

~~121-199~~

# Corrections

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This section of the FEDERAL REGISTER contains editorial corrections of previously published Presidential, Rule, Proposed Rule, and Notice documents and volumes of the Code of Federal Regulations. These corrections are prepared by the Office of the Federal Register. Agency prepared corrections are issued as signed documents and appear in the appropriate document categories elsewhere in the issue.

Tuesday, September 27, 1988, make the following corrections:

1. On page 37602, in the first column, in the second complete paragraph, in the 23rd line, "See 400" should read "See 40".
2. On page 37603, in the first column, in the second complete paragraph, in the 15th line, "260.22(d)(2)(4)" should read "260.22(d)(2)-(4)".
3. On the same page, in the second column, in the 15th line, "methylene, chloride" should read "methylene chloride".
4. On page 37606, in Table 6, in the second column, the fourth line should read "0.006" and the sixth line should read "0.005".
5. On the same page, in Table 6, in the third column, the fourth line should read "0.003" and the sixth line should read "0.004".

BILLING CODE 1505-01-D

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Parts 121 and 135

[Docket No. 19110; Amdt. Nos. 121-199, 135-27]

#### Airborne Low-Altitude Windshear Equipment and Training Requirements

##### Correction

In rule document 88-22088 beginning on page 37688 in the issue of Tuesday, September 27, 1988, make the following corrections:

1. On page 37693, in the first column, in the second complete paragraph, in the fifth line, "§ 121.443(c)(1)(iii)" should read "§ 121.433(c)(1)(iii)", and in the eighth line, "§ 121.443(c)(1)" should read "§ 121.433(c)(1)".

BILLING CODE 1505-01-D

## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 261

[SW-FRL-3454-2]

#### Hazardous Waste Management System; Identification and Listing of Hazardous Waste; Proposed Exclusion

##### Correction

In proposed rule document 88-22037 beginning on page 37601 in the issue of

Amd. 121-199

91-205

**DEPARTMENT OF TRANSPORTATION****Federal Aviation Administration****14 CFR Parts 61, 71, and 91**

[Docket No. 25304, Amdt. 61-80, 71-11, 91-205]

RIN: 2120-AC35

**Terminal Control Area (TCA) Classification and TCA Pilot and Navigational Equipment Requirements****AGENCY:** Federal Aviation Administration (FAA), DOT.**ACTION:** Final rule.

**SUMMARY:** This action revises the classification and pilot and equipment requirements for conducting operations in terminal control areas (TCA). Specifically, the rule: (1) Establishes a single-class TCA; (2) requires the pilot-in-command of a civil aircraft to hold at least a private pilot certificate, except for a student pilot who has received certain documented training; and, (3) eliminates the helicopter exception from the minimum navigational equipment requirement. These actions are expected to enhance the safety of operations in a TCA.

**EFFECTIVE DATE:** January 12, 1989.

**FOR FURTHER INFORMATION CONTACT:** Mr. Reginald C. Matthews, Airspace-Rules and Aeronautical Information Division, ATO-200, Federal Aviation Administration, 800 Independence Avenue SW., Washington, DC 20591, telephone (202) 267-8783.

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

On June 16, 1987, the Federal Aviation Administration (FAA) issued Notice 87-7 (52 FR 22918) proposing to require all aircraft operating within 30 miles of a TCA primary airport to be equipped with a transponder with Mode C. Additionally, Notice 87-7 proposed to: (1) Establish other pilot and equipment requirements associated with operations in a TCA, and (2) establish a single-class TCA which would replace the existing three groups of TCA's.

Notice 87-7 is premised on the conclusions of the National Airspace Review (NAR) Task Group 1-2.1, comprised of representatives from the FAA and aviation industry, which studied the terminal air traffic control (ATC) system in 1983. Additionally, an FAA TCA Review Task Group composed entirely of FAA employees met in the aftermath of the August 1986 midair collision that occurred within the Los Angeles TCA over Cerritos, California. The TCA Review Task

Group's specific agenda was to review all aspects of the TCA program including measuring TCA effectiveness and making recommendations for improving TCA traffic flows and, in particular, for enhancing the overall safety of operations in and around TCA airspace.

