations and the Committee did not reach consensus on the issue. While the FAA chose to include paragraph (h) in the NPRM, it stated the following reservation:

Although the FAA has incorporated the RAA requests into this proposed rule, in view of objections to proposed paragraph (h) expressed at the February 14, 1984 Advisory Committee meeting, the FAA invites comments and statistics on this issue.

During the comment period, the FAA received a number of comments on paragraph (h). Of the 54 comments received on the subject, 27 favored including paragraph (h), while 27 opposed it. Most of the comments in favor of including paragraph (h) were from air carrier associations and individual air carriers who fly Part 121 operations or dual Part 121/135 operations. These comments supported the RAA's earlier position that regional operations are like each other and unlike other Part 121 or Part 135 operations. Some dual Part 121/135 operators pointed out that without paragraph (h) dual operators would have the expense of maintaining two sets of records on flight time limitations and rest requirements for operations that are essentially the same. However, recordkeeping is not that costly,

especially in light of the flexibility and other benefits the rule offers Part 121 and Part 135 scheduled operators. If it is of significant cost to keep dual records, it is not a new cost, and presumably is an anticipated cost when a Part 135 operator considers purchasing large aircraft. It is a cost that operators should take into account as part of that decision and is in no way a cost imposed by this rulemaking.

Most of the comments in opposition to paragraph (h) were from regional airline pilots who conduct operations under Part 121 and from organizations representing pilots. These comments stated that regional operations are actually more strenuous and more fatiguing than other Part 121 operations.

At the last Advisory Committee meeting on September 11, 1984, the issue of including paragraph (h) was not separately discussed as an issue by the committee members. However, several regional air carrier pilots made oral presentations to the committee in which they objected to less restrictive limits for short-duration, passenger-carrying operations. The chairman of the National Transportation Safety Board (NTSB) also made an oral presentation in which he objected to paragraph (h) as follows:

The FAA has not presented any basis for the higher flight time limitations proposed for flight crewmembers of the category of aircraft addressed in proposed 121.471(h) over the limitations set forth in 121.471(a). The operation of propeller-driven smaller airplanes and those used for commuter operations are, by the very nature of their normal use, more demanding; they fly shorter leg segments, make more approaches into smaller airports having less sophisticated navigational aids, spend proportionately more time in high density terminal environments, and encounter more often the adverse weather conditions typical of lower altitudes. Moreover, flight crewmembers of these aircraft often have a higher duty time to flight time ratio which is not accounted for in the proposed regulations. In the Board's view, there is a compelling rationale for imposing more restrictive flight time limitations on these flight crews. To allow less restrictive limitations, as proposed, will possibly jeopardize safety.

As emphasized in the NPRM, decisions in this final rule are the sole responsibility of the Administrator. Although the consensus recommendations of the Advisory Committee made a significant impact on the final rule, on this issue the Committee did not reach a consensus. Therefore, the FAA has made its own determination after considering NPRM 84-3 comments, final presentations, and the earlier deliberations. While the comments were numerically split, the

FAA is impressed that the most persuasive comments oppose allowing less restrictive cumulative limits for certain Part 121 operations. The less restrictive weekly, monthly, and annual limits being adopted for Part 135 scheduled operations can be justified primarily on the grounds that present Part 135 operations are subject only to daily limits. However, Part 121 operations—including operations conducted by operators who began as Part 135 operators—have for over 30 years been subject to the 30 hour weekly, 100 hour monthly, and 1,000 hour annual limits. The FAA concludes that it cannot ensure that the present level of safety would be maintained if it were to relax these limits for some Part 121 operations. Therefore, proposed § 121.471(h) has not been included in this final rule.

#### *Daily Flight Time Limits—Part 121 and Part 135 Scheduled Operations*

The daily flight time limits and rest requirements for Part 121 domestic operations and Part 135 scheduled operations are alike except that Part 135 scheduled operations have an additional daily flight time limit of 8 hours for a one-pilot crew. Under both parts, an air carrier may not schedule a flight crewmember for more than 8 hours of flight time between required rest periods. An 8-hour flight time limit between rests is similar to the current § 121.471(b) which limits flight time to 8 hours between rests by requiring that an intervening rest of twice the number of hours of flight time but not less than 8 hours be given at or before the completion of 8 hours of flight time in any given 24-hour period.

The proposed rule limited flight time to 9 hours between rest periods. A number of commenters objected to the 9-hour limit on the basis that 9 hours had not been discussed by the Advisory Committee before drafting NPRM. The FAA proposed 9 hours as the limit between rest periods because several members stood firm on an 8-hour flight time limit in any 24 consecutive hours with a 10-hour required rest and other members stood firm on an 8-hour flight time limit with an 8-hour required intervening rest.

In order to gather additional information, in Notice 83-4 the FAA requested comments on how often the 9-hour cap would be reached, including the types of schedules contemplated. Only one commenter submitted specific, substantive comments on the 9-hour cap. This comment stated that current Part 121 requirements have so influenced marketing strategies and scheduling

practices of carriers that carriers do not know and cannot hypothesize how often the 9-hour cap would be reached. However, flexibility to exceed 8 hours would likely offer benefits as certain markets, which involve turn-arounds on long stage lengths, could be efficiently served within a 9-hour cap. The FAA considered this information in conjunction with a number of comments submitted by pilots, pilot associations, and others who objected to the 9-hour cap because it would extend the duty day. The FAA concluded that the proposed 9-hour cap was of dubious benefit to long-haul operations because

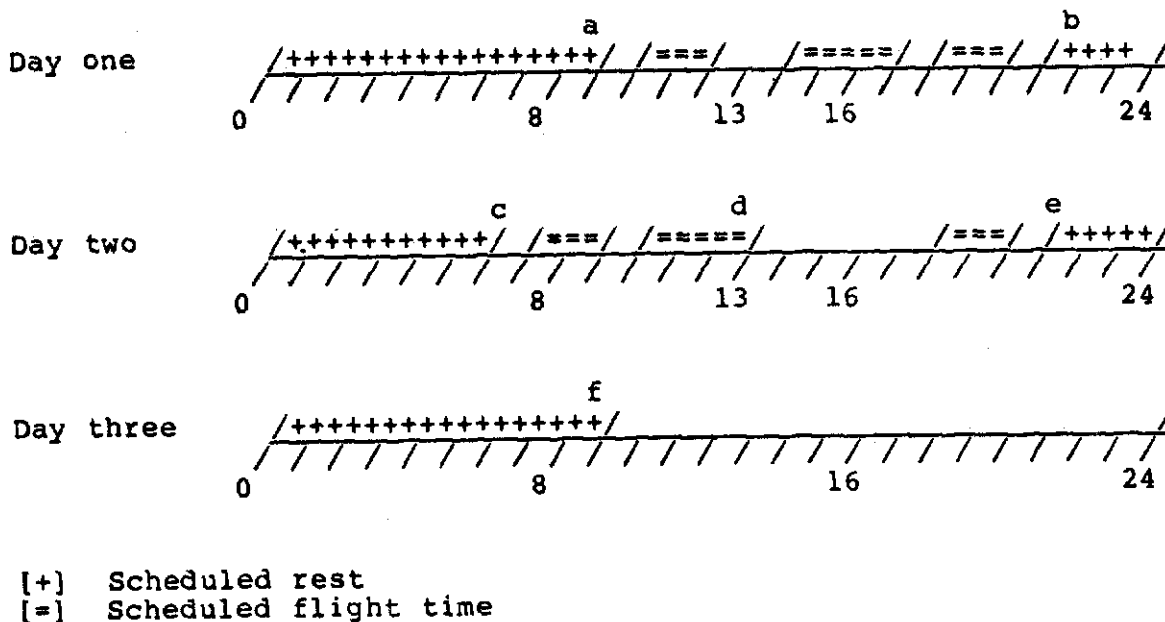
it could not accommodate many distant city pairs. Furthermore, the 9-hour cap might extend what is already a long duty period for flight crewmembers in short-haul operations. For short-haul, passenger carrying operations, 8 hours of flight time usually involves 12 to 14 hours of duty because of the number of flights and the time needed on the ground between flights. Extending the flight time limitation between rests beyond the 8 hours currently allowed by the domestic rules in Part 121 cannot be justified at this time, and would create inconsistencies with certain other Part 121 flight time limitations. Therefore, the

FAA has decided that the final rule will limit scheduled flight time between required rest periods to a maximum of 8 hours.

