

any combination of defects, which seriously detracts from the appearance, or the edible or shipping quality of the strawberries. The following specific defects shall be considered as serious damage:

- (a) Soft berries;
- (b) Badly deformed berries;
- (c) Badly bruised berries;
- (d) Decayed or leaky berries;
- (e) Berries badly caked with dirt; and,
- (f) Berries with less than one-half of surface showing pink or red color.

§ 51.3124 Diameter.

"Diameter" means the greatest dimension measured at right angles to a straight line running from the stem to the apex.

The United States Standards for Grades of Strawberries contained in this subpart shall become effective July 1, 1965, and will thereupon supersede the United States Standards for Strawberries which have been in effect since March 23, 1942.

Dated: May 12, 1965.

G. R. GRANGE,
Deputy Administrator,
Marketing Services.

[F.R. Doc. 65-5197; Filed, May 17, 1965;
8:46 a.m.]

Chapter VII—Agricultural Stabilization and Conservation Service (Agricultural Adjustment), Department of Agriculture

[Amdt. 17]

PART 722—COTTON

Subpart—Acreage Allotment Regulations for the 1964 and Succeeding Crops of Upland Cotton

ERRONEOUS NOTICES AND TRANSFER OF COTTON ACREAGE AFFECTED BY NATURAL DISASTER

This amendment is issued pursuant to the Agricultural Adjustment Act of 1938, as amended (52 Stat. 31, as amended; 7 U.S.C. 1281 et seq.).

(a) The purpose of this amendment is to designate States and counties that have been affected by a natural disaster within the meaning of section 344(n) of the Act for the 1965 crop and to delete the provisions relating to erroneous notices of planted acreage which are covered in the regulations in Part 718 of this chapter.

(b) In order that determinations with respect to transfers of acreage for the 1965 crop may be made prior to the end of the cotton planting season, it is essential that this amendment be made effective as soon as possible. Accordingly, it is hereby determined and found that compliance with the notice, public procedure requirements and the 30-day effective date requirements of section 4

of the Administrative Procedure Act (60 Stat. 238; 5 U.S.C. 1003) is impracticable and contrary to the public interest and this amendment shall be effective upon filing of this document with the Director, Office of the Federal Register.

The acreage allotment regulations for the 1964 and succeeding crops of upland cotton (28 F.R. 11041, as amended) are amended as follows:

§ 722.225 [Amended]

1. Section 722.225 of the regulations is amended by deleting paragraph (b) therefrom.

2. Section 722.226 of the regulations is amended by adding a new paragraph at the end thereof as follows:

§ 722.226 Transfer of farm cotton acreage affected by a natural disaster.

(i) *Designated States and counties affected by a natural disaster for 1965.* It is hereby determined that a natural disaster consisting of flood or excessive rainfall in 1965 has prevented timely planting or replanting of a portion of the 1965 farm cotton allotments on some farms in the following designated States and counties:

COUNTIES APPROVED FOR FLOODED FARM TRANSFERS

ARKANSAS	
Crittenden.	Lee.
Cross.	Monroe.
Deshia.	Phillips.
ILLINOIS	
Alexander.	Pulaski.
KENTUCKY	
Fulton.	Hickman.
MISSISSIPPI	
Bolivar.	Lafayette.
Calhoun.	Tunica.
Coahoma.	Warren.
De Soto.	Washington.
Grenada.	Yalobusha.
Issaquena.	
MISSOURI	
Butler.	Pemiscot.
Dunklin.	Ripley.
Mississippi.	Scott.
New Madrid.	Stoddard.
TENNESSEE	
Gibson.	Obion.
Lake.	Shelby.
Lauderdale.	Tipton.

(Secs. 344(n), 375; 78 Stat. 177, 52 Stat. 66, as amended, 7 U.S.C. 1344(n), 1375)

Effective date. Date of filing this document with the Director, Office of the Federal Register.

Signed at Washington, D.C., on May 13, 1965.