**Analysis of Comments**

As a result of recent legislation requiring the FAA to issue rules regarding Mode C transponder equipage in airspace where terminal radar is used for separation of aircraft (Pub. L. 100-202 and Pub. L. 100-223), the transponder and Mode C requirements proposed in Notice 87-7 have been consolidated and addressed in Amendment 91-203. The FAA issued Amendment 91-203, "Transponder with Automatic Altitude Reporting Capability Requirement," on June 17, 1988 (53 FR 23356; June 21, 1988).

Accordingly, this final action is limited to the proposals in Notice 87-7 which dealt with the TCA classification, helicopter navigational equipment requirements, and pilot qualification for flight in a TCA.

The FAA received approximately 7,000 comments concerning the proposals in Notice 87-7. In addition, the FAA received approximately 43,000 pre-printed form letters that did not address the specifics of the proposals in Notice 87-7 but were generally critical of the more restrictive rules associated with flight in large terminal areas. The comments concerning the transponder and transponder with Mode C proposals were addressed in the preamble to Amendment 91-203 and are not addressed in this final rule action. The following is a categorization and discussion of the substantive comments received.

**Climb Corridors**

An aviation organization, as well as other individual commenters, suggested that the FAA should seriously consider establishing arrival and departure corridors for primary airports that are currently in TCA's instead of continuing to establish and retain TCA's with existing designs. Numerous commenters agreed with this position, stating that the FAA should establish arrival and departure corridors for air carrier aircraft which would be similar to climb corridors that are used by military aircraft.

A simulation of the climb/descent corridor concept was conducted in the Boston, Massachusetts, area. One TCA and three corridor configurations were tested. The simulation revealed that, while the use of corridors did provide a

degree of safety, these corridors cannot provide the required airspace to vector, sequence, and meter effectively the variety and number of aircraft that demand service at major terminal airports. Based on this evaluation, it was concluded that the use of corridors would result in a substantial loss in airport and airspace efficiency with a corresponding increase in arrival and departure delays. This concept was more recently reviewed by the TCA Task Group, and the group confirmed the earlier findings of the tests.

**TCA Design**

Several aviation organizations agreed with the proposal in Notice 87-7 that would eliminate the three classifications of TCA's and create a single-class TCA. Several organizations and many individual commenters offered comments concerning the FAA's announced plans to revise its airspace design procedures associated with TCA's. Some commenters favored this action, some were of the opinion that TCA's should encompass more airspace, and others generally objected for economic reasons. Other commenters suggested that the FAA establish visual flight rules (VFR) routes or corridors through TCA's so that aircraft may traverse a TCA rather than having to circumnavigate.

On September 17, 1987, the FAA issued an internal directive, Notice N7400.21, which effectively revised FAA Handbook 7400.2, *Procedures for Handling Airspace Matters*. This directive made the TCA standardization and simplification plans announced in Notice 87-7 a reality. Under this directive, air traffic field elements must review each existing TCA in light of the announced standardized dimensions. An integral part of each review is an examination of manpower and equipment resources needed to accommodate any resulting increase in workload. However, a TCA will be modified for operational and/or safety benefits only and not for the purpose of standardization. If a modification is determined to be feasible and necessary, then a proposal would be discussed with the public in an informal airspace meeting before a notice of proposed rulemaking is initiated. The public will be given an opportunity to actively participate in the TCA design development during the informal airspace meetings, and to comment on the proposed configuration after a notice of proposed rulemaking is published.

Additionally, the recently revised TCA design guidelines include a requirement to establish VFR TCA

transition routes where possible. These routes are to be procedurally designated in portions of the TCA where transiting aircraft would least interfere with the TCA traffic flow. The routes would also be published on appropriate aeronautical charts. Pilots desiring to fly through the TCA would know where to position their aircraft when requesting clearance through the TCA. While pilots should not infer that these routes will be available in all instances, many aircraft may be accommodated with minimal delay. Operations on these routes must meet all the equipment requirements for operations in a TCA.