A number of commenters apparently view the 8-hour cap as an 8-hour limit within any 24-hour period. It should be noted that the 8-hour cap of this rule and the 8-hour cap of the current rule are not flight time limits in a rolling 24-hour period. Rather, the 8-hour cap is a flight time limit between required rest periods. It is possible under both rules to fly in excess of 8 hours within a 24-hour period. (See Figure 1 for an example of operation under the new rule.)

Figure 1

LEGALLY SCHEDULED FLIGHT TIME IN EXCESS OF 8 HOURS DURING 24 CONSECUTIVE HOURS



- (a) At 0900 hours the flight crewmember is scheduled for duty after 24 hours rest.
- (b) At 2100 hours the flight crewmember is scheduled to be released from duty after being scheduled for 7 hours of flight time.
- (c) At 0600 hours (Day two), the flight crewmember reports for duty after a 9 hour reduced rest.
- (d) At 1300 hours (Day two) the flight crewmember can look back on 10 hours

- of scheduled flight time in 24 consecutive hours.
  - (e) At 2100 hours (Day two), the flight crewmember is released from duty after 7 hours of scheduled flight to receive compensatory rest of at least 12 hours.
  - (f) At 0900 hours (Day three), the flight crewmember completes the compensatory rest.
- Daily Rest Requirements—Part 121 and Part 135 Scheduled Operations*

The new rest requirements under Part 121 and Part 135 scheduled rules resolve the series-of-flights problem in current Part 121 by replacing the intervening rest concept and the 16-hour rest with a daily rest requirement based on the number of flight hours scheduled in any 24-hour period. The new daily rest requirements apply when any amount of flight time is scheduled, thereby correcting the lack of rest requirements in current Part 121 for flight crewmembers who are scheduled for

less than 8 hours of flight time in any 24-hour period. For both Part 121 and Part 135 scheduled operations for a 24 consecutive hour period, 9 consecutive hours of rest must be scheduled for less than 8 hours of flight time, 10 consecutive hours of rest for 8 or more but less than 9 hours of flight time, and 11 consecutive hours of rest for 9 or more hours of flight time.

To allow more flexibility than the current rule in scheduling or in adjusting scheduled rests in the event of late arrivals, the new rule provides for reducing a required rest as follows: a 9-hour rest can be reduced to 8 hours if 10 hours of rest is given at the flight crewmember's next scheduled rest; a 10-hour rest can be reduced to 8 hours of rest if 11 hours is given at the next scheduled rest; and an 11-hour rest can be reduced to 9 hours if 12 hours is given at the next scheduled rest. These reduced and compensatory rest periods are absolute and may not be further reduced under any circumstances.

It should be emphasized that the provisions for rest period reductions adopted herein provide substantially more flexibility for air carriers than is available under the current domestic rules. The change from the proposed 7½ hour reduced rest to an 8 hour reduced rest simplifies the regulation because the air carriers are accustomed to using an 8 hour rest period.

Scheduled flight time hours during any 24-hour period	Minimum hours of rest		
	Normal	Reduced	Compensatory
<8	9	8	10
≥8 <9	10	9	11
≥9	11	9	12

NOTE.—< means less than. ≥ means equal to or greater than.

The proposed rule allowed the 9-hour rest required for less than 8 hours of scheduled flight time to be reduced to 7½ hours provided a minimum of 10 hours rest is given at the next scheduled rest period. A large majority of the commenters who addressed this provision strongly opposed allowing a minimum rest period to be reduced to 7½ hours. The following excerpt from the comment of the Aviation Consumer Action Project (which was represented on the Committee) was typical of the anti-7½-hour minimum rest comments:

It would seem more appropriate to limit the shrinkage, if at all, from nine hours to eight hours. An eight hour floor would seem more appropriate, particularly in the not unusual situation where the pilot lands late at night after a 'light' day of flying, but has a heavier schedule starting the next morning. Seven and one-half hours rest would seem to be too

little in that context, particularly since it does not include getting to or from the airport hotel or checking in and out.

A significant number of pilots in regional air carrier operations made a joint submission in commenting on various aspects of the proposal including that for a reduced rest period of 7½ hours. This submission indicated that on one carrier alone, there are five "quick turnaround" schedules involving overnight rest periods. According to these commenters, although the rest periods are scheduled for 8 to 9 hours, frequently the flights arrive late at the overnight point thus creating a situation for reduction of the scheduled rest to 7½ hours. According to these pilots, if transportation to and from the hotel and normal functions prior to retiring and after arising are considered, the maximum time available for sleep is 5 hours and 45 minutes. These pilots contend that this amount of time is inadequate, particularly if the next day involves a heavy flight schedule.

Although the proposed 7½ hour reduced rest period was focused on during the regulatory negotiation process, the above described comments and others which opposed that provision raise a significant issue concerning whether to adopt the 7½-hour provision as proposed or modify it. This question is exacerbated by the fact that the air transportation industry is experiencing significant changes including innovative operating practices and the entry of many new air carriers. Competition has increased substantially. Thus, there is a recognizable risk that the present relatively few rest periods in the range of 7½ hours could increase substantially.

All parties agreed to a minimum rest period regardless of the amount of flight time. In determining the specific amount of such a rest period, the FAA has decided to follow a course of action which minimizes the possibility of pilot fatigue. Accordingly, the proposal, as adopted herein, is modified to change the 7½ hour reduced rest period to 8 hours. In this respect, as discussed earlier in this preamble, at the present time the National Aeronautics and Space Administration is conducting a study of pilot fatigue factors. When the results of that study are available to the FAA, the agency will review the flight time limitations and rest requirements to determine what, if any, changes are indicated.

The FAA recognizes that some of the approximately 30,000 scheduled daily flights currently operating within the United States may depend on providing

less than 8 hours of rest. Therefore, the final compliance date of this final rule is delayed long enough to provide those operators affected by the minimum rest requirement ample time to adjust those flight schedules which provide for less than 8 hours of rest.

Requests that the minimum rest be an 8-hour rest at a rest facility are not being incorporated in the final rule because travel time to and from a rest facility varies according to distance, time of day, surface traffic conditions, and other variables. The FAA believes that the 8-hour minimum rest, taken together with weekly flight time limitations and compensatory requirements for rest reductions, will assure a rested flight crewmember. Since a reduced rest must be compensated for at the next scheduled rest, a flight crewmember will receive at a minimum 18 hours of rest over approximately 48 hours. Discussion at the last Advisory Committee meeting questioned whether the compensatory rest must be completed within a 48-hour period. One commenter specifically requested "definitive language" to that effect in the preamble or the proposed rule. The proposed rule only required that a compensatory rest be given at the next required rest period. The preamble by way of explanation stated that the rest would be given within "approximately a 48-hour period". The FAA did not intend to require that the compensatory rest be completed within exactly a 48-hour period. However, it was the intent of the proposal, as discussed at the last committee meeting, that the flight crewmember receive enough rest from the combined reduced and compensatory rests to overcome fatigue. In order to assure that a flight crewmember receives both the reduced and compensatory rests within a reasonable period, the final rule requires, in all appropriate sections, that the compensatory rest begin no later than 24 hours after the commencement of the reduced rest period. The longer compensatory rest is necessary within a reasonable time period to overcome any acute fatigue incurred during the flight times scheduled before and after the reduced rest period.

A number of commenters expressed concern that the rest reduction provisions of the rule would result in the scheduling of short flights late in the duty period of the first day, minimum rest overnight, and a strenuous flight and duty period on the second day. This concern, plus hypothetical schedules submitted in comments, suggest that these provisions have not been entirely understood. For example, one commenter stated that a flight

crewmember could be scheduled for 4 consecutive 15-hour days with 7.5 (now 8) to 9 hours of scheduled rest between the duty periods if the flight crewmember is scheduled for less than 8 hours of flight time each day. The statement is incorrect because in 4 consecutive days with less than 8 hours of scheduled flight time during any 24