H. D. GODFREY,
Administrator, Agricultural Sta-
bilization and Conservation Service.

[F.R. Doc. 65-5222; Filed, May 17, 1965;
8:48 a.m.]

Chapter IX—Consumer and Marketing Service (Marketing Agreements and Orders; Fruits, Vegetables, Tree Nuts), Department of Agriculture

[Lemon Reg. 160, Amdt. 1]

PART 910—LEMONS GROWN IN CALIFORNIA AND ARIZONA

Limitation of Handling

Findings. 1. Pursuant to the marketing agreement, as amended, and this part (Order No. 910), as amended, regulating the handling of lemons grown in California and Arizona, effective under the applicable provisions of the Agricultural Marketing Agreement Act of 1937, as amended (7 U.S.C. 601-674), and upon the basis of the recommendation and information submitted by the Lemon Administrative Committee, established under the said amended marketing agreement and order, and upon other available information, it is hereby found that the limitation of handling of such lemons, as hereinafter provided, will tend to effectuate the declared policy of the act.

2. It is hereby further found that it is impracticable and contrary to the public interest to give preliminary notice, engage in public rule-making procedure, and postpone the effective date of this amendment until 30 days after publication hereof in the FEDERAL REGISTER (5 U.S.C. 1001-1011) because the time intervening between the date when information upon which this amendment is based became available and the time when this amendment must become effective in order to effectuate the declared policy of the act is insufficient, and this amendment relieves restriction on the handling of lemons grown in California and Arizona.

Order, as amended. The provisions in paragraph (b) (1) (ii) of § 910.460 (Lemon Regulation 160, 30 F.R. 6430) are hereby amended to read as follows:

§ 910.460 Lemon Regulation 160.

- (b) Order. (1) * * *
- (ii) District 2: 385,950 cartons.

(Secs. 1-19, 48 Stat. 31, as amended; 7 U.S.C. 601-674)

Dated: May 13, 1965.

PAUL A. NICHOLSON,
Deputy Director, Fruit and Vegetable Division, Consumer and Marketing Service.

[F.R. Doc. 65-5198; Filed, May 17, 1965;
8:46 a.m.]

Title 46—SHIPPING

Chapter I—Coast Guard, Department of the Treasury

SUBCHAPTER K—MARINE INVESTIGATIONS AND SUSPENSION AND REVOCATION PROCEEDINGS

[CGFR 64-85]

PART 137—SUSPENSION AND REVOCATION PROCEEDINGS

Subpart 137.30—Appeals

TEMPORARY DOCUMENTS

The purpose for amending 46 CFR 137.30-15 regarding temporary documents is to revise procedures and to clarify issuance of temporary documents pending decisions on appeals by merchant mariners.

The revised procedures provide that a merchant mariner may file his request for a temporary document with the Examiner or any Officer in Charge, Marine Inspection, who will forward such request to the Examiner who conducted the hearing, rather than via the District Commander as in the past.

This amendment also clarifies the provision that an Examiner is authorized to grant a request for a temporary document, pending a decision on appeal, except when any one of two different situations exists; i.e., (1) the hearing transcript has been sent to the Commandant; or (2) the order of suspension or revocation rests on a finding of guilty for a serious offense, such as appears in § 137.03-5, or is otherwise of such a character that the presence of the person on board a vessel would be incompatible with the requirements of safety of life or property at sea. In either situation the request may be forwarded by the Examiner to the Commandant for action. There is no change with respect to the first situation. In the second situation an Examiner should not grant a request for a temporary document if he believes it would be incompatible with the requirements of safety of life or property at sea. Nevertheless, it is not considered inconsistent that the Commandant should consider such a request since opinions may differ as to whether or not it would be safe, in a particular case, to issue a temporary document pending a decision on appeal. In order to properly evaluate the circumstances in each case, the Commandant should have the hearing transcript available before ruling on the request and this will now be furnished to him in most cases.

