

## Title 14—AERONAUTICS AND SPACE

### Chapter I—Federal Aviation Adminis- tration, Department of Transporta- tion

[Docket No. 8130; Amdts. 1-14; 91-44; 97-561;  
121-33; 135-7]

### TERMINAL INSTRUMENT PROCE- DURES (TERPS); IMPLEMENTATION OF U.S. STANDARD

#### Miscellaneous Amendments to Chapter

The purpose of these amendments to Parts 1, 91, 97, 121, and 135 of the Federal Aviation Regulations is to implement new techniques and criteria associated with the U.S. Standard for Terminal Instrument Procedures, hereinafter referred to as TERPS. These amendments are based upon a notice of proposed rule making published in the FEDERAL REGISTER on May 5, 1967 (32 F.R. 6938).

Interested persons were afforded an opportunity to participate in the rule making through submission of written comments. Due consideration has been given to all relevant matter presented.

Comments received in response to the notice were generally in accord with the proposals. As stated in the preamble to the notice, it is anticipated that a period of approximately 2 years will be required to review and reissue all instrument approach procedures under the new criteria. Accordingly, comments were solicited as to whether two sets of rules should be prescribed, one directed to the new procedures, the other directed to the old procedures. As an alternative method, the notice proposed to immediately convert each present ceiling value in the instrument approach procedures to a minimum descent altitude or decision height, as appropriate, and replace the present rules with the new rules governing minimum descent altitude (MDA), or decision height (DH). Comments received in response to this proposal indicated a strong preference for immediate conversion of ceiling values to MDA and DH. Accordingly, provision has been made in § 91.116(b) for converting landing ceiling minimums, prescribed in procedures issued under the old criteria, to

MDA or DH by summing the ceiling minimum with the field elevation. The visibility minimum will be the applicable landing minimum, and descent will be limited by the minimum descent altitude (MDA) or decision height (DH), obtained by summing the prescribed ceiling minimum and published field elevation.

Where takeoff minimums are presently prescribed in the procedure in terms of ceiling and visibility, the ceiling minimum, as well as the visibility minimum, will continue in effect as a limitation for takeoff pending review and reissuance of the procedure under the revised criteria. When reissued under TERPS, ceiling minimums will no longer be prescribed for takeoff, except for those runways where a ceiling minimum is required to enable the pilot to see and avoid obstructions.

Although not contained in the notice, one comment suggested clarification of the term "lowest initial approach altitude for the airport" as used in §§ 91.23 and 91.83 (b) and (c), and as applicable in flight planning and designation of an alternate airport. Under the old criteria the minimum en route altitude (MEA) served as the initial approach altitude to the approach facility, unless a lower altitude was specified in the procedure. Under TERPS, the initial approach segment starts at the initial approach fix and ends at the intermediate fix; or, in some cases, no initial approach segment will be specified. In such cases, "initial approach altitude" would not be applicable. Accordingly, the language in §§ 91.23 and 91.83(b) has been clarified to read "lowest MEA, or MOCA, or altitude prescribed for the initial approach segment of the instrument approach procedure for that airport." Similar language has been substituted in §§ 121.619, 121.621, and 135.107.

Several comments indicated that § 91.116(c) of the proposal could be interpreted to apply civil airport takeoff minimums to aircraft operators other than those operating under Part 121, 129, or 135. As this result was not intended, the language of the paragraph as adopted herein has been changed to make it clear that the minimums apply to aircraft operating under Part 121, 129, or 135.

Some comments pointed out that the

language of § 91.117(b), as proposed, which prohibited the "operation" of an aircraft below the MDA or DH, unless certain conditions have been met, would in fact prohibit continuation of a precision approach to the decision height, since some variable altitude loss must be anticipated in making the transition from the approach to the missed approach at decision height. Recognizing this probability, the language of that section has been amended to provide that no person may "continue the approach" below the decision height unless the prescribed conditions are met.

One comment pointed out that ICAO Annex 10 (Specifications for Radio Navigation Aids) lists the localizer, glide slope, and outer marker and middle marker as "components" of the instrument landing system, and that the grouping of visual aids in § 91.117(c) with "components" was at variance with the ICAO document. Accordingly, the section has been revised to recognize this distinction between components and visual aids.