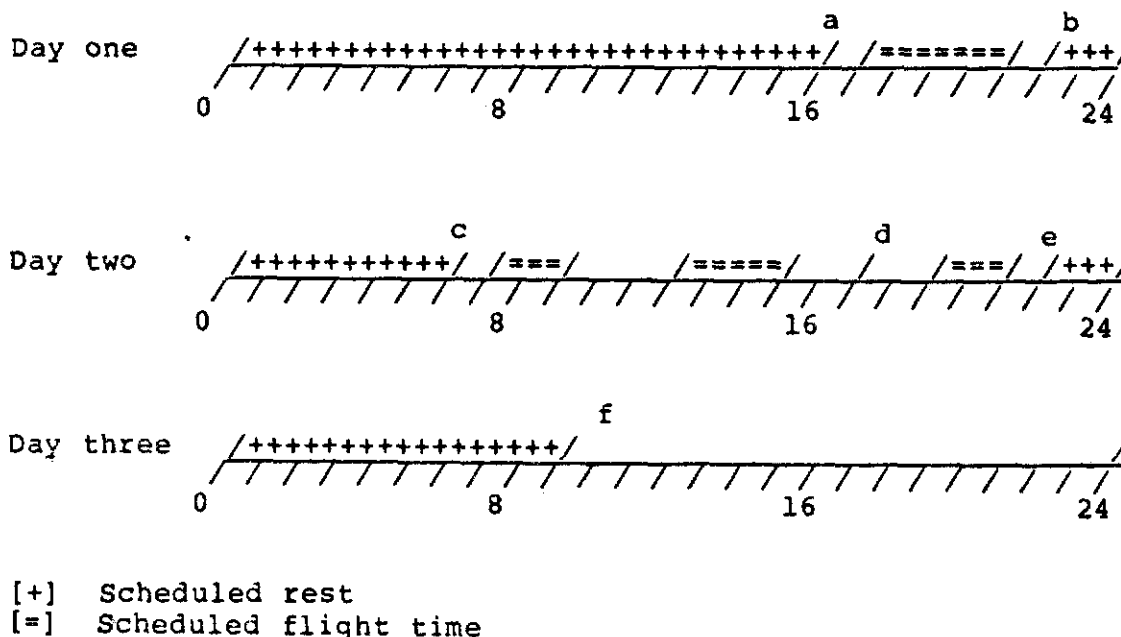
hour period, a reduced rest of 8 hours for the first scheduled rest must be compensated for at the second scheduled rest by at least 10 consecutive hours of rest.

It should be noted that the rest requirement is based on the number of flight hours looking back 24 hours from the completion of each flight segment. If

a pilot is scheduled for 4 hours of flight time late on the first day and receives a reduced rest of 8 hours, he or she can only be scheduled for up to 5 hours of flight time the following morning, since the flight crewmember cannot be scheduled for 9 or more flight time hours in 24 consecutive hours, based on an 8 hour reduced rest period. (See Figure 2)

Figure 2

REDUCED REST TIED TO NUMBER OF FLIGHT HOURS IN 24 CONSECUTIVE HOURS



(a) At 1600 hours the flight crewmember reports for duty after 24 hours rest.

(b) At 2200 hours the flight crewmember is scheduled to be released from duty having been scheduled to fly 4 hours.

(c) At 0600 hours (Day Two), the flight crewmember is scheduled to report for duty after an 8 hour reduced rest.

(d) By 1700 hours (Day Two), the flight crewmember may not be scheduled for more than 4 hours and 59 minutes of flight, or he or she will equal or exceed 9 hours of flight time in 24 consecutive hours which would not be legal unless he or she is scheduled for at least 9 hours of reduced rest in the preceding 24 hours.

(e) At 2200 hours (Day Two), 24 hours after the commencement of the reduced rest, the flight crewmember is released from duty to receive 11 hours of compensatory rest for 8 or more but less than 9 hours of scheduled flight time.

(f) At 0900 hours (Day Three), the flight crewmember completes the compensatory rest.

The purpose of the rest reduction is to allow scheduling flexibility for the benefit of air carriers, pilots, and the flying public. Although this rule allows for scheduling a reduced rest, it does not allow for any reduction of the minimum reduced rest or of the minimum compensatory rest under any circumstances. Therefore, in order to benefit fully from this flexibility, an air carrier should schedule realistically to

avoid any possible flight schedule disruptions. The FAA expects that most air carriers will schedule at least 9- to 11-hour required rest periods. But, in those instances when air carriers need to schedule a shorter rest or when rest must be reduced because actual flight time has exceeded scheduled flight time, the rule allows for some scheduling flexibility.

A number of commenters requested that the word "rest" be defined or that rest be measured as the period between "release to report" and that release and report times be specified in the rules to allow 1 hour outside the rest period for report and 30 minutes outside the rest period for release. Actual report and release (briefing and debriefing) procedures vary among air carriers



depending on certain factors, such as agreements made with employees. In addition, actual time spent for report and release duties may vary according to the nature and time of the flight. The FAA will continue to leave briefing and debriefing time allotments to the discretion of the air carrier as long as the air carriers permit adequate time to perform required preflight and post flight duties and do not infringe on the required rest periods.

A number of commenters stated that the new sliding scale for required rest plus the system of reduced rests and compensatory rests is more complicated than the current rule. Actually, the proposed rule is very simple if reduced scheduling is not used, and no air carrier is required to schedule a reduced rest period. However, to provide guidance for scheduling in compliance with the new rule, the FAA has added examples and a chart to this preamble to the rule that can help to determine if a schedule is in compliance.

#### *Actual Flight Time vs. Scheduled Flight Time*

While §§ 121.471 and 135.265 deal primarily with daily scheduled flight hours, *actual flight hours* determine compliance with weekly, monthly, and annual limits. Sections 121.471(g) and 135.263(d) state that a flight crewmember is not considered to be scheduled for duty in excess of flight time, limitations if the scheduled flights normally terminate within the limitation. In scheduling flights, each air carrier must provide adequate time for the flight crewmember to perform required pre- and post-flight duties, and at least the minimum rest periods required by the rules.

A number of commenters objected to the lack of a provision for a make-up rest in Part 121 domestic operations and Part 135 scheduled operations, such as exists in the Part 135 unscheduled operations rules for instances when actual flight time exceeds scheduled flight time. In answer, compliance with the flight scheduling rules requires each air carrier to schedule realistically. In addition, each flight crewmember, if provided the opportunity, should bid a realistic schedule. If actual flight time is consistently higher than the scheduled flight time allowed, the schedule should be adjusted. It should also be noted that the required rest period in § 121.471(b) and § 135.265(b) is actual rest time which may not be reduced except in accordance with § 121.471(c) and § 135.265(c). If a flight crewmember does not receive the required number of hours of rest, the operator and the flight crewmember are in violation of the

regulation. The FAA intends to enforce the regulation vigorously. Realistic scheduling and bidding should provide a reasonable balance between scheduled flight hours and rest periods on a daily, weekly, monthly, and annual basis. Public safety demands realistic scheduling and properly rested flight crewmembers.

Two commenters raised a question about the application of the rule when during a 24 consecutive hour period, actual flight time exceeds scheduled flight time. For example, if a flight crewmember is scheduled for 7:45 hours of flight and 9 hours of rest in the 24 hours preceding the scheduled completion of the flight, and because of enroute delays, the crewmember actually flies 8:05 hours, does the subsequent rest have to be 10 hours? *No*, because the flight crewmember was not scheduled for more than eight flight hours. Nor is the air carrier required to provide a longer compensatory rest at the next scheduled rest period because the actual flight time exceeded scheduled flight time. No penalty exists in either § 121.471 or § 135.265 for circumstances under which actual flight time exceeds scheduled flight time. However, if actual flight hours infringe on a required minimum reduced rest or makeup rest, the full, required minimum rest must be given at the completion of the late flight even if doing so results in late departures for subsequent flights. As a further example, if a flight crewmember is scheduled for 5 hours of flight followed immediately by 9 hours of rest and because of reasons beyond the control of the operator or flight crewmember the flight infringes on the scheduled rest, one of two events could occur: (1) If the total scheduled flight time in the 24 consecutive hours is less than 8, the required rest could be reduced to 8 hours with a compensatory rest of 10 hours given at the next scheduled rest; (2) If the rest is already a minimum rest, the flight crewmember must be given that rest, which may mean that subsequent scheduled flights will have to be delayed.

#### *Flight Crewmember Responsibility*

At the September 11, 1984 meeting, several committee members requested that the proposed language in § 121.471(a) ". . . no domestic air carrier may schedule any flight crewmember and no flight crewmember may accept . . ." be changed by deleting the words "no flight crewmembers may accept." According to the committee, the phrase places responsibility for accepting an assignment on the crewmember which can create labor-management problems

for the air carriers. Committee members think that the air carriers should have full responsibility for scheduling flight time. Members representing labor organizations expressed the concern that in the event of an accident, a flight crewmember could be blamed if he or she had accepted an assignment for flight time beyond his or her limit. A number of commenters also stated that requiring flight crewmembers to be responsible for the flight time limits could create confusion if a difference of opinion arises between a flight crewmember and an operator as to whether a flight will extend beyond the flight time limits.

