

---

**Monday**  
**January 19, 1981**

**Test Report**  
**121-168**

---

**Part XVI**

**Department of**  
**Transportation**

---

**Federal Aviation Administration**

---

**Elimination of Duties and Activities of**  
**Flight Crewmembers Not Required for**  
**the Safe Operation of Aircraft**

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

[Docket No. 20659; Amdt. Nos. 121-168; and 135-111]

**Elimination of Duties and Activities of Flight Crewmembers Not Required for the Safe Operation of Aircraft**

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

**ACTION:** Final rule.

**SUMMARY:** These amendments prohibit performance of nonessential duties and activities by flight crewmembers which are not required for the safe operation of aircraft during critical phases of flight. Nonessential flight crewmember duties and activities can create distractions in the flight crew compartment. These amendments require aircraft operators and flight crewmembers to assure an environment in the flight crew compartment that is free from such potentially dangerous distractions.

**EFFECTIVE DATE:** May 18, 1981.

**FOR FURTHER INFORMATION CONTACT:** Marvin J. Walker, Regulatory Review Branch (AVS-22), Safety Regulations Staff, Associate Administrator, for Aviation Standards, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591; telephone (202) 755-8714.

**SUPPLEMENTARY INFORMATION:****History**

This final rule is based on Notice of Proposed Rule Making No. 80-12 published in the *Federal Register* on August 28, 1980, (45 FR 57684). All interested persons have been given an opportunity to participate in the making of the rule, and due consideration has been given to all matters presented.

**Background**

Notice 80-12 was issued as a result of the FAA's growing awareness that certain activities and nonessential duties assigned to flight crewmembers by the air carrier are not required for the safe operation of aircraft. These nonessential duties and activities are possible sources of dangerous distraction to flight crewmembers and can result in a compromise of safety, especially during critical phases of flight. A review of data derived from the Federal Aviation Administration/National Aeronautics and Space Administration (NASA), Aviation Safety Reporting System (ASRS), revealed many examples of flight crew errors, omissions, and noncompliance with air

traffic control (ATC) clearances which reportedly resulted from distractions caused by the performance of nonessential duties and activities by flight crewmembers. A review of National Transportation Safety Board (NTSB) accident investigation reports further revealed that inadequate cockpit discipline in the flight crew compartment is a commonly cited cause of aviation accidents.

Notice 80-12 proposed adding new §§ 121.542 and 135.100 to the Federal Aviation Regulations (FAR) to eliminate nonsafety related duties and activities during critical phases of flight, thereby greatly reducing accident potential. Critical phases of flight were defined in the notice as all ground operations involving taxi, takeoff and landing, and other flight operations except cruise flight.

**Discussion of Comments**

Eighteen comments were received in response to Notice 80-12, representing the views of individuals, labor organizations, trade associations, airline companies, and other government agencies. The NTSB in its comment expressed unqualified approval of the proposals, as did one citizen's committee which responded to the notice. A majority of commenters expressed approval of the intent of the proposals. Several, however, suggested changes which would tailor the proposals to specific airline operations. Where practicable, these suggestions have been adopted.

Several commenters object that the definition of critical phases of flight as everything but cruise flight is too stringent, particularly for short-haul up and down operations where there is a minimum, if any, cruise portion of flight. They state that a sterile cockpit until cruise is simply not workable in the instance of these shorter flights and suggest that a hard altitude be specified instead. The FAA agrees. The definition of critical phases of flight is expanded in the flight operations area to allow nonessential duties and activities to be conducted during cruise flight at any altitude, and during climbout and descent above 10,000 feet.

One commenter specifically questions the practicality of prohibiting all extraneous conversation between a pilot and passengers on board small charter aircraft operating under Part 135 of the FAR. The FAA does not agree. The objective of the rule is to reduce distractions in the cockpit. Extraneous conversation in the cockpit during critical phases of flight causes flight crew distraction in small as well as large aircraft. Therefore, Part 135

operators carrying passengers in the same compartment occupied by flight crewmembers should ensure that those passengers are briefed concerning their responsibilities under the law. The FAA considers extraneous conversation, as it pertains to this rule, to be a dialogue not related to the safe operation of an aircraft, such as discussions concerning politics or the passing scenery.