#### Charting

An aviation organization, in general support of the proposed transponder requirements, stated that prominent landmarks in the vicinity of TCA's should be depicted on FAA aeronautical charts so that pilots can avoid the TCA by referencing these landmarks, if that is their intent. Other commenters made TCA charting recommendations.

As a continuing practice, the FAA does depict prominent landmarks on sectional and terminal area charts. In many cases, requests for depicting these landmarks originate from users through the FAA's terminal ATC facilities. Although the agency believes that existing terminal area charts provide sufficient detail for a pilot to be able to circumnavigate the TCA, the FAA is continually working with aviation organizations, the Department of Defense, and the National Ocean Service to improve the associated charting.

#### Comment Period Too Short

An aviation organization stated that the FAA showed a disregard for the airspace users in regulates by not providing for a longer public comment period for Notice 87-7. Several commenters were critical of the extended comment period provided by the FAA, and requested further extension.

The FAA believes the period for comment including the extension was sufficient to permit full public comment on the proposed rule. The FAA extended the original comment period 30 days in response to a request from an aviation association to facilitate circularization of the notice to that association's members. The FAA is aware that many general aviation pilots receive notification of proposed rulemaking only through user associations and, in this particular case, noted that an extension of the comment period would not jeopardize the ability of the agency to

reach final rulemaking action in a timely manner.

#### Helicopters

A national aviation association stated that there was no information provided in Notice 87-7 that would indicate that a problem exists with helicopters operating in TCA's under the current navigational equipment exclusion as authorized under letters of agreement with ATC facilities at these TCA's. This association stated that there would be a significant cost to users to equip the helicopter fleets of some association members with the required navigational equipment. Further, this organization stated that such navigational equipment could not be used for the type of low-level navigation flown by helicopters. For the smaller helicopters, the organization stated that expensive modification to aircraft would be necessary to house the navigational equipment. In many cases, this organization argued, such equipment is simply not needed; e.g., for local flight training or agricultural operations and, for some helicopters, the added weight poses a penalty in the form of a reduced useful load.

The current minimum navigational equipment requirement for aircraft operating in a TCA ensures that each such equipped aircraft is capable of providing ATC with accurate position data. This requirement also facilitates more precise navigation along routes contained in ATC clearances. Helicopters no longer represent a small percentage of the aircraft operating in TCA's nor are they limited by operational capability with respect to flight within TCA airspace, which was the rationale applied to their original exclusion in § 91.90. Their versatility has brought about a significant rise in operations in and around busy metropolitan areas, particularly those where TCA's exist. It is the FAA's belief that helicopters must be treated in the same manner as any other aircraft while operating in a TCA. The need for safety, especially since a significant number of passengers will be transported from airports within the TCA's (i.e., inter-city transport), argues against the contention that helicopters should be viewed as "special applications" type aircraft.

#### Effects on the Expanded East Coast Plan (EECP)

An aviation organization questioned whether the FAA considered the effect of expanded and new TCA's on the progress or effectiveness of the EECP. This organization was of the opinion that the proposed TCA expansions and the institution of new TCA's in the

airspace covered by the EECP would undermine 5 years of planning by air traffic specialists and would undoubtedly conflict with the intended benefits of the EECP.

Phase I of the EECP was implemented February 12, 1987. The final segment of Phase II was implemented on March 10, 1988. The proposals made in Notice 87-7 will have no effect on the EECP's realignment of Jet Routes or very high frequency omnidirectional range (VOR) Federal Airways and the associated benefits of the plan.