"Flight crewmember responsibility" is a requirement in current Part 135, § 135.261. The FAA has retained the language throughout the final rule because the provision is essential for enforcement of the flight time limits. For example, in instances where a flight crewmember has logged commercial flying other than the flight time logged for the air carrier, the air carrier might not have knowledge of the additional commercial flying. Thus, the flight crewmember must also be responsible for complying with the flight time limits and rest requirements.

The FAA wants to stress that the goal of these revisions is to prevent fatigue. Acute or short-term fatigue will be prevented by the introduction of a minimum daily rest requirement in Part 121, regardless of the amount of flight time scheduled. Cumulative or long-term fatigue will be prevented by instituting either weekly, monthly, and annual flight time limitations for Part 135 scheduled operations or quarterly, biquarterly, and annual flight time limitations for Part 135 unscheduled operations. It is the responsibility of both the operator and the flight crewmember to prevent fatigue, not only by following the regulations, but also by acting intelligently and conscientiously while serving the traveling public. This means taking into consideration weather conditions, air traffic, health of each flight crewmember, or any other circumstances (personal problems, etc.) that might affect the flight crewmember's alertness or judgment on a particular flight. The FAA also emphasizes that accurate flight time records must be made. The agency will consider it a very serious matter if recording of flight time is not accomplished in an honest manner.

#### *Dual Operations*

In Notice 84-3, the FAA stated that "Part 135 operators who operate scheduled passenger-carrying

operations under Part 121 are subject to the domestic air carrier flight time limitations of Subpart Q." The FAA requested comments on whether additional language was needed in the rule to clarify this requirement. The purpose of the statement was to clarify for air carriers that operate under both Part 121 and Part 135, that they must comply with Part 121 Subpart Q flight time limits and rest requirements for their Part 121 domestic air carrier operations. The statement was specifically referring to Part 135 operators who had been operating scheduled passenger-carrying operations under Part 121 Subpart S and who recently have been required to comply with the domestic air carrier requirements of Subpart Q and other rules applicable to domestic air carrier operations. No specific comments were received on this issue.

A number of comments indicated and the deliberations of the Advisory Committee confirmed the existence of a broader problem concerning dual operations. Several comments were received from air carriers who fly both scheduled and unscheduled operations. These comments expressed confusion about how to comply with the rules. Should a dual operator make all its operations comply with whatever the most restrictive flight time limits and rest requirements are? For example, should a Part 135 scheduled operator who has some Part 121 operations comply in all operations with the more restrictive Part 121 rules? Or should that operator maintain separate crews, one for Part 121 operations and one for Part 135 operations? The same questions arise for operators who have both Part 135 scheduled and Part 135 unscheduled operations, and for operators who fly different types of Part 121 operations, such as domestic and supplemental.

The long-standing policy of the FAA has been to permit dual operators to use the same flight crewmembers interchangeably for different types of operations. However, an operator may maintain separate crews for different types of operations if that is more convenient. To be in compliance with the rules, a pilot who files dual operations must, in all respects, comply with the flight time limits and rest requirements for the particular operation being conducted. Thus, under the new rule, a pilot flying Part 121 domestic flights and Part 135 scheduled flights could legally fly both types of flights interchangeably up to 1,000 hours in a calendar year. The pilot could then continue to fly Part 135 scheduled flights for an additional 200 hours, but could no

longer fly Part 121 domestic flights. The same principle would apply for the monthly and weekly limits. In the case of dual operators who operate Part 121 domestic and supplemental flights, a pilot could fly up to 30 hours of domestic flight operations and supplemental operations in less than 7 days. During a 7-day period, the pilot could then continue to fly supplemental operations, which have no weekly limit, but could not fly more hours of domestic operations. However, the 30 hours in 7 days limit may prohibit the pilot from conducting a domestic flight on the eighth day.

Dual operators who assign pilots interchangeably on a daily basis must also see that the pilot has satisfied all of the flight time limits and rest requirements. Thus, for any assigned flight hours, a pilot must have had the required amount of rest and must fly within the daily flight time limitations for the particular type of operation. For example, a pilot who flies both Part 135 scheduled operations and Part 135 unscheduled operations on a daily basis must be in compliance with both sets of rest and flight requirements. If a pilot is flying scheduled operations morning and afternoon, the pilot must have had at least the required rest under § 135.265 and may not fly more than 8 hours between rests. If in addition to scheduled flights, the pilot is flying unscheduled operations in the middle of the day, the pilot must have had at least 10 hours of rest in the 24 hours preceding the completion of any flight.

On a daily basis, in instances where the requirements are not parallel (most cases) the more restrictive limits will necessarily apply. A certificate holder who plans less than 8 hours of flight time for combined scheduled and unscheduled flights must schedule at least 10 hours of rest preceding the flight hours. Certificate holders who plan more than 9 hours of scheduled and unscheduled flights must give 11 hours of rest in the preceding 24 hours. If the certificate holder reduces the 11-hour rest as allowed under § 135.265(c)(3), he may only reduce it to 10 hours or he will not be in compliance with § 135.267(c)(2). In the same way, a certificate holder who conducts scheduled and unscheduled operations on a daily basis must adhere to both daily flight time limits of § 135.265(a) (4) and (5), and § 135.267(c) (1) and (2) as applicable. This certificate holder cannot schedule a pilot for more than 8 hours of flight time between required rest periods nor schedule a pilot for more than 10 hours of flight time in any 24 consecutive hours.

Clearly, dual operations do present scheduling complications and always have. However, the FAA believes that it is beneficial to the majority of operators to have flight time limits and rest requirements specifically suited to different types of operations. One rule for all operations would eliminate the complications of dual operations, but might unreasonably restrict certain types of operations. Under the new rule, dual operators will continue to be required to comply with all applicable rules. However, in Part 121 and Part 135 rules certain mechanisms exist which allow some dual operators to simplify their operations. Section 121.5 allows flag and domestic air carriers to obtain authority from the Administrator to conduct charter flights or other special services, over certain routes, under the rules applicable to flag and domestic air carriers. The requirements in § 135.261 have been changed from the proposed rule to allow any Part 135 operator the option of conducting all Part 135 operations under the rules for scheduled operations after obtaining an appropriate operations specification amendment. This should reduce the administrative and operational management burdens for Part 135 dual operators.

#### Section by Section Discussion

##### *Part 121, Subpart Q—Flight Time Limitations and Rest Requirements: Domestic Air Carriers*

Subpart Q of Part 121 consists of §§ 121.470 and 121.471. Throughout Subpart Q, the words "rest requirements" have been added, in the subpart heading, in the body of § 121.470, and in the heading of § 121.471. In addition, certain nonsubstantive editorial changes have been made for clarity or correctness.

The following sections describe the technical changes to the proposed rule incorporated in the final rule. All of the major issues involving Part 121 and related changes have been discussed earlier in this preamble.

**Section 121.471—Flight time limitations and rest requirements: All flight crewmembers.**

Paragraph (a)(4) is changed from the proposed rule by adding the word "required" to clarify that the rest period must be a scheduled rest period as described in paragraph (b) or (c). The proposed 9 flight hours between rests in paragraph (a)(4) is changed to 8 flight hours, and the proposed minimum of 7½ hours of rest in paragraph (c) (1) is changed to 8 hours.

Paragraphs (c) (1), (2), and (3) are changed from the proposed rule to clarify in the rule that the compensatory rest must begin within 24 hours of the commencement of the reduced rest. (See the "Daily Rest Requirements Part 121 and Part 135 Scheduled Operations" section of the preamble.) The undesignated paragraph at the end of paragraph (c) is redesignated as paragraph (c)(4) in order to make its relationship to the paragraph clear.

The word "duty" in the second line of paragraph (g), which describe flight time in excess of limitations, is changed in the final rule to "flight time", for consistency.

Paragraph (h) is removed, as discussed in the section on "Cumulative Flight Time Limits—Certain Part 121 Operations."

#### *Part 135, Subpart F—Flight Crewmember Flight Time Limitations and Rest Requirements*

The flight time limitations and rest requirements for Part 135 operations are organized into the following categories to accommodate the needs of the varied operations conducted under Part 135: (1) general requirements for all Part 135 operations; (2) scheduled operations; (3) unscheduled operations (one- and two-pilot crews and augmented crews); and (4) helicopter hospital emergency medical evacuation services (HEMES).

Some technical changes have been made throughout Part 135, Subpart F. First, the words "rest requirements" are added to the subpart and section headings throughout the subpart in order to make it clear that the subpart contains rest requirements as well as flight time limitations.

Second, whenever the word "duty" meant "flight time" the wording has been changed to read "flight time" in order to make the language in the subpart consistent with the FAA interpretation of the word "duty".