Additionally, in the interest of clarity, the language of § 91.117(c) has been changed to expressly require the adjustment of the straight-in minimums prescribed in Part 97, when either certain ground components or aids, or the related airborne equipment is inoperative, unusable or not utilized.

Since the determination of the availability or condition of runway centerline marking (RCLM) will depend on weather, time of day, state of deterioration, and other factors, it has been eliminated as an adjustment factor in the tables included in § 91.117(c). Since it is unnecessary to require an adjustment of minimums in all cases in which RCLM is unusable, the requirement for adjustment of minimums for unusable RCLM has been removed from the table. However, where a prescribed minimum is based upon the usability of that aid, the necessary adjustment will be shown in the particular procedure and will apply only when notice is given by a Notice to Airmen or by ATC that the marking is unusable.

A number of symbols and terms have been added, and certain of the definitions for symbols and terms included in § 97.3 have been clarified in accordance with

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comments and recommendations received: "Initial approach" has been defined as the approach segment between the initial approach fix and the intermediate fix; "initial approach altitude" has been expanded to indicate that more than one altitude may be prescribed in high altitude procedures; the terms "circle-to-land" and "straight-in landing" have been substituted for "circling approach" and "straight-in approach and landing" in the definitions for "C" and "S" to avoid any confusion with terminology used by ATC for other clearances; the definition for the term "MSA" has been retained as proposed and the definitions for "minimum sector altitudes" and "minimum safe altitudes" as they now appear in the TERPS handbook, will be changed to conform with this definition; the definition for "NOPT" has been broadened to indicate that no procedure turn is required, and that the altitude prescribed with the symbol will be applicable only when a procedure turn is not executed; the definition for "shuttle" has been expanded to indicate that it is a racetrack-type pattern and that the 2-minute time limit applies to the legs of the pattern.

A new Subpart C has been added to Part 97. Procedures now prescribed have been issued under Subpart B. New procedures issued under TERPS, or procedures which will be reviewed and reissued under TERPS, will be issued under Subpart C. When conversion of all procedures has been completed, Part 97 will be amended to delete one subpart.

The term "standard", as it was used in the notice in connection with the abbreviations for ALS, RCLS, SALS, and TDZL in § 1.2, has been deleted, since this is primarily a factor of concern only in the development of the procedure and in establishment of the MDA or DH and visibility minimums.

Certain additional abbreviations used in Part 91 (LOC, GS, IM, LDA, ASR, NDB(ADF), LFR) have been defined in § 1.2.

The proposed amendment to Part 97 which provided for deletion of the words "ceiling minimum" wherever it appeared as a limitation on the making of an instrument approach has been deleted, and the provision for summing the ceiling minimum and field elevation to obtain the MDA or DH has been substituted in § 91.116(b).

Appropriate sections of Parts 121 and 135 have been amended to reflect the reliance on visibility, MDA, and DH, as controlling factors for approach and landing, and to clarify the term "minimum initial approach altitude" as it applies in designation of an alternate airport. The term "weather conditions" has been substituted for "ceiling and ground visibility" in certain sections to accommodate those situations in which ceiling alone is controlling, or ceiling and visibility are controlling, depending on the procedure being used or the terms of the applicable operations specifications.

TERPS supersedes the U.S. Manual of Criteria for Standard Instrument Approach Procedures (1956), and contains

criteria for development of terminal procedures which reflect revised concepts and procedures made possible by the improvements mentioned above. TERPS was issued in September 1966, as FAA Handbook 8260.3, and has been adopted by the Departments of Army, Navy, Air Force, and the U.S. Coast Guard. Copies may be obtained from the Department of Transportation, Federal Aviation Administration, Distribution Unit, TAD-484.3, 800 Independence Avenue SW., Washington, D.C. 20590. Copies are also available for examination at any Regional or Area office of the FAA. Periodic revision and further development of the criteria is contemplated, and comments or recommendations are invited from interested persons at any time.