#### Public Involvement

Several commenters suggested that the FAA should form working groups composed of representatives from government and the aviation community to study the problems that the proposed requirements are supposed to solve. Most of these commenters stated that they believed that this group should be charged with the development of workable solutions. An aviation organization supporting this suggestion stated that these working groups should involve local FAA ATC personnel and users of both high and low performance aircraft that engage in commercial and non-commercial flight activity. Another organization was of the opinion that the FAA should utilize user forums and pay more attention to user comments in developing TCA's which should serve the requirements and safety needs of all airspace users.

As stated in the notice, the recommendations detailed in the proposal were made with the involvement of the industry through the National Airspace Review (NAR) Task Group 1-2.1. The NAR effort was subsequently affirmed by the special FAA TCA Review Task Group. The recommendations were made after both groups had performed an indepth analysis of TCA's.

The FAA believes that the NAR process, described earlier, provided a format similar to that requested by commenters. However, prior to developing final actions, the FAA must initiate rulemaking procedures under the provisions of the Administrative Procedure Act to involve the public as a whole. In addition, the FAA will attempt to solicit input from the public prior to any major change to any existing or proposed TCA configuration.

#### Training

Some commenters expressed opinions that the proposed student pilot restrictions would result in a decrease in the number of student pilots and,

therefore, adversely affect the number of future airline and military pilots.

The FAA does not agree that student pilots who are motivated toward professional flying will be deterred from flight training because of added TCA training requirements. In fact, the FAA believes that prospective professional pilots will recognize the benefits of early exposure to TCA procedures training for their future careers.

An aviation organization and a local airport authority suggested that the FAA should have gone further and prohibited student pilots from operating at all high density TCA airports. The airport authority stated that operation in a high density TCA requires a very high level of flight experience to cope with the demands placed upon a pilot by ATC. Additionally, the aviation organization suggested that the duration of any authorization for a student pilot to operate in a TCA should be limited to a 30-day period. Another aviation organization suggested that the student pilot should have at least received training in the last 90 days in order for the instructor pilot endorsement to be effective and that the instructor pilot providing the training should endorse the student's logbook accordingly.

The FAA does not agree that student pilots should be prohibited from operating at all high density TCA airports. Although operation at such airports requires a high degree of familiarity with the required procedures, a student pilot can gain this familiarity through required flight instruction in operations at each specific high density airport at which the student is authorized to operate. However, the FAA does not agree with the feasibility of blanket endorsement for operations at all such airports since the student pilot has not yet acquired the experience, knowledge, and skill to operate in widely varying terminal areas without obtaining instruction on operating in each particular terminal area. In addition, the FAA believes that student pilot operations should be prohibited at certain high traffic density airports, as specified in proposed § 91.90(b)(2), because of the extremely high level of complexity at these locations. The FAA does agree that the recency of the training received is a valid consideration in determining the adequacy of a student pilot's ability to operate in a TCA. The FAA now requires student pilots to obtain flight instruction in each make and model of aircraft flown every 90 days in order to operate that aircraft in solo flight. The TCA student endorsement would fall into the same category.

Another commenter stated that proposed § 61.95(b) is not clear as to the need for actual flight instruction in a specific TCA to which a student may operate on a cross-country flight. This commenter recommended that specific instructions in flight in the more complex TCA's be required but may not be necessary for operations into other less complex TCA's. Another aviation organization agreed that a 90-day endorsement is a realistic requirement to ensure that student pilots have adequate knowledge and skills to operate safely in TCA airspace. However, this organization stated that the FAA failed to adequately support the proposed requirement for a student to have received instruction at each airport in a TCA where he/she may choose to land on solo flights. This organization proposed revising §§ 61.95 and 91.195 to include separate items relating to ground instruction and appropriate endorsement, and flight instruction and endorsement.

The operating environment and special operating conditions remain unique at each TCA and, therefore, demand specific instruction in each one to ensure safe student pilot operation. Similarly, operating conditions at each airport within the surface area of a given TCA will be complex and unique and require that a student receive instruction at each such airport before operating at that airport solo. For these reasons, the FAA agrees that the wording of § 61.95 as proposed in Notice 87-7 should be clarified in this regard. The language of the final rule will mandate that the required flight instruction must include at least one flight in each TCA in which a student will be authorized to conduct solo flight and at least one takeoff and landing at each airport within the surface area of a TCA to which the student will operate. In any regard, the actual number of these types of instructional operation should be determined by the student's instructor.