In addition, certain nonsubstantive editorial changes have been made.

The following sections detail the technical changes from the proposed rule in the final rule. They also describe those changes and comments related to controversial issues in specific sections of Part 135, Subpart F. General issues related to both Parts 121 and 135 have been considered in earlier sections of this preamble.

#### **Section 135.261—Applicability.**

Proposed § 135.216(b) limited by definition "scheduled operations" to "scheduled passenger carrying operations" with a published schedule of at least five round trips per week. Cargo operators represented on the

Advisory Committee and those who commented in writing on the rule requested that cargo operations also be allowed to operate under Section 135.265, scheduled operations rules. The FAA has changed the proposed rule to permit any Part 135 operator to comply with the flight time limitations and rest requirements of § 135.265 thereby reducing any compliance burden caused by keeping two sets of records. In addition, paragraph (b) has been restructured for the sake of clarity.

Paragraph (c) specifies that operations not included in the definition of "scheduled passengers-carrying operations" and operations conducted only within the state of Alaska (except for the helicopter hospital emergency medical evacuation operations) are conducted under the rest requirements and flight time limits of §§ 135.267 and 135.269. Comments were invited by the FAA on the inclusion of scheduled Alaskan operations under Part 135 unscheduled operations. One commenter opposed including Alaskan operations under unscheduled operations because the commenter believed that all operators providing regularly scheduled air service should be subject to the same rules. On this issue, the FAA remains in agreement with certain members of the Advisory Committee who maintain that because of the size of the state and the weather conditions, Alaska has a unique flying environment which justifies the flight time limits and rest requirements applicable to unscheduled operations. One commenter who opposed the rule apparently assumed that scheduled operators in Alaska would have to comply with scheduled rules. This is a misunderstanding of the proposal. Scheduled and unscheduled operations conducted solely within the state of Alaska must comply with § 135.267 and § 135.269, i.e., rules for unscheduled operations. However, Alaskan operators may elect to comply with § 135.265, flight time limitations and rest requirements for scheduled operations, and obtain an appropriate operations specification amendment.

Some commenters requested that large helicopters, those with a passenger seating capacity of more than 30 people, be allowed to fly under the Part 135 flight time limitations and rest requirements. They argued that the new, large helicopters are operated in the same way and under the same conditions as smaller helicopters. This concern is outside the scope of this rulemaking. The operation of large helicopters has been accommodated in a recent revision of SFAR 38.

**Section 135.263—Flight time limitations and rest requirements: All certificate holders.**

Section 135.263 contains requirements that apply either to all operations under Part 135 or to more than one type of operation. Most of the paragraphs in § 135.263 originated in current § 135.261. Paragraph (d) states that under certain conditions a flight crewmember is not considered to have flown in excess of the flight time limitations. It has been changed from proposed § 135.263 (d) to clarify that it applies to unscheduled as well as scheduled operations.

The requirements for compensatory rest for flight crewmembers who have exceeded the daily flight time limitations, which appeared in proposed § 135.263(e), have been moved to §§ 135.267(e), 135.269(c), and 135.271(c) for clarity and in order to tailor them appropriately to the different unscheduled operations.

The deviation authority that appeared in proposed § 135.263(f) is moved to § 135.267(g) because it concerns only that section.

**Section 135.265—Flight time limitations and rest requirements: Scheduled operations.**

The words "air carrier" in this section have been changed to "certificate holder" in order to clarify that § 135.265 applies to any operator conducting scheduled operations under Part 135, not just air carriers.

The flight time limit in § 135.265(a)(3) has been changed from "32 hours in any 7 consecutive days" to "34 hours in any 7 consecutive days." (See the discussion of "Cumulative Flight Time Limits.")

Section 135.265(a)(5) has been amended to clarify that the rest periods referred to are the required rest periods in paragraphs (b) and (c). The proposed 9 hours between rest in paragraph (a)(5) is changed to 8 hours, and the proposed minimum of 7½ in paragraph (c)(1) is changed to 8 hours. Paragraph (a)(5) is also changed from the proposed rule by adding the phrase "qualified under this part for the operation being conducted." This phrase was inadvertently omitted from the proposal. This is consistent with other provisions imposing certain qualifications for certain types of operations.

Paragraphs (c) (1), (2), and (3) are changed from the proposed rule to clarify in the rule that the make-up rest must commence within 24 hours of the beginning of the reduced rest. (See the "Daily Rest Requirements Part 121 and Part 135 Scheduled Operations" section of this preamble.)

**Section 135.267—Flight time limitations and rest requirements: Unscheduled one- and two-pilot crews.**

For the first time, quarterly, biquarterly, and yearly flight time limits are imposed. Quarterly limits, as opposed to monthly limits, allow flexible scheduling for seasonal and on-demand operations and provide adequate rest for flight crewmembers engaged in such operations. The rule requires 13 rest periods of at least 24 hours in each calendar quarter, as proposed, instead of 24 hours off in 7 days. This provides for the same number of days off as are required for Part 121 and scheduled Part 135 operators, and at the same time recognizes that unscheduled pilots, particularly in remote operating locations, may not find it convenient or necessary to take one day off every 7 days.

Daily flight time limits for one- and two-pilot crews remain 8 and 10 hours, respectively, in every 24 consecutive hours. However, § 135.267(c), which is adopted as proposed, allows an operator and flight crewmember to use a schedule of regular daily duty hours rather than a rolling 24-hour clock.

In paragraph (a), editorial changes have been made: (1) to clarify that the section applies to unscheduled one- and two-pilot crews, and (2) to remove the words "duty during."

Paragraph (b)(2) is changed by adding the phrase "for the operation being conducted." This is consistent with other provisions imposing certain qualifications for certain types of operations.

Paragraph (c)(1) is changed to incorporate elements of proposed paragraph (e), and (e) is deleted in order to avoid redundancy. Also, the paragraph is changed to clarify that the regularly scheduled rest period may be more than 10 hours.

A new paragraph (e) is added which contains the make-up rest provisions for overflights formerly in § 135.263(e) of the proposed rule. The provisions were moved unchanged to this section for convenience and to enable the similar provisions that apply to augmented crews in § 135.269 and to helicopter emergency medical evacuation services (HEMES) in § 135.271 to be tailored to those sections.

Comments on the make-up rest provision stated that, since a 16-hour rest was considered excessive under current Part 121 and Part 135, the maximum make-up rest should be no more than 13 hours of rest. The FAA does not agree. Although 16 hours may be excessive as a routinely required rest, it is not excessive as a make-up

rest. The purpose of the make-up rest is to ensure that each flight crewmember is properly rested prior to the next assignment. The provision has always acted as an incentive to operators to plan for actual flight times, and leave an adequate margin of safety.

A number of commenters wrote that the make-up rest clause is inequitable because it applies to Part 135 operations and not Part 121 operations. Actually the provision applies to the unscheduled operations in Part 135, where daily flight time limits are actual limits. In scheduled operations under Part 135 (§ 135.265) and Part 121 operations, there is a limit to the number of scheduled flight time hours (8 hours) between required rest periods, but no specified limit to actual daily flight time (except for one-pilot crews in § 135.265). The wording and position of the make-up rest clause in proposed § 135.263(e) is changed to make it clear that it applies to the unscheduled flights in §§ 135.267 through 135.271, and not to the scheduled flights in § 135.265. The undesignated paragraph that followed proposed § 135.263(e) is deleted. The paragraph is unnecessary now that the application of the make-up rest provision has been clarified.

The deviation authority originally proposed in § 135.263(f) is transferred to § 135.267(g), the specific section to which it applies. If granted, a deviation will allow an operator who conforms with the current rules to continue under those rules for a period of time not to exceed 2 years. This will give operators who may experience difficulties because of the more restrictive cumulative flight time limits in new Part 135, Subpart F, additional time to adjust their operations. The reference to § 135.269 has been removed from the deviation authority since the current rules do not address augmented crews, and the deviation authority is not intended to apply to those operating under exemptions to the current rule. Each of these exemptions contains a provision that states that the exemption terminates with the adoption of any amendments to the Part 135 flight time limitations and rest requirements that provide for augmented crews.

The proposed rule stated that, within 2 years after the issuance of this rule, the Director of Flight Operations could issue operations specifications authorizing a deviation from any specific requirement of §§ 135.267 and 135.269 if he or she finds that the deviation provides a substantially equivalent standard of safety. Commenters pointed out that the proposal did not limit either the duration of the deviation or the time within which

the FAA must respond to a request for a deviation. To correct the proposed language, the final rule makes the deviation effective for up to 2 years after the effective date of this rule, and allows an operator who has requested a deviation to operate under the current rule until the FAA has reviewed the request and made a final determination.