In consideration of the foregoing, Parts 1, 91, 97, 121, and 135 of the Federal Aviation Regulations are amended, effective November 18, 1967, as follows:

## PART 1—DEFINITIONS AND ABBREVIATIONS

### § 1.1 [Amended]

1. By adding the following definitions to § 1.1 in their proper alphabetical order:

"Minimum descent altitude" means the lowest altitude, expressed in feet above mean sea level, to which descent is authorized on final approach or during circle-to-land maneuvering in execution of a standard instrument approach procedure, where no electronic glide slope is provided.

"Precision approach procedure" means a standard instrument approach procedure in which an electronic glide slope is provided, such as ILS and PAR.

"Nonprecision approach procedure" means a standard instrument approach procedure in which no electronic glide slope is provided.

### § 1.2 [Amended]

2. By adding the following symbols to § 1.2 in their proper alphabetical order:

"ALS" means approach light system.

"ASR" means airport surveillance radar.

"GS" means glide slope.

"HIRL" means high-intensity runway light system.

"IM" means ILS inner marker.

"LDA" means localizer-type directional aid.

"LFR" means low-frequency radio range.

"LOC" means ILS localizer.

"MALS" means medium intensity approach light system.

"MDA" means minimum descent altitude.

"NDB(ADF)" means nondirectional beacon (automatic direction finder).

"NOPT" means no procedure turn required.

"RCLM" means runway centerline marking.

"RCLS" means runway centerline light system.

"REIL" means runway end identification lights.

"SALS" means short approach light system.

"TDZL" means touchdown zone lights.

## PART 91—GENERAL OPERATING AND FLIGHT RULES

### §§ 91.23, 91.83 [Amended]

3. By amending §§ 91.23(c) and 91.83 (b) by deleting the words "lowest initial approach altitude for the airport" and substituting in place thereof "lowest MEA, MOCA, or altitude prescribed for the initial approach segment of the instrument approach procedure for the airport."

4. By amending § 91.83(c) to read as follows:

(c) *IFR alternate airport weather minimums.* Unless otherwise authorized by the Administrator, no person may include an alternate airport in an IFR flight plan unless current weather forecasts indicate that, at the estimated time of arrival at the alternate airport, the ceiling and visibility at that airport will be at or above the following alternate airport weather minimums:

(1) If an instrument approach procedure has been published in Part 97 of this chapter for that airport, the alternate airport minimums specified in that procedure or, if none are so specified, the following minimums:

(i) Precision approach procedure: Ceiling 600 feet and visibility 2 statute miles.

(ii) Nonprecision approach procedure: Ceiling 800 feet and visibility 2 statute miles.

(2) If no instrument approach procedure has been published in Part 97 of this chapter for that airport, the ceiling and visibility minimums are those allowing descent from the MEA, approach, and landing, under basic VFR.

5. By deleting present § 91.117 and adding new §§ 91.116 and 91.117 reading as follows:

### § 91.116 Takeoff and landing under IFR: General.

(a) *Instrument approaches to civil airports.* Unless otherwise authorized by the Administrator (including ATC), each person operating an aircraft shall, when an instrument letdown to an airport is necessary, use a standard instrument approach procedure prescribed for that airport in Part 97 of this chapter.

(b) *Landing minimums.* Unless otherwise authorized by the Administrator, no person operating an aircraft (except a military aircraft of the United States) may land that aircraft using a standard instrument approach procedure prescribed in Part 97 of this chapter unless the visibility is at or above the landing minimum prescribed in that part for the procedure used. If the landing minimum in a standard instrument approach procedure prescribed in Part 97 of this chapter is stated in terms of ceiling and visibility, the visibility minimum applies. However, the ceiling minimum shall be added to the field elevation and that value observed as the MDA or DH, as appropriate to the procedure being executed.

(c) *Civil airport takeoff minimums.* Unless otherwise authorized by the Administrator, no person operating an aircraft under Part 121, 129, or 135 of this chapter may take off from a civil airport under IFR unless weather conditions are at or above the weather minimums for IFR takeoff prescribed for that airport in Part 97 of this chapter. If takeoff minimums are not prescribed in Part 97 of this chapter, for a particular airport, the following minimums apply to takeoffs under IFR for aircraft operating under those parts:

(1) Aircraft having two engines or less: 1 statute mile visibility.

(2) Aircraft having more than two engines: One-half statute mile visibility.