One aviation organization stated that it was unsuccessful in determining whether the 12 TCA's cited in the notice of proposed rulemaking involve flight training schools and student pilots. However, this organization stated that a simple instructor pilot endorsement would be adequate for helicopter students as most of their operations; i.e., hovering and low altitude operations along charted helicopter routes, do not presently affect other controlled operations in a TCA.

Since each TCA and each airport or heliport within a TCA imposes a unique set of operating circumstances, a student

pilot needs to receive instruction for each separate TCA and each airport or heliport within a TCA at which he/she operates. Therefore, a separate endorsement for each TCA operation should be received.

#### Regulatory Evaluation

The FAA published Notice 87-7 on June 16, 1987, addressing four issues, three of which might have some economic impact. One issue deals with changes in requirements for pilot certification. The second issue concerns the requirements for a transponder with Mode C within a 30-mile radius of a TCA primary airport. The third issue is the requirement for helicopters to be equipped with navigational instruments similarly to other aircraft within a TCA.

#### Pilot Certification

In the amendment to § 91.90, the FAA is requiring that the pilot-in-command of a civil aircraft operating within a TCA hold at least a private pilot certificate or be a student pilot who has a logbook endorsement by an authorized flight instructor certifying receipt of ground instruction, dual-flight training in the specific TCA, and competency to depart and land at the specific TCA primary airport as well as to transit through the TCA.

The FAA has concluded that the rules regarding pilot certification will have no adverse economic impact because they will merely formalize present training practices. Students are currently being provided with ground instruction and dual-flight training before being allowed to fly solo within either a Group I or II TCA, although no formal endorsement from an instructor is now required. The requirement for a logbook endorsement will impose only a minimal burden on flight instructors.

#### Transponder With Mode C

There were many comments relating to the economic impact of the requirement for a transponder with Mode C within 30 miles of a TCA primary airport. As a result of legislation, the FAA has addressed Mode C transponder issues under separate rulemaking action. Accordingly, the final rule contained herein deals only with the Notice 87-7 proposals that addressed single-class TCA's, helicopter navigational equipment and pilot requirements for operations in TCA's. However, the regulatory evaluation concerning the Mode C requirement is discussed in Docket No. 25531, Amendment No. 91-203.

### Helicopter Navigational Equipment Requirements

Effective July 1, 1989, this rule requires helicopters to operate under the same navigational equipment requirements as other aircraft in a TCA.

#### Costs

Some helicopter operators will have to purchase VOR or tactical air navigation (TACAN) equipment. The FAA estimates that the cost of this equipment is \$2,500. This cost is based on discussions with avionics manufacturers. Some commenters indicated that the cost of avionics was higher than the FAA estimates. There is, in fact, a wide variation in avionics cost. The FAA has selected the low cost equipment for its estimates since it meets the requirements of FAA regulations. Additional equipment features are not required as a result of this final rule.

Without an actual survey, it is difficult to determine the number of helicopters that may be impacted by this rule. In the notice of proposed rulemaking, the FAA estimated that about 50 percent of the helicopter fleet would be impacted by the proposed rule (includes the impact of the transponder with Mode C proposal). The commenters did not take exception to this estimate. A helicopter association stated that, typically, operators will equip their helicopters with transponders when it is necessary to routinely use TCA airspace for transit, departures, and landings. It is assumed that this typical scenario would apply to the equipage of navigational capability. It is further assumed that "typically" means at least 70 percent are equipped. The FAA estimates that approximately 25 percent of the helicopter fleet will operate in TCA airspace. Of this percentage, the vast majority is expected to be already equipped with the required navigational equipment.