One commenter also suggested that deviations be discouraged and that requests for deviations be reviewed by personnel specifically trained in flight crew stress and fatigue management. The FAA intends that the deviation authority will provide a smooth transition to compliance with the new rule. The FAA will base its approval for allowing a deviation on the certificate holder's need for additional time and its ability to maintain a comparable level of safety.

**Section 135.269—Flight time limitations and rest requirements: Unscheduled three- and four-pilot crews.**

Section 135.269 provides flight time limitations and rest requirements for augmented crews which in the past have always been handled by exemption. This section limits not only hours of flight deck duty, but also hours of duty and hours aloft.

Paragraph (b) is redesignated as paragraph (d) and moved to the end of the section. Proposed paragraph (c) becomes paragraph (b) and the cross references are changed accordingly. This is done to make the organization of this section consistent with the rest of the subpart.

The term "flight time" in paragraphs (b)(2) and (c) is changed to "flight deck duty" in order to make the language consistent with similar provisions in Part 121 (§§ 121.507 and 121.509). The word "approved" in proposed paragraph (b)(5) has been replaced by the word "adequate" to be consistent with the requirements applicable to augmented crews in Part 121.

A new paragraph (c) is added which contains the compensatory rest provisions, formerly in proposed § 135.263(e), which apply particularly to augmented crews.

No substantive comments on § 135.269 were received.

**Section 135.271—Helicopter hospital emergency medical evacuation service (HEMES).**

This rule provides specific flight time limits and rest requirements for helicopter hospital emergency medical evacuation services. The rule was based on FAA experience with numerous certificate holders operating under

exemption. The internal cross reference in proposed § 135.271(a) has been deleted, and the referenced material has been included in the final rule in full for the convenience of the user.

New compensatory rest provisions have been added to this section in paragraph (c). The FAA has decided that the provisions that were contained in proposed § 135.263(e) are not appropriate to HEMES operations, nor do they reflect the requirements of the exemptions on which this rule is based. As stated in the preamble to the NPRM, this rule is based on the terms of typical exemptions for emergency evacuations because of their undoubted public benefit. Typically, the exemption required the development of procedures for the termination of a HEMES assignment "When it becomes apparent that . . . a flight crewmember might be required, for an emergency situation, to exceed 8 hours duty during flight time." While the FAA does not find it necessary for the rule to be that stringent, a HEMES pilot who exceeds 8 flight hours during any 24-hour period will not be given a graduated rest. Instead, he or she must be relieved of the HEMES assignment and immediately given a minimum rest period of:

1. 12 consecutive hours for an assignment of less than 48 hours.
2. 16 consecutive hours for an assignment of more than 48 hours.

A flight crewmember who has exceeded 8 flight hours in any 24-hour period of a HEMES assignment, because of circumstances beyond the control of the certificate holder or flight crewmember, is assumed to be tired and may be unsafe to conduct additional flight operations under demanding conditions. It is highly improbable that any HEMES flight crewmember will exceed 8 flight hours during any 24-hour period of a HEMES assignment, because the assignment is for emergency medical evacuation purposes only. The HEMES assignment is not to be used for the routine transport of patients to, from, or between hospitals. Rather, it is intended to be used in bona fide emergency situations.

Proposed paragraph (d) is changed by adding a sentence which explains that the flight crewmember must be relieved if he or she has not or cannot receive 8 hours of rest during any 24 consecutive hour period of a HEMES assignment. It is amended to be consistent with the conditions of the exemptions. The word "approved" in proposed paragraph (f) has been replaced by the word "adequate" to be consistent with the language in other parts of the FAR.

Paragraph (h)(1) is changed from the proposed rule by removing the words "at least 24 hours but," in order to make paragraph (h) compatible with the new compensatory rest provisions in paragraph (c).

One commenter objected to the exclusion of fixed-wing aircraft from the HEMES rule. The FAA has excluded fixed-wing aircraft because they are not truly hospital based, and the flight crewmember of an airplane does not work in the same closely controlled environment experienced by a helicopter flight crewmember based at a hospital heliport.

#### Economic Evaluation

FAA analysis indicates that there should be no significant adverse impact associated with the amendments, and that they will not have a significant economic impact on a substantial number of small entities. The amendment includes a number of changes which should benefit the industry. However, it is not possible for the FAA to quantify the benefits associated with the rule, as these benefits can only be achieved by the air carriers after any operational flexibilities are translated into actual use.

#### Part 135 Benefits

The benefits which result specifically from weekly and other flight time limits derive from improved safety, since the maximums established will prevent a flight crewmember from accruing unsafe amounts of flight time. These benefits are not specifically quantifiable, due to a lack of detailed accident records. Specifically, accident records rarely address cumulative fatigue, which is the primary problem addressed by these amended standards.

There are additional benefits associated with the amendments, resulting from increased flexibility in crew scheduling options, and reduced penalties for exceeding flight time limits. Aircraft and crew utilization can improve, providing benefits. Scheduled operators, for example, can provide 9 hours of rest after less than 8 hours of flight time, down from a minimum 10 hours of rest under current rules. The minimum rest periods can be reduced, whereas previous minimums could not be reduced. Additionally, while the regulation for unscheduled operators before amendment required 16 hours of make-up rest if daily flight time limits were exceeded, the amendment allows for less compensating rest, unless the daily limit is exceeded by more than 1 hour. After amendment, there is no requirement for scheduled operators to

provide compensating rest when flight time limits are exceeded. The benefits associated with crew utilization flexibility and the change in make-up rest cannot be quantified with the data available. The changes can be evaluated economically by management only after experience with the flexibilities of the final rule.

#### Part 135 Costs

Part 135 operators incur costs as a result of these amendments in two ways. First, operators' scheduling costs will increase; second, decreased crew utilization will involve a cost for some operators. These costs will be higher for scheduled operators than for unscheduled operators.

Increased scheduling costs will affect both scheduled and unscheduled operators. Scheduled operators will be more heavily impacted than unscheduled operators, because the most complicated and restrictive new flight time limit is the one limiting scheduled operators to 34 hours of flight time in 7 consecutive days. This restriction will involve a more complex crew scheduling process for larger operators, since the crew scheduling task will be more complicated than at present.

The economic analysis assumes that the scheduling cost for the largest 50 commuter airlines will be approximately \$25,000 per year, approximately equivalent to one full-time clerk and additional office expenses. The next largest 50 commuters are assumed to incur one half the cost of the largest commuters, and the smallest 40 scheduled operators are assumed to incur a cost of \$2,500 yearly. The total scheduling cost impact for scheduled operators is thus approximately \$2,000,000 for the industry.

Nonscheduled air taxi operators may incur minor scheduling cost increases since they must now be concerned with quarterly, biquarterly, and annual total flight hours in addition to daily flight hours. This analysis assumes that one half of the approximately 4,000 unscheduled operators will incur no notable cost, due to their very small size. The other half of unscheduled operators is assumed to incur costs averaging \$500 per operator.

The weekly and other flight time limits also involve costs associated with crew utilization. Some scheduled firms will have to add to crew count in order to handle peaks of activity. Data submitted in comments was not substantive, however, and we expect that only about 20 scheduled operators will be affected, incurring a cost of

\$25,000 to \$50,000 per firm. The range of industry impacts is therefore between \$500,000 and \$1,000,000. The impact of crew utilization changes for unscheduled operators is expected to be negligible, based on review of the comments.

One final element of the amendment provides benefits to certain operators, particularly operators of unscheduled helicopter services. Section 135.267(c) refers to operations having regularly assigned duty periods, and it is discussed in the preamble to the final rule. This section involves a minor benefit which is not quantifiable, due to lack of information.

There are no other rule elements which involve notable increased costs for the Part 135 operator.

#### *Part 121 Costs and Benefits*

There is only one major change for Part 121, namely the new rule for daily rest requirements. The amendment is somewhat simpler than the rule prior to amendment and provides more flexibility in crew utilization. One potentially costly provision is that, under the present rules, there is no minimum rest requirement when crewmembers are scheduled for less than 8 hours of flight time in 24 consecutive hours. Under the amendment, there is a minimum 9-hour rest period required, which is reducible to 8 hours, as explained elsewhere. However, this cost is minimal and is balanced by benefits. The impact is minimal because the actual number of routings which would be affected by the amendment are very few.

Benefits of the Part 121 amendments result from better crew utilization, a possible reduction in the amount of time crews must be away from home, and, probably, a reduction in the number of days per month the typical crew member must work. The benefits of this amendment can only be quantified by air carriers, after experience is gained under the amendment.