A number of commenters object to the proposals as being ambiguous and lacking definition. They state that the proposals would place both operators and flight personnel in an untenable interpretation dilemma since the list of duties and activities prohibited in the proposals is noninclusive. These commenters suggest that the FAA not issue open-ended rules such as the ones proposed, but rather leave determinations as to which specific duties and activities are unnecessary for the safe operation of aircraft and when they are to be prohibited to the individual operators involved. They suggest that each operator submit a cockpit sterilization procedure to the FAA for approval by the Administrator. The FAA does not agree that the proposals are in any way ambiguous or vague. The rules are clear; they categorically state that airlines shall not require their flight crewmembers to perform nonsafety related duties during critical phases of flight and that flight crewmembers shall not conduct nonsafety related activities which could cause distractions in the flight crew compartment during critical phases of flight. They further state that the pilot-in-command shall not permit any activity during a critical phase of flight which would distract flight crewmembers from the performance of their duties. Critical phases of flight is an expression which is commonly used in discussions concerning flight crew workloads. These are the phases of a flight in which the flight crew is busiest, such as during takeoff and landing and instrument approaches. When many complex tasks are performed in a short time interval, distracting events could cause errors and significant reductions in the quality of work performed. The performance of a nonsafety related duty or activity when flight crew workload is heavy could be the critical event which precludes a flight crewmember from performing an essential function such as extending the landing gear prior to touchdown.

Several of these commenters further state that the proposals would be too difficult to enforce. They suggest that the intent of the proposals to achieve a sterile cockpit during critical phases of

flight could best be furthered by having each operator determine which duties and activities should be prohibited and incorporate them into its training program. The FAA does not agree that the rule is too difficult to enforce. Principal operation inspectors will assure air carrier compliance through review of manuals and procedures. Individual compliance will be assured through en route surveillance, as in the past. Violations of this rule will be pursued as vigorously as those of any other FAR. The FAA does not object to individual operators incorporating additional examples of nonessential duties and activities into their manuals and training programs, however the minimum provisions of these rules must be met.

Several commenters state their belief that individual airline sterile cockpit procedures already in existence have worked well, and that therefore the proposals are not necessary. They state that the adoption of sterile cockpit procedures on a voluntary basis is the most desirable alternative to the proposals in Notice 80-12. The FAA does not agree. A background history of events leading to the formulation of the proposals, including attempts by the FAA to promote voluntary compliance with practices which would prevent cockpit distractions during critical phases of flight, was given in Notice 80-12. Efforts by the FAA to encourage periods of voluntary cockpit sterilization have not been totally successful as evidenced by hundreds of recent ASRS reports detailing incidents of distractions in the flightcrew compartment, and by the continued occurrence of aircraft accidents such as the September 1978 PSA mid-air collision near San Diego in which such unnecessary activities as crewmembers engaging in extraneous conversation have been found to play a part.

Several commenters question the need for the proposed rules given the existence of Federal Aviation Regulations which concern flight safety and cockpit management. They point to regulations which vest the pilot-in-command with full control and responsibility as to the operation of an aircraft, and which prohibit persons from operating an aircraft in a careless or reckless manner. The existence of these regulations alone is insufficient. None of the current Federal Aviation Regulations specifically prohibits performance of nonsafety related duties and activities during critical phases of flight. The need for such a rule is made clear in Notice 80-12 where the Eastern Airlines crash in Charlotte, North

Carolina, and the PSA collision near San Diego are discussed as examples of accidents in which a breakdown of cockpit discipline played a part.

One commenter questions the use of ASRS data to support the proposal. He inquires into the type and amount of data reviewed and whether the data was randomly picked. The FAA reviewed 475 ASRS examples of distractions in the cockpit. The period of review spanned from July 1978, when the ASRS program was first conceived, to March 1980. The following table lists the categories stored in the computer and the number of reports in each category for which distraction was judged to be the reason for the reported error:

Categories reviewed	Number of distractions
Altitude alert.....	209
Alerts and warnings.....	16
False alarms.....	20
Ground proximity warning system.....	38
Cockpit display.....	60
Aircraft equipment malfunction.....	91
Checklist.....	40
	475

ASRS reports of distractions in categories involving paperwork problems, public address systems, flight attendants, company radios, and extraneous conversations were also reviewed. A given ASRS report reviewed by the FAA may have spoken to a combination of the above categories.

This commenter objects to use of the NTSB report on the PSA midair collision in San Diego in support of the proposal, since the Air Line Pilots Association (ALPA) has petitioned the NTSB to reconsider the probable cause of that collision. The FAA does not agree that reference to the NTSB report was in any way inappropriate. ALPA's June 9, 1980, petition for reconsideration of the probable cause of the San Diego crash does not challenge the NTSB's statements concerning the extraneous conversation taking place in the PSA cockpit preceding the collision. In this regard, the NTSB in its accident report stated: "Although the conversation was not causal, it does point out the dangers inherent in this type of cockpit environment during descent and approach to landing." The FAA is in agreement with the NTSB's assessment of the dangers associated with extraneous conversation. The fact that ALPA has petitioned the NTSB has no bearing on these rules.