(d) *Military airports.* Unless otherwise prescribed by the Administrator, each person operating a civil aircraft under IFR into, or out of, a military airport shall comply with the instrument approach procedures and the takeoff and landing minimums prescribed by the military authority having jurisdiction on that airport.

(e) *Comparable values of RVR and ground visibility.* (1) If RVR minimums for takeoff or landing are prescribed in an instrument approach procedure, but RVR is not reported for the runway of intended operation, the RVR minimum shall be converted to ground visibility in accordance with the table in subparagraph (2) of this paragraph and observed as the applicable visibility minimum for takeoff or landing on that runway.

RVR (feet)	Visibility (statute miles)
1,600	$\frac{1}{4}$
2,400	$\frac{1}{2}$
3,200	$\frac{3}{8}$
4,000	$\frac{1}{2}$
4,800	$\frac{3}{4}$
5,000	1
8,000	$1\frac{1}{4}$

(f) *Use of radar in instrument approach procedures.* When radar is approved at certain locations for ATC purposes, it may be used not only for surveillance and precision radar approaches, as applicable, but also may be used in conjunction with instrument approach procedures predicated on other types of radio navigational aids. Radar vectors may be authorized to provide course guidance through the segments of an approach procedure to the final approach fix or position. Upon reaching the final approach fix or position, the pilot will either complete his instrument approach in accordance with the procedure approved for the facility, or will continue a surveillance or precision radar approach to a landing.

(g) *Use of low or medium frequency simultaneous radio ranges for ADF procedures.* Low frequency or medium frequency simultaneous radio ranges may be used as an ADF instrument approach aid if an ADF procedure for the airport concerned is prescribed by the Administrator, or if an approach is conducted using the same courses and altitudes for the

ADF approach as those specified in the approved range procedure.

(h) *Limitations on procedure turns.* In the case of a radar initial approach to a final approach fix or position, or a timed approach from a holding fix, or where the procedure specifies "NOPT" or "FINAL", no pilot may make a procedure turn unless, when he receives his final approach clearance, he so advises ATC.

§ 91.117 Limitations on use of instrument approach procedures (other than Category II).

(a) *General.* Unless otherwise authorized by the Administrator, each person operating an aircraft using an instrument approach procedure prescribed in Part 97 of this chapter shall comply with the requirements of this section. This section does not apply to the use of Category II approach procedures.

(b) *Descent below MDA or DH.* No person may operate an aircraft below the prescribed minimum descent altitude or continue an approach below the decision height unless—

(1) The aircraft is in a position from which a normal approach to the runway of intended landing can be made; and

(2) The approach threshold of that runway, or approach lights or other markings identifiable with the approach end of that runway, are clearly visible to the pilot.

If, upon arrival at the missed approach point or decision height, or at any time thereafter, any of the above requirements are not met, the pilot shall immediately execute the appropriate missed approach procedure.

(c) *Inoperative or unusable components and visual aids.* The basic ground components of an ILS are the localizer, glide slope, outer marker, and middle marker. The approach lights are visual aids normally associated with the ILS.

In addition, if an ILS approach procedure in Part 97 of this chapter prescribes a visibility minimum of 1,800 feet or 2,000 feet RVR, high-intensity runway lights, touchdown zone lights, centerline lighting and marking and RVR are aids associated with the ILS for those minimums. Compass locator or precision radar may be substituted for the outer or middle marker. Surveillance radar may be substituted for the outer marker. Unless otherwise specified by the Administrator, if a ground component, visual aid, or RVR is inoperative, or unusable, or not utilized, the straight-in minimums prescribed in any approach procedure in Part 97 of this chapter are raised in accordance with the following tables. If the related airborne equipment for a ground component is inoperative or not utilized, the increased minimums applicable to the related ground component shall be used. If more than one component or aid is inoperative, or unusable, or not utilized, each minimum is raised to the highest minimum required by any one of the components or aids which is inoperative, or unusable, or not utilized.

#### (1) ILS and PAR.

Component or aid	Increase decision height	Increase visibility (statute miles)	Approach category
LOC	ILS approach not authorized.		All.
GS	As specified in the procedure.		All.
OM, MM	50 feet	None	ABC.
OM, MM	50 feet	$\frac{1}{4}$	D.
ALS	50 feet	$\frac{1}{4}$	All.
SALS	50 feet	$\frac{1}{4}$	ABC.