For both classes of air operator, the FAA believes that the benefits of the amendments exceed any costs involved with showing compliance.

#### **Conclusion**

The FAA has determined that this amendment involves a regulation which is not major under Executive Order 12291 but is significant under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). This final rule is expected to generate no net cost, while maintaining or increasing the level of safety. Although there are a number of changes in the regulation, any potentially costly changes would be

balanced by benefits. Under the terms of the Regulatory Flexibility Act of 1980, Federal Agencies must review rules with particular concern about the impact rules might have on small entities. It is certified that this rule will not have significant economic impact on a substantial number of small entities because the only costs implied are minimal and balanced by the benefits of the rule. A summary of the economic evaluation is printed in the preamble to this final rule, and a copy of the full economic evaluation is filed in the docket and may also be obtained by contacting the person listed under "FOR FURTHER INFORMATION CONTACT."

#### **Compliance Date**

This rule will become effective October 1, 1985, at which time any certificate holder who wishes to may begin complying with the new flight time and rest requirements. However, the final compliance date of this rule is delayed until October 1, 1986, in order to allow certificate holders ample time to reschedule and bring their operations into full compliance with this rule. The delayed compliance date is particularly intended to give those few operators who have flight schedules that depend on less than 8 hours of rest time to reschedule those flights.

#### **List of Subjects**

##### *14 CFR Part 121*

Aviation safety, Air carriers, Aircraft, Airmen, Charter flights, Reporting and recordkeeping requirements.

##### *14 CFR Part 135*

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

#### **Rule**

In consideration of the foregoing, the Federal Aviation Administration amends Parts 121 and 135 of the Federal Aviation Regulations (14 CFR Parts 121 and 135) as follows:

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

1. 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).

2. By revising the table of contents of Subpart Q of Part 121 to read as follows:

#### **Subpart Q—Flight Time Limitations and Rest Requirements: Domestic Air Carriers**

Sec.

121.470 Applicability.

121.471 Flight time limitations and rest requirements: All flight crewmembers.

3. By revising Subpart Q of Part 121 to read as follows:

#### **Subpart Q—Flight Time Limitations and Rest Requirements: Domestic Air Carriers**

##### **§ 121.470 Applicability.**

This subpart prescribes flight time limitations and rest requirements for domestic air carriers.

##### **§ 121.471 Flight time limitations and rest requirements: All flight crewmembers.**

(a) No domestic air carrier may schedule any flight crewmember and no flight crewmember may accept an assignment for flight time in scheduled air transportation or in other commercial flying if that crewmember's total flight time in all commercial flying will exceed—

- (1) 1,000 hours in any calendar year;
- (2) 100 hours in any calendar month;
- (3) 30 hours in any 7 consecutive days;
- (4) 8 hours between required rest periods.

(b) Except as provided in paragraph (c) of this section, no domestic air carrier may schedule a flight crewmember and no flight crewmember may accept an assignment for flight time during the 24 consecutive hours preceding the scheduled completion of any flight segment without a scheduled rest period during that 24 hours of at least the following:

- (1) 9 consecutive hours of rest for less than 8 hours of scheduled flight time.
- (2) 10 consecutive hours of rest for 8 or more but less than 9 hours of scheduled flight time.

(3) 11 consecutive hours of rest for 9 or more hours of scheduled flight time.

(c) An air carrier may schedule a flight crewmember for less than the rest required in paragraph (b) of this section or may reduce a scheduled rest under the following conditions:

(1) A rest required under paragraph (b)(1) of this section may be scheduled for or reduced to a minimum of 8 hours if the flight crewmember is given a rest period of at least 10 hours that must begin no later than 24 hours after the commencement of the reduced rest period.

(2) A rest required under paragraph (b)(2) of this section may be scheduled for or reduced to a minimum of 8 hours if the flight crewmember is given a rest period of at least 11 hours that must

begin no later than 24 hours after the commencement of the reduced rest period.

(3) A rest required under paragraph (b)(3) of this section may be scheduled for or reduced to a minimum of 9 hours if the flight crewmember is given a rest period of at least 12 hours that must begin no later than 24 hours after the commencement of the reduced rest period.

(4) No air carrier may assign, nor may any flight crewmember perform any flight time with the air carrier unless the flight crewmember has had at least the minimum rest required under this paragraph.

(d) Each domestic air carrier shall relieve each flight crewmember engaged in scheduled air transportation from all further duty for at least 24 consecutive hours during any 7 consecutive days.

(e) No domestic air carrier may assign any flight crewmember and no flight crewmember may accept assignment to any duty with the air carrier during any required rest period.

(f) Time spent in transportation, not local in character, that an air carrier requires of a flight crewmember and provides to transport the crewmember to an airport at which he is to serve on a flight as a crewmember, or from an airport at which he was relieved from duty to return to his home station, is not considered part of a rest period.

(g) A flight crewmember is not considered to be scheduled for flight time in excess of flight time limitations if the flights to which he is assigned are scheduled and normally terminate within the limitations, but due to circumstances beyond the control of the air carrier (such as adverse weather conditions), are not at the time of departure expected to reach their destination within the scheduled time.

#### **PART 135—AIR TAXI OPERATORS AND COMMERCIAL OPERATORS**

4. The authority citation for Part 135 continues to read as follows:

Authority: 49 U.S.C. 1354(a), 1355(a), 1421 through 1431, and 1502; 49 U.S.C. 106(g) (Revised Pub. L. 97-449, January 12, 1983).

5. By revising the table of contents of Subpart F of Part 135 to read as follows:

#### **Subpart F—Flight Crewmember Flight Time Limitations and Rest Requirements**

Sec.

135.261 Applicability.

135.263 Flight time limitations and rest requirements: All certificate holders.

135.265 Flight time limitations and rest requirements: Scheduled operations.

Sec.

135.267 Flight time limitations and rest requirements: Unscheduled one- and two-pilot crews.

135.269 Flight time limitation and rest requirements: Unscheduled three- and four-pilot crews.

135.271 Helicopter hospital emergency medical evacuation service (HEMES).

6. By revising Subpart F of Part 135 to read as follows:

#### **Subpart F—Flight Crewmember Flight Time Limitations and Rest Requirements**

##### **§ 135.261 Applicability.**

Sections 135.263 through 135.271 prescribe flight time limitations and rest requirements for operations conducted under this part as follows:

(a) Section 135.263 applies to all operations under this subpart.

(b) Section 135.265 applies to:

(1) Scheduled passenger-carrying operations except those conducted solely within the state of Alaska. "Scheduled passenger-carrying operations" means passenger-carrying operations that are conducted in accordance with a published schedule which covers at least five round trips per week on at least one route between two or more points, includes dates or times (or both), and is openly advertised or otherwise made readily available to the general public, and

(2) Any other operation under this part, if the operator elects to comply with § 135.265 and obtains an appropriate operations specification amendment.

(c) Sections 135.267 and 135.269 apply to any operation that is not a scheduled passenger-carrying operation and to any operation conducted solely within the State of Alaska, unless the operator elects to comply with § 135.265 as authorized under paragraph (b)(2) of this section.

(d) Section 135.271 contains special daily flight time limits for operations conducted under the helicopter emergency medical evacuation service (HEMES).

##### **§ 135.263 Flight time limitations and rest requirements: All certificate holders.**

(a) A certificate holder may assign a flight crewmember and a flight crewmember may accept an assignment for flight time only when the applicable requirements of §§ 135.263 through 135.271 are met.

(b) No certificate holder may assign any flight crewmember to any duty with the certificate holder during any required rest period.

(c) Time spent in transportation, not local in character, that a certificate

holder requires of a flight crewmember and provides to transport the crewmember to an airport at which he is to serve on a flight as a crewmember, or from an airport at which he was relieved from duty to return to his home station, is not considered part of a rest period.

(d) A flight crewmember is not considered to be assigned flight time in excess of flight time limitations if the flights to which he is assigned normally terminate within the limitations, but due to circumstances beyond the control of the certificate holder or flight crewmember (such as adverse weather conditions), are not at the time of departure expected to reach their destination within the planned flight time.

##### **§ 135.265 Flight time limitations and rest requirements: Scheduled operations.**

(a) No certificate holder may schedule any flight crewmember, and no flight crewmember may accept an assignment, for flight time in scheduled operations or in other commercial flying if that crewmember's total flight time in all commercial flying will exceed—

(1) 1,200 hours in any calendar year.

(2) 120 hours in any calendar month.

(3) 34 hours in any 7 consecutive days.