Therefore, only 30 percent of the 25 percent that operate in a TCA need to be equipped with avionics. Since there are about 7,000 active helicopters (Source: "General Aviation Activity and Avionics Survey," FAA, December 1987) in the fleet, some 525 helicopters would be required to purchase avionics. At \$2,500 for the navigational equipment, the cost to the helicopter industry would be \$1,313,000. A yearly maintenance cost of about 5 percent or \$66,000 per year must be added to this.

#### Benefits

The accident record for the last 10 years indicates that there have not been any midair collisions involving

helicopters within TCA's. The historical record is not necessarily a reliable indicator of prospective accidents. It is clear that the ability to navigate more precisely with less deviations along a route, and the ability to provide ATC with more accurate position data, reduce the probability of a midair collision. If these regulations prevent only one accident involving a helicopter, the benefits would clearly exceed the costs of equipping them.

#### Final Regulatory Flexibility Determination

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

The FAA criteria for a substantial number of small entities is a number which is not less than 11 and which is more than one-third of the small entities subject to the proposed rule. A significant economic impact is one having an annual cost of more than \$3,700 for an unscheduled operator of aircraft for hire.

The Initial Regulatory Flexibility Analysis published with the notice of proposed rulemaking indicated that the original proposed rule would not have a significant impact on a substantial number of small entities. This initial analysis indicated that the proposals would not affect the operations or impose any costs on the individual flight schools and flying clubs because their student training activities would not be affected. Since the annualized cost for the required navigational equipment is only about \$200, Part 135 operators would not be impacted significantly.

There were numerous comments with respect to the impact on small businesses. The vast majority of these comments addressed the proposed transponder with Mode C requirement and did not directly address the requirements for small helicopter businesses to operate in a TCA with avionic requirements similar to other aircraft. One helicopter association did indicate that the typical helicopter operating in a TCA would be equipped with a transponder with Mode C. The FAA also believes this to be the case in regard to the required navigational equipment. For these reasons, it is certified that this rule will not have a significant effect on a substantial number of small entities.

#### Trade Impact Assessment

The rule will have no impact on trade opportunities for both the U.S. firms doing business overseas and foreign firms doing business in the United States.

#### Federalism Determination

The amendment set forth herein would not have substantial direct effects on the States, on the relationship between the National Government and the States, or on the distribution of power and responsibilities among the various levels of Government. The regulations set forth in this final rule would be promulgated pursuant to the authority in the Federal Aviation Act of 1958, as amended (49 U.S.C. 1301, *et seq.*) which has been construed to preempt State law regulating the same subject. Therefore, in accordance with Executive Order 12612, it is determined that such regulations do not have federalism implications warranting the preparation of a Federalism Assessment.

#### The Rule

For the reasons stated above, the FAA is adopting the single-class TCA, student pilot endorsement, and helicopter navigational equipment provisions contained in Notice 87-7. The following is a discussion of the regulatory changes contained in this final rule:

#### Single Class TCA

Effective January 12, 1989, the regulations pertaining to TCA's are amended by removing all references to Group I, II, and III TCA's. With this effort all TCA's will be simply referred to as a TCA.

#### Pilot Qualifications

The regulations pertaining to pilot qualifications for operations in a TCA take effect January 12, 1989. Generally, each pilot-in-command of a civil aircraft, in order to operate within TCA airspace or to takeoff or land at an airport within a TCA, must possess at least a private pilot certificate. However, student pilots may be permitted to conduct certain operations within a TCA except at 12 specific TCA primary airports, where student pilot operations are presently prohibited and will continue to be prohibited even with an endorsement. In order to be permitted to operate solo in a TCA, a student pilot must obtain specified training and logbook endorsement from his/her certified flight instructor prior to conducting such operations. In addition, training operations in or through a TCA may be

required to be conducted along routes and/or in accordance with procedures developed and specified by the ATC facility having jurisdiction over the TCA. Establishment of these routes/procedures may take the form of a memorandum issued by that ATC facility and may be communicated by a letter to airmen or a letter of agreement between the ATC facility and a flight school or flying club.