This commenter states further that if additional cockpit management

regulations are needed, they should be dealt with in Part 91 of the regulations which are applicable to all pilots and not just to air carriers and air taxi operators. The FAA does not agree. The amendments apply to Parts 121 and 135 in order to assure the highest level of safety possible for those engaging in air transportation. Applying the same amendments to Part 91 would be impractical and unnecessary because of the many different types of operations conducted under that part and because Part 91 operations do not involve the traveling public.

One commenter who is in favor of the proposal suggests that the definition of critical phases of flight should not include taxi since accidents during taxi are extremely rare. The FAA does not agree. Serious accidents during taxi have occurred, several of which have involved fatalities. For example, on March 27, 1977, a K.L.M. Boeing 747 collided with a taxiing Pan American Boeing 747 at Los Rodeos (Tenerife) Airport killing 583 persons. On December 20, 1972, 10 persons lost their lives when a North Central Airlines DC-9 collided with a taxiing Delta Airlines Convair 880. This commenter is also concerned that certain passenger information announcements by flight crews during taxi will be prohibited by the proposal. Studies of ASRS reports show that cabin announcements made by flight crewmembers during critical phases of flight can be dangerously distracting. The rules are clear. Flight crewmembers shall not make cabin announcements during taxi, unless such announcements are in response to safety related situations such as announcements made to direct passengers to take their seats until the aircraft has arrived at the gate.

One commenter asks if a flight attendant may, for example, enter the cockpit to report an illness on board the aircraft or whether there could be a report made of malfunctioning galley equipment. A flight attendant's decision to enter the cockpit during critical phases of flight to make a report must be tempered by good judgment. Certainly, a flight attendant would not, for example, be prohibited from reporting an illness or disturbance which was of a serious nature. Proper flight attendant training will greatly aid in making the proper decision. Flight attendants shall not enter the cockpit during critical phases of flight to report cabin mechanical malfunctions that are not safety related, such as broken movie projectors or inoperative coffee makers.

One commenter is concerned that the sterile atmosphere generated by the

proposals could mask subtle incapacitation. The FAA does not agree. There are several other symptoms of subtle incapacitation other than the absence of verbal communications and flight crewmembers are trained to recognize them. Another commenter points out that extraneous conversation under certain circumstances enhances safety by assuring alertness of flight crewmembers. There is considerable merit to this comment and the FAA's decision to modify the definition of critical phases of flight is based in part upon this concern. However, in view of this modified definition of critical phases of flight, the FAA has determined that the prohibition against extraneous conversation will not adversely affect safety because of the relatively short period of time during a flight in which such conversation is prohibited.

Similarly the FAA disagrees with the views of another commenter who states that the working conditions which would result from the proposals would encourage an atmosphere of noncommunication and distrust between cockpit crew and cabin attendants. Again, extraneous conversation is to be prohibited for such a relatively short period of total flight time that overall communication between cockpit crew and cabin attendants will not be significantly affected.

One commenter states that good judgment cannot be legislated, and that it must be accomplished by establishment of sound company policy and procedures, and effective training. The FAA agrees that the institution by each operator of proper cockpit sterilization procedures in its manuals and training programs would further the intent of the rules. However, while the FAA supports the existence of such company policy, its existence alone is not sufficient since company policy does not have the effect of law and cannot be enforced by the FAA.

One commenter recommends that the rules address the conduct of nonfunctioning (jumpseat) crewmembers in the cockpit. The FAA agrees that the presence of such persons in the cockpit could be potentially distracting, and therefore the proposals are revised to require that the pilot in command prohibit activity which is distracting to flight crewmembers by any cockpit occupant during critical phases of flight. The FAA does not consider the mere presence of a duly authorized FAA inspector or nonfunctioning crewmember in the cockpit to be a distraction which is in violation of these rules.

#### Description of the Amendments

These amendments add two new sections to the Federal Aviation Regulations, §§ 121.542 and 135.100. Both sections use identical language in prohibiting the performance of nonessential duties and activities by flight crewmembers or other occupants of the cockpit during critical phases of flight. The following are some examples of flight crewmember duties which are unnecessary for the safe operation of an aircraft: company-required calls made for such nonsafety related purposes as ordering galley supplies and confirming passenger connections; PA announcements made to promote passenger entertainment including announcements pointing out sights of interest; and time spent in the flight crew compartment filling out company paycards and personnel records.