(4) 8 hours during any 24 consecutive hours for a flight crew consisting of one pilot.

(5) 8 hours between required rest periods for a flight crew consisting of two pilots qualified under this part for the operation being conducted.

(b) Except as provided in paragraph (c) of this section, no certificate holder may schedule a flight crewmember, and no flight crewmember may accept an assignment, for flight time during the 24 consecutive hours preceding the scheduled completion of any flight segment without a scheduled rest period during that 24 hours of at least the following:

(1) 9 consecutive hours of rest for less than 8 hours of scheduled flight time.

(2) 10 consecutive hours of rest for 8 or more but less than 9 hours of scheduled flight time.

(3) 11 consecutive hours of rest for 9 or more hours of scheduled flight time.

(c) A certificate holder may schedule a flight crewmember for less than the rest required in paragraph (b) of this section or may reduce a scheduled rest under the following conditions:

(1) A rest required under paragraph (b)(1) of this section may be scheduled for or reduced to a minimum of 8 hours if the flight crewmember is given a rest period of at least 10 hours that must begin no later than 24 hours after the

commencement of the reduced rest period.

(2) A rest required under paragraph (b)(2) of this section may be scheduled for or reduced to a minimum of 8 hours if the flight crewmember is given a rest period of at least 11 hours that must begin no later than 24 hours after the commencement of the reduced rest period.

(3) A rest required under paragraph (b)(3) of this section may be scheduled for or reduced to a minimum of 9 hours if the flight crewmember is given a rest period of at least 12 hours that must begin no later than 24 hours after the commencement of the reduced rest period.

(d) Each certificate holder shall relieve each flight crewmember engaged in scheduled air transportation from all further duty for at least 24 consecutive hours during any 7 consecutive days.

**§ 135.267 Flight time limitations and rest requirements: Unscheduled one- and two-pilot crews.**

(a) No certificate holder may assign any flight crewmember, and no flight crewmember may accept an assignment, for flight time as a member of a one- or two-pilot crew if that crewmember's total flight time in all commercial flying will exceed—

(1) 500 hours in any calendar quarter.

(2) 800 hours in any two consecutive calendar quarters.

(3) 1,400 hours in any calendar year.

(b) Except as provided in paragraph (c) of this section, during any 24 consecutive hours the total flight time of the assigned flight when added to any other commercial flying by that flight crewmember may not exceed—

(1) 8 hours for a flight crew consisting of one pilot; or

(2) 10 hours for a flight crew consisting of two pilots qualified under this Part for the operation being conducted.

(c) A flight crewmember's flight time may exceed the flight time limits of paragraph (b) of this section if the assigned flight time occurs during a regularly assigned duty period of no more than 14 hours and—

(1) If this duty period is immediately preceded by and followed by a required rest period of at least 10 consecutive hours of rest;

(2) If flight time is assigned during this period, that total flight time when added to any other commercial flying by the flight crewmember may not exceed—

(i) 8 hours for a flight crew consisting of one pilot; or

(ii) 10 hours for a flight crew consisting of two pilots; and

(3) If the combined duty and rest periods equal 24 hours.

(d) Each assignment under paragraph (b) of this section must provide for at least 10 consecutive hours of rest during the 24-hour period that precedes the planned completion time of the assignment.

(e) When a flight crewmember has exceeded the daily flight time limitations in this section, because of circumstances beyond the control of the certificate holder or flight crewmember (such as adverse weather conditions), that flight crewmember must have a rest period before being assigned or accepting an assignment for flight time of at least—

(1) 11 consecutive hours of rest if the flight time limitation is exceeded by not more than 30 minutes;

(2) 12 consecutive hours of rest if the flight time limitation is exceeded by more than 30 minutes, but not more than 60 minutes; and

(3) 18 consecutive hours of rest if the flight time limitation is exceeded by more than 60 minutes.

(f) The certificate holder must provide each flight crewmember at least 13 rest periods of at least 24 consecutive hours each in each calendar quarter.

(g) The Director of Flight Operations may issue operations specifications authorizing a deviation from any specific requirement of this section if he finds that the deviation is justified to allow a certificate holder additional time, but in no case beyond October 1, 1987, to bring its operations into full compliance with the requirements of this section. Each application for a deviation must be submitted to the Director of Flight Operations before October 1, 1986. Each applicant for a deviation may continue to operate under the requirements of Subpart F of this part as in effect on September 30, 1985 until the Director of Flight Operations has responded to the deviation request.

**§ 135.269 Flight time limitations and rest requirements: Unscheduled three- and four-pilot crews.**

(a) No certificate holder may assign any flight crewmember, and no flight crewmember may accept an assignment, for flight time as a member of a three- or four-pilot crew if that crewmember's total flight time in all commercial flying will exceed—

(1) 500 hours in any calendar quarter.

(2) 800 hours in any two consecutive calendar quarters.

(3) 1,400 hours in any calendar year.

(b) No certificate holder may assign any pilot to a crew of three or four pilots, unless that assignment provides—

(1) At least 10 consecutive hours of rest immediately preceding the assignment;

(2) No more than 8 hours of flight deck duty in any 24 consecutive hours;

(3) No more than 18 duty hours for a three-pilot crew or 20 duty hours for a four-pilot crew in any 24 consecutive hours;

(4) No more than 12 hours aloft for a three-pilot crew or 18 hours aloft for a four-pilot crew during the maximum duty hours specified in paragraph (b)(3) of this section;

(5) Adequate sleeping facilities on the aircraft for the relief pilot;

(6) Upon completion of the assignment, a rest period of at least 12 hours;

(7) For a three-pilot crew, a crew which consists of at least the following:

(i) A pilot in command (PIC) who meets the applicable flight crewmember requirements of Subpart E of Part 135;

(ii) A PIC who meets the applicable flight crewmember requirements of Subpart E of Part 135, except those prescribed in §§ 135.244 and 135.247; and

(iii) A second in command (SIC) who meets the SIC qualifications of § 135.245.

(8) For a four-pilot crew, at least three pilots who meet the conditions of paragraph (b)(7) of this section, plus a fourth pilot who meets the SIC qualifications of § 135.245.

(c) When a flight crewmember has exceeded the daily flight deck duty limitation in this section by more than 60 minutes, because of circumstances beyond the control of the certificate holder or flight crewmember, that flight crewmember must have a rest period before the next duty period of at least 16 consecutive hours.

(d) A certificate holder must provide each flight crewmember at least 13 rest periods of at least 24 consecutive hours each in each calendar quarter.

**§ 135.271 Helicopter hospital emergency medical evacuation service (HEMES).**

(a) No certificate holder may assign any flight crewmember, and no flight crewmember may accept an assignment for flight time if that crewmember's total flight time in all commercial flight will exceed—

(1) 500 hours in any calendar quarter.

(2) 800 hours in any two consecutive calendar quarters.

(3) 1,400 hours in any calendar year.

(b) No certificate holder may assign a helicopter flight crewmember, and no flight crewmember may accept an assignment, for hospital emergency medical evacuation service helicopter operations unless that assignment



provides for at least 10 consecutive hours of rest immediately preceding reporting to the hospital for availability for flight time.

(c) No flight crewmember may accrue more than 8 hours of flight time during any 24-consecutive hour period of a HEMES assignment, unless an emergency medical evacuation operation is prolonged. Each flight crewmember who exceeds the daily 8 hour flight time limitation in this paragraph must be relieved of the HEMES assignment immediately upon the completion of that emergency medical evacuation operation and must be given a rest period in compliance with paragraph (h) of this section.

(d) Each flight crewmember must receive at least 8 consecutive hours of rest during any 24 consecutive hour period of a HEMES assignment. A flight crewmember must be relieved of the HEMES assignment if he or she has not or cannot receive at least 8 consecutive hours of rest during any 24 consecutive hour period of a HEMES assignment.

(e) A HEMES assignment may not exceed 72 consecutive hours at the hospital.

(f) An adequate place of rest must be provided at, or in close proximity to, the hospital at which the HEMES assignment is being performed.

(g) No certificate holder may assign any other duties to a flight crewmember during a HEMES assignment.

(h) Each pilot must be given a rest period upon completion of the HEMES assignment and prior to being assigned any further duty with the certificate holder of—

(1) At least 12 consecutive hours for an assignment of less than 48 hours.

(2) At least 16 consecutive hours for an assignment of more than 48 hours.

(i) The certificate holder must provide each flight crewmember at least 13 rest periods of at least 24 consecutive hours each in each calendar quarter.

Issued in Washington, D.C., on June 3, 1985.

**Donald D. Engen,**

*Administrator.*

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