#### *Equipment Requirement*

Effective July 1, 1989, the navigation equipment exclusion for helicopters operating in a TCA will be eliminated. These aircraft will be bound by the same equipment and operating requirements as other aircraft. The required equipment may be either a VOR or TACAN receiver.

#### *Effective Date*

This final rule takes effect 90 days after publication with an exception for the requirement for navigation equipment on helicopters, which takes effect on July 1, 1989. The FAA is confident that this 90-day period will permit flight instructors ample time to become familiar with the procedures for training and certification of student pilots for operation in a TCA. The 90-day period will also provide a reasonable time for flight schools to enter into letters of agreement with local ATC facilities, where necessary, for operation of continuing flight training operation in a TCA. The compliance date for navigational equipment on helicopters is extended to July 1, 1989, to provide sufficient time for helicopter operators to purchase and install the required equipment.

#### **List of Subjects**

##### *14 CFR Part 61*

Certification—Pilots and flight instructors.

##### *14 CFR Part 71*

Controlled airspace, Terminal control area.

##### *14 CFR Part 91*

Aviation safety, Safety, Aircraft, Air traffic control, Pilots, Airspace, Air transportation, Airports.

#### **Adoption of the Amendments**

For the reasons set forth in the preamble, Parts 61, 71, and 91 of the Federal Aviation Regulations, are amended as follows:

### **PART 61—CERTIFICATION: PILOTS AND FLIGHT INSTRUCTORS**

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

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

2. Add a new § 61.95 to read as follows:

#### **§ 61.95 Operations in a terminal control area and at airports located within a terminal control area.**

(a) A student pilot may not operate an aircraft on a solo flight in the airspace of a terminal control area unless—

(1) The student pilot has received both ground and flight instruction from an authorized instructor on that terminal control area and the flight instruction was received in the specific terminal control area for which solo flight is authorized;

(2) The logbook of that student pilot has been endorsed within the preceding 90 days for conducting solo flight in that specific terminal control area by the instructor who gave the flight training; and

(3) The logbook endorsement specifies that the student pilot has received the required ground and flight instruction and has been found competent to conduct solo flight in that specific terminal control area.

(b) Pursuant to § 91.90(b), a student pilot may not operate an aircraft on a solo flight to, from, or at an airport located within a terminal control area unless—

(1) That student pilot has received both ground and flight instruction from an authorized instructor to operate at that airport and the flight and ground instruction has been received at the specific airport for which the solo flight is authorized;

(2) The logbook of that student pilot has been endorsed within the preceding 90 days for conducting solo flight at that specific airport by the instructor who gave the flight training; and

(3) The logbook endorsement specifies that the student pilot has received the required ground and flight instruction and has been found competent to conduct solo flight operations at that specific airport.

3. Amend § 61.193 to redesignate paragraphs (b)(4) and (b)(5) as paragraphs (b)(5) and (b)(6), respectively, and to add a new paragraph (b)(4) to read as follows:

#### **§ 61.193 Flight instructor authorizations.**

(b) The holder of a flight instructor certificate is authorized within the

limitations of his instructor certificate to endorse—

(4) In accordance with § 61.95, the logbook of a student pilot he has instructed authorizing solo flights in a terminal control area or at an airport within a terminal control area.

4. In § 61.195, revise paragraph (d) to read as follows:

#### **§ 61.195 Flight instructor limitations.**

(d) *Logbook endorsement.* He may not endorse a student pilot's logbook—

(1) For solo flight unless he has given that student flight instruction and found that student pilot prepared for solo flight in the type of aircraft involved;

(2) For a cross-country flight, unless he has reviewed the student's flight preparation, planning, equipment, and proposed procedures and found them to be adequate for the flight proposed under existing circumstances; or

(3) For solo flights in a terminal control area or at an airport within the surface area of a terminal control area unless he has given that student ground and flight instruction and has found that student prepared and competent to conduct the operations authorized.