As the amendment to 46 CFR 137.30-15 regarding temporary documents revises and clarifies Coast Guard procedures and delegated authority of Examiners, it is hereby found that it is exempt from compliance with the Administrative Procedure Act (respecting notice of proposed rule making, public rule making procedure thereon, and effective date requirements) by specific provisions in section 4 of this Act (5 U.S.C. 1003).

By virtue of the authority vested in me as Commandant, U.S. Coast Guard, by section 632 of Title 14, U.S. Code, and Treasury Department Order 120, July 31,

1950 (15 F.R. 6521), and others specifically listed with the regulation below, the following amendment to § 137.30-15 is prescribed and shall become effective on the date of publication of this document in the FEDERAL REGISTER:

§ 137.30-15 Temporary documents.

(a) Any person who has appealed from a decision suspending or revoking his document may file a written request for a temporary document with the Examiner who rendered the decision or with any Officer in Charge, Marine Inspection, for forwarding to such Examiner. The request will be granted by the Examiner except (1) when the hearing transcript has been forwarded to the Commandant, or (2) when, in the opinion of the Examiner, the order of suspension or revocation rests upon a finding of guilty for a serious offense of such a character that the presence of the person charged on board a vessel, either immediately or for the indefinite future, would be incompatible with the requirements of safety of life or property at sea, or for a serious offense found by the Examiner to have been committed willfully.

(b) If the transcript has been forwarded to the Commandant, or if the request is denied by the Examiner, the request shall be forwarded by the Examiner to the Commandant for final action. A temporary document may be issued in the discretion of the Commandant, except where such action, in the opinion of the Commandant, would be incompatible with the requirements of safety of life or property at sea.

(c) A temporary document shall be subject to such terms and conditions as the Commandant or Examiner may prescribe. However, all such documents shall provide that they expire not more than six months after issuance or upon service of the Commandant's decision on appeal, whichever occurs first. If a temporary document expires before the Commandant's decision is rendered, it may be renewed, after authorization by the Commandant, by the issuance of a new temporary document by an Officer in Charge, Marine Inspection.

(d) Copies of the temporary documents issued shall become a part of the record on appeal.

(R.S. 4405, as amended, 4462, as amended, and sec. 633, 63 Stat. 545; 46 U.S.C. 375, 416, 14 U.S.C. 633; Interpret or apply R.S. 4426, as amended, 4450, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 7, 54 Stat. 165, as amended, secs. 1 to 12, 60 Stat. 237-244, secs. 1, 2, 68 Stat. 484, sec. 3, 68 Stat. 675, sec. 3, 70 Stat. 675, sec. 3, 70 Stat. 152; 46 U.S.C. 239, 239a, 239b, 367, 390b, 404, 526f, 5 U.S.C. 1001-1011, 50 U.S.C. 198. Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167-9, Aug. 3, 1954, 19 F.R. 5195; 167-14, Nov. 26, 1954, 19 F.R. 8026; 167-15, Jan. 3, 1955, 20 F.R. 840; 167-14, June 29, 1955, 20 F.R. 4976; 167-20, June 18, 1956, 21 F.R. 4894)

Dated: May 7, 1965.

[SEAL]

W. D. SHIELDS,
Vice Admiral, U.S. Coast Guard,
Acting Commandant.

[F.R. Doc. 65-5213; Filed, May 17, 1965; 8:47 a.m.]

Title 14—AERONAUTICS AND SPACE

Chapter I—Federal Aviation Agency

[Reg. Docket No. 6643; Amdt. 77-1]

PART 77—OBJECTS AFFECTING NAVIGABLE AIRSPACE

Miscellaneous Amendments

The purpose of this amendment is to make certain minor clarifying amendments to Part 77 of the Federal Aviation Regulations, which became effective on May 1, 1965.

Section 77.19, by reference to § 77.28 (b) in the last paragraph, provides for application of the dimensions of clear zones for runways at civil airports to runways at all military airports. This was not intended. As currently written, § 77.28(b)(1) states that the primary surface for military airports is "the same elevation as the centerline of the runway." The section is being revised to make it clear that the primary surface undulates with the underlying surface.