<sup>1</sup> Not applicable to PAR.

#### (2) ILS with visibility minimum of 1,800 or 2,000 feet RVR.

Component or aid	Increase decision height	Increase visibility (statute miles)	Approach category
LOC	ILS approach not authorized.		All.
GS	As specified in the procedure.		All.
OM, MM	50 feet	To $\frac{1}{4}$ mile	ABC.
OM, MM	50 feet	To $\frac{1}{2}$ mile	D.
ALS	50 feet	To $\frac{1}{4}$ mile	All.
HIRL	None	To $\frac{1}{4}$ mile	All.
TDZL			
RCLS			
RCLM	As specified in the procedure.		All.
RVR	None	To $\frac{1}{4}$ mile	All.

#### (3) VOR, LOC, LDA, and ASR.

Component or aid	Increase MDA	Increase visibility (statute miles)	Approach category
ALS, SALS	None	$\frac{1}{4}$ mile	ABC.
HIRL, MALR, REILS	None	$\frac{1}{4}$ mile	ABC.

#### (4) NDB(ADF) and LFR.

Component or aid	Increase MDA	Increase visibility (statute miles)	Approach category
ALS	None	$\frac{1}{4}$ mile	ABC.

### PART 97—STANDARD INSTRUMENT APPROACH PROCEDURES

6. By amending Part 97 as follows:

a. By amending § 97.3 to read:

§ 97.3 Symbols and terms used in procedures.

As used in the standard terminal instrument procedures prescribed in this part—

(a) "A" means alternate airport weather minimum.

(b) "Aircraft approach category" means a grouping of aircraft based on a speed of 1.3 V<sub>0</sub> (at maximum certificated landing weight) or on maximum certificated landing weight. V<sub>0</sub> and the maximum certificated landing weight are those values as established for the aircraft by the certificating authority of

the country of registry. If an aircraft falls into two categories, it is placed in the higher of the two. The categories are as follows:

- (1) Category A: Speed less than 91 knots; weight less than 30,001 pounds.
- (2) Category B: Speed 91 knots or more but less than 121 knots; weight 30,001 pounds or more but less than 60,001 pounds.
- (3) Category C: Speed 121 knots or more but less than 141 knots; weight 60,001 pounds or more but less than 150,001 pounds.
- (4) Category D: Speed 141 knots or more but less than 166 knots; weight 150,001 pounds or more.
- (5) Category E: Speed 166 knots or more; any weight.

(c) Approach procedure segments for which altitudes (all altitudes prescribed are minimum altitudes unless otherwise specified) or courses, or both, are prescribed in procedures, are as follows:

(1) "Initial approach" is the segment between the initial approach fix and the intermediate fix or the point where the aircraft is established on the intermediate course or final approach course.

(2) "Initial approach altitude" means the altitude (or altitudes, in High Altitude Procedures) prescribed for the initial approach segment of an instrument approach.

(3) "Intermediate approach" is the segment between the intermediate fix or point and the final approach fix.

(4) "Final approach" is the segment between the final approach fix or point and the runway, airport, or missed-approach point.

(5) "Missed approach" is the segment between the missed-approach point, or point of arrival at decision height, and the missed-approach fix at the prescribed altitude.

(d) "C" means circling landing minimum, a statement of ceiling and visibility values, or minimum descent altitude and visibility, required for the circle-to-land maneuver.

(e) "Ceiling minimum" means the minimum ceiling, expressed in feet above the surface of the airport, required for takeoff or required for designating an airport as an alternate airport.

(f) "d" means day.

(g) "FAF" means final approach fix.

(h) "HAA" means height above airport.

(i) "HAT" means height above touchdown.

(j) "MAP" means missed approach point.

(k) "More than 65 knots" means an aircraft that has a stalling speed of more than 65 knots (as established in an approved flight manual) at maximum certificated landing weight with full flaps, landing gear extended, and power off.