### **PART 71—DESIGNATION OF FEDERAL AIRWAYS, AREA LOW ROUTES, CONTROLLED AIRSPACE, AND REPORTING POINTS**

5. The authority citation for Part 71 continues to read as follows:

Authority: 49 U.S.C. 1348(a), 1354(a), 1510; E.O. 10854; 49 U.S.C. 106(g) (Revised Pub. L. 97-449, January 12, 1983); 14 CFR 11.69.

6. Section 71.12 is revised to read as follows:

#### **§ 71.12 Terminal control areas.**

The terminal control areas listed in Subpart K of this part consist of controlled airspace extending upward from the surface or higher to specified altitudes, within which all aircraft are subject to operating rules and pilot and equipment requirements specified in Part 91 of this chapter. Each such location includes at least one primary airport around which the terminal control area is located.

#### **§ 71.401 [Amended]**

7. Section 71.401 (a) and (b) are consolidated and redesignated as a single § 71.403 with a section heading as set forth below (the paragraph designations (a) and (b) are removed).

§ 71.403 Terminal control areas.  
\* \* \* \* \*

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

8. The authority citation for Part 91 continues to read as follows:

Authority: 49 U.S.C. 1301(7), 1303, 1344, 1348, 1352 through 1355, 1401, 1421 through 1431, 1471, 1472, 1502, 1510, 1522, and 2121 through 2125; Articles 12, 29, 31, and 31(a) of the Convention on International Civil Aviation (61 Stat. 1180); 42 U.S.C. 4321 *et seq.*; E.O. 11514; 49 U.S.C. 106(g) (Revised Pub. L. 97-449, January 12, 1983).

9. Section 91.90 is revised to read as follows:

**§ 91.90 Terminal control areas.**

(a) *Operating rules.* No person may operate an aircraft within a terminal control area designated in Part 71 of this chapter except in compliance with the following rules:

(1) No person may operate an aircraft within a terminal control area unless that person has received an appropriate authorization from ATC prior to operation of that aircraft in that area.

(2) Unless otherwise authorized by ATC, each person operating a large turbine engine-powered airplane to or from a primary airport shall operate at or above the designated floors while

within the lateral limits of the terminal control area.

(3) Any person conducting pilot training operations at an airport within a terminal control area shall comply with any procedures established by ATC for such operations in terminal control area.

(b) *Pilot requirements.* (1) No person may takeoff or land a civil aircraft at an airport within a terminal control area or operate a civil aircraft within a terminal control area unless:

(i) The pilot-in-command holds at least a private pilot certificate; or,

(ii) The aircraft is operated by a student pilot who has met the requirements of § 61.95.

(2) Notwithstanding the provisions of (b)(1)(ii) of this section, at the following TCA primary airports, no person may takeoff or land a civil aircraft unless the pilot-in-command holds at least a private pilot certificate:

(i) Atlanta Hartsfield Airport, GA.

(ii) Boston Logan Airport, MA.

(iii) Chicago O'Hare International Airport, IL.

(iv) Dallas/Fort Worth International Airport, TX.

(v) Los Angeles International Airport, CA.

(vi) Miami International Airport, FL.

(vii) Newark International Airport, NJ.

(viii) New York Kennedy Airport, NY.

(ix) New York La Guardia Airport, NY.

(x) San Francisco International Airport, CA.

(xi) Washington National Airport, DC.

(xii) Andrews Air Force Base, MD.

(c) *Communications and navigation equipment requirements.* Unless otherwise authorized by ATC, no person may operate an aircraft within a terminal control area unless that aircraft is equipped with—

(1) An operable VOR or TACAN receiver (except for helicopter operations prior to July 1, 1989); and

(2) An operable two-way radio capable of communications with ATC on appropriate frequencies for that terminal control area.

(d) *Transponder requirement.* No person may operate an aircraft in a terminal control area unless the aircraft is equipped with the applicable operating transponder and automatic altitude reporting equipment specified in paragraph (a) of § 91.24, except as provided in paragraph (d) of that section.

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T. Allan McArtor,  
Administrator.

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