With respect to the prohibition against the performance of nonsafety related activities, the proposals have been revised to reflect that no flight crewmember shall engage in any activity during a critical phase of flight which would distract any flight crewmember from his or her duties or which would interfere in any way with the proper conduct of those duties. In addition, the pilot in command is now required to prohibit any activity by any cockpit occupant during a critical phase of flight which is distracting to a flight crewmember. Notice 80-12 addressed only the conduct of those persons who were required flight crewmembers. The proposals were revised to respond to commenters concerned with disruptive conduct by crewmembers deadheading on board a flight. In addition, the proposals have been revised by adding an example of a nonessential activity; i.e., reading publications not related to the proper conduct of a flight. Critical phases of flight is expanded in the final rules to allow nonessential duties and activities to be conducted above 10,000 feet, and during cruise flight at any altitude. The definition of critical phases of flight is modified in response to those commenters who state that the definition set forth in Notice 80-12 is too stringent for short haul operations.

The proposals have been further revised by adding the word "communications" to the list of those activities which are sometimes prohibited. Such communications may, for example, include interphone exchanges between cabin crew and flight deck crew, and the sounding of bells in the cockpit to summon the attention of flight deck crewmembers.

#### Adoption of the Amendments

Accordingly, Parts 121 and 135 of the Federal Aviation Regulations (14 CFR 121 and 135) are amended effective May 18, 1981, as follows:

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

1. By adding a new § 121.542 to read as follows:

##### § 121.542 Flight crewmember duties.

(a) No certificate holder shall require, nor may any flight crewmember perform, any duties during a critical phase of flight except those duties required for the safe operation of the aircraft. Duties such as company required calls made for such nonsafety related purposes as ordering galley supplies and confirming passenger connections, announcements made to passengers promoting the air carrier or pointing out sights of interest, and filling out company payroll and related records are not required for the safe operation of the aircraft.

(b) No flight crewmember may engage in, nor may any pilot in command permit, any activity during a critical phase of flight which could distract any flight crewmember from the performance of his or her duties or which could interfere in any way with the proper conduct of those duties. Activities such as eating meals, engaging in nonessential conversations within the cockpit and nonessential communications between the cabin and cockpit crews, and reading publications not related to the proper conduct of the flight are not required for the safe operation of the aircraft.

(c) For the purposes of this section, critical phases of flight includes all ground operations involving taxi, takeoff and landing, and all other flight operations conducted below 10,000 feet, except cruise flight.

Note.—Taxi is defined as "movement of an airplane under its own power on the surface of an airport."

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

2. By adding a new § 135.100 to read as follows:

##### § 135.100 Flight crewmember duties.

(a) No certificate holder shall require, nor may any flight crewmember perform, any duties during a critical phase of flight except those duties required for the safe operation of the aircraft. Duties such as company

required calls made for such nonsafety related purposes as ordering galley supplies and confirming passenger connections, announcements made to passengers promoting the air carrier or pointing out sights of interest, and filling out company payroll and related records are not required for the safe operation of the aircraft.

(b) No flight crewmember may engage in, nor may any pilot in command permit, any activity during a critical phase of flight which could distract any flight crewmember from the performance of his or her duties or which could interfere in any way with the proper conduct of those duties. Activities such as eating meals, engaging in nonessential conversations within the cockpit and nonessential communications between the cabin and cockpit crews, and reading publications not related to the proper conduct of the flight are not required for the safe operation of the aircraft.

(c) For the purposes of this section, critical phases of flight includes all ground operations involving taxi, takeoff and landing, and all other flight operations conducted below 10,000 feet, except cruise flight.

**Note.**—Taxi is defined as "movement of an airplane under its own power on the surface of an airport."

(Secs. 313(a) and 601 through 605 of the Federal Aviation Act of 1958 (49 U.S.C. 1354(a), 1421 through 1425); Sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c))).

**Note.**—The Federal Aviation Administration has determined that this document involves regulations which are not significant under Executive Order 12044, as implemented by Department of Transportation Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). A copy of the regulatory evaluation prepared for this action is contained in the regulatory docket. A copy of it may be obtained by contacting the person identified above under the caption "FOR FURTHER INFORMATION CONTACT."

This rule is a final order of the Administrator of the FAA under the Federal Aviation Act of 1958, as amended [49 U.S.C. 1485]. As such, it is subject to review only by the courts of appeals of the United States or the United States Court of Appeals for the District of Columbia.

Issued in Washington, DC, on January 14, 1981.

**Langhorne Bond,**  
*Administrator.*

[FR Doc. 81-1824 Filed 1-14-81; 1:32 pm]

**BILLING CODE 4910-13-M**