(l) "MSA" means minimum safe altitude, an emergency altitude expressed in feet above mean sea level, which provides 1,000 feet clearance over all obstructions in that sector within 25 miles of the facility on which the procedure is based (LOM in ILS procedures).

(m) "n" means night.

(n) "NA" means not authorized.

(o) "NOPT" means no procedure turn required (altitude prescribed applies only if procedure turn is not executed).

(p) "Procedure turn" means the maneuver prescribed when it is necessary to reverse direction to establish the aircraft on an intermediate or final approach course. The outbound course, direction of turn, distance within which the turn must be completed, and minimum altitude are specified in the procedure. However, the point at which the turn may be commenced, and the type and rate of turn, is left to the discretion of the pilot.

(q) "RA" means radio altimeter setting height.

(r) "RVV" means runway visibility value.

(s) "S" means straight-in landing minimum, a statement of ceiling and visibility, minimum descent altitude and visibility, or decision height and visibility, required for a straight-in landing on a specified runway. The number appearing with the "S" indicates the runway to which the minimum applies. If a straight-in minimum is not prescribed in the procedure, the circling minimum specified applies to a straight-in landing.

(t) "Shuttle" means a shuttle, or race-track-type, pattern with 2-minute legs prescribed in lieu of a procedure turn.

(u) "65 knots or less" means an aircraft that has a stalling speed of 65 knots or less (as established in an approved flight manual) at maximum certificated landing weight with full flaps, landing gear extended, and power off.

(v) "T" means takeoff minimum.

(w) "TDZ" means touchdown zone.

(x) "Visibility minimum" means the minimum visibility specified for approach, or landing, or takeoff, expressed in statute miles, or in feet where RVR is reported.

b. By amending § 97.5 to read as follows:

§ 97.5 Bearings; courses; headings; radials; miles.

(a) All bearings, courses, headings, and radials in this part are magnetic.

(b) RVR values are stated in feet. Other visibility values are stated in statute miles. All other mileages are stated in nautical miles.

c. By adding a new Subpart C to read as follows:

#### Subpart C—TERPS Procedures

- Sec.
- 97.20 General.
- 97.21 Low or medium frequency range (L/MF) procedures.
- 97.23 Very high frequency omni range (VOR) and very high frequency-distance measuring equipment (VOR/DME) procedures.
- 97.25 Localizer (LOC) and localizer-type directional aid (LDA) procedures.
- 97.27 Nondirectional beacon (automatic direction finder) (NDB(ADF)) procedures.
- 97.29 Instrument landing system (ILS) procedures.

Sec.

97.31 Precision approach radar (PAR) and airport surveillance radar (ASR) procedures.

AUTHORITY: The provisions of this Subpart C issued under secs. 307, 313, 601, Federal Aviation Act of 1958; 49 U.S.C. 1348, 1354, 1421.

#### Subpart C—TERPS Procedures

##### § 97.20 General.

This subpart prescribes standard instrument approach procedures based on the criteria contained in the U.S. Standard for Terminal Instrument Approach Procedures (TERPS). The individual procedures are published in the FEDERAL REGISTER as amendments to this subpart, but due to their number and complexity are not included herein. For the convenience of the user the aeronautical data prescribed in standard instrument approach procedures are portrayed on instrument approach procedure charts and may be obtained from Coast and Geodetic Survey and other publishers of aeronautical charts.

§ 97.21 Low or medium frequency range (L/MF) procedures.

§ 97.23 Very high frequency omni range (VOR) and very high frequency-distance measuring equipment (VOR/DME) procedures.

§ 97.25 Localizer (LOC) and localizer-type directional aid (LDA) procedures.

§ 97.27 Nondirectional beacon (automatic direction finder) (NDB(ADF)) procedures.

§ 97.29 Instrument landing system (ILS) procedures.

§ 97.31 Precision approach radar (PAR) and airport surveillance radar (ASR) procedures.

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

7. By amending Part 121 as follows:

§ 121.579 [Amended]

a. By deleting the word "ceiling" in § 121.579(b) and substituting in place thereof the words "descent altitude or decision height."

§§ 121.613, 121.615, 121.625, 121.637 [Amended]

b. By deleting the words "ceilings and visibilities" in §§ 121.613, 121.615(a), 121.625, and 121.637(b) and substituting in place thereof the words "weather conditions."

§ 121.619 [Amended]

c. By deleting the words "minimum initial approach altitude to that airport" in § 121.619(a)(1) and substituting in place thereof the words "lowest MEA, MOCA, or altitude prescribed for the initial approach segment of the instrument approach procedure for that airport."

§ 121.621 [Amended]

d. By deleting the words "minimum initial approach altitude" in § 121.621 (a) (1) and substituting in place thereof "lowest MEA, MOCA, or altitude prescribed for the initial approach segment of the instrument approach procedure for that airport."

e. By amending § 121.637(a) (4) to read as follows:

§ 121.637 Takeoffs from unlisted and alternate airports: Domestic and flag air carriers.

(a) \* \* \*

(4) The weather conditions at that airport are equal to or better than the following:

(i) *Airports in the United States.* The weather minimums for takeoff prescribed in Part 97 of this chapter; or where minimums are not prescribed for the airport, 800-2, 900-1½, or 1,000-1.

(ii) *Airports outside the United States.* The weather minimums for takeoff prescribed or approved by the government of the country in which the airport is located; or where minimums are not prescribed or approved for the airport, 800-2, 900-1½, or 1,000-1.

§ 121.651 [Amended]

f. By amending § 121.651 by—

(1) Deleting the words "ceiling or ground visibility" and the word "is" as they appear in paragraph (a) and substituting, in place thereof, the words "weather conditions" and "are", respectively;

(2) Deleting the words "ceiling or" in paragraphs (b) and (c);

(3) Deleting the words "minimum

landing altitude" in paragraph (c) and substituting, in place thereof, the words "MDA or DH";

(4) Deleting the words "ceiling and" in the introductory clause of paragraph (d);

(5) Deleting the words "minimum landing altitude" in paragraph (d) (2) and substituting in place thereof, the term "MDA"; and

(6) Deleting the words "landing minimum landing altitude" in the concluding clause of paragraph (d) and substituting in place thereof, the words, "MDA or DH".

(7) Deleting the word "ceiling" wherever it appears in paragraph (e) and substituting in place thereof the words "MDA or DH".

§ 121.653 [Amended]

g. By amending § 121.653 as follows:

(1) By deleting the words "ceiling or ground visibility is" in paragraph (a) and substituting, in place thereof, the words, "weather conditions are".

(2) By deleting the words "ceiling or" in paragraph (b).

(3) By deleting the words "ceiling and" in paragraph (c).

(4) By deleting the words "minimum landing altitude" in paragraph (c) (2) and substituting, in place thereof, the term "MDA".

(5) By deleting the words "landing minimum altitude" in the concluding clause of paragraph (c) and substituting in place thereof, the words "MDA or DH".

(6) By deleting the word "ceiling" in paragraph (d) and substituting in place thereof, the words "MDA or DH".

**PART 135—AIR TAXI OPERATORS  
AND COMMERCIAL OPERATORS  
OF SMALL AIRCRAFT**

8. By amending Part 135 as follows:

§ 135.107 [Amended]

a. By deleting the words "that airport's minimum initial approach altitude" in § 135.107(b) and substituting in place thereof the words "the lowest MEA, MOCA, or altitude prescribed for the initial approach segment of the instrument approach procedure for that airport,".

§ 135.111 [Amended]

b. By amending § 135.111 as follows:

(1) By deleting the words "ceiling and" from the introductory clause of paragraph (b).

(2) By deleting the words "landing minimum altitude" in paragraph (b) (2) and substituting, in place thereof, the term "MDA".

(3) By deleting the words "landing minimum altitude" in the concluding phrase of paragraph (b) and substituting in place thereof the words "MDA or DH".

(4) By deleting the word "ceiling" where it first appears in paragraph (c) and substituting in place thereof the words "MDA or DH".

(5) By deleting the phrases "the ceiling is less than 300 feet or" and "the ceiling is less than 200 feet or" in paragraph (d).

(Secs. 307, 313, 601, Federal Aviation Act of 1958; 49 U.S.C. 1348, 1354, 1421)

Issued in Washington, D.C., on October 2, 1967.

D. D. THOMAS,  
Acting Administrator.