In the interest of timely correction of these discrepancies, in view of the May 1, 1965, effective date of revised Part 77, and since these amendments are clarifying in nature, I find that notice and public procedure are impracticable and contrary to the public interest and that this amendment may therefore be made effective immediately.

In consideration of the foregoing, Part 77 is amended, effective immediately, as follows:

(1) The flush paragraph at the end of § 77.19(c) is amended to read as follows:

For the purpose of this subpart, a runway clear zone for civil airports, and for each military airport on which the longest runway is no more than 5,000 feet in length, is an area at ground level which begins at the end of each primary surface defined in § 77.27(a) and extends with the width of each approach surface defined in § 77.27 (b) and (c), to terminate directly below each approach surface slope at the point, or points, where the slope reaches a height of 50 feet above the elevation of the runway or 50 feet above the terrain at the outer extremity of the clear zone, whichever distance is shorter. For military airports with at least one runway more than 5,000 feet in length, the runway clear zone is the surface defined in § 77.28(b)(2).

(2) The first sentence of § 77.28(b)(1) is amended to read as follows: "A surface located on the ground or water longitudinally centered on each runway with the same length as the runway."

(Secs. 307, 313, 1101, Federal Aviation Act of 1958; 49 U.S.C. 1348, 1354, 1510, E.O. 10854 (24 F.R. 9565))

Issued in Washington, D.C., on May 11, 1965.

N. E. HALABY,
Administrator.

[F.R. Doc. 65-5176; Filed, May 17, 1965; 8:45 a.m.]

SUBCHAPTER F—AIR TRAFFIC AND GENERAL OPERATING RULES

[Reg. Docket No. 6599; Amdt. 426]

PART 97—STANDARD INSTRUMENT APPROACH PROCEDURES

Miscellaneous Amendments

The amendments to the standard instrument approach procedures contained herein are adopted to become effective when indicated in order to promote safety. The amended procedures supersede the existing procedures of the same classification now in effect for the airports specified therein. For the convenience of the users, the complete procedure is republished in this amendment indicating the changes to the existing procedures.

As a situation exists which demands immediate action in the interests of safety in air commerce, I find that compliance with the notice and procedure provisions of the Administrative Procedure Act is impracticable and that good cause exists for making this amendment effective within less than 30 days from publication.

In view of the foregoing and pursuant to the authority delegated to me by the Administrator (24 F.R. 5662), Part 97 (14 CFR Part 97) is amended as follows:

1. By amending the following automatic direction finding procedures prescribed in § 97.11(b) to read:

ADF STANDARD INSTRUMENT APPROACH PROCEDURE

Hearings, headings, courses and radials are magnetic. Elevations and altitudes are in feet MSL. Ceilings are in feet above airport elevation. Distances are in statute miles unless otherwise indicated, except visibilities which are in statute miles.

If an instrument approach procedure of the above type is conducted at the below named airport, it shall be in accordance with the following instrument approach procedure, unless an approach is conducted in accordance with a different procedure for such airport authorized by the Administrator of the Federal Aviation Agency. Initial approach shall be made over specified routes. Minimum altitudes shall correspond with those established for en route operation in the particular area or as set forth below.

Transition				Ceiling and visibility minimums			
From—	To—	Course and distance	Minimum altitude (feet)	Condition	2-engine or less		More than 2-engine, more than 65 knots
					65 knots or less	More than 65 knots	
				T-dn.....	300-1	300-1	300-1
				C-dn.....	700-1	700-1	700-1
				A-dn.....	800-2	800-2	800-2
				If Terry fan marker received, minimums become:			
				C-dn.....	600-1	600-1	600-1

Radial transitions and vectoring authorized in accordance with approved patterns.

No procedure turn. Radar control will not descend aircraft below 3000' until passing Wade Int, Inbnd.

Minimum altitude over Margaret Int on final approach crs, 2600'; over Terry FM, 1500'.

Crs and distance, Wade Int to RBN, 095°—7.6 miles; Margaret Int to RBN, 095°—6.7 miles; breakoff point to runway, 078°—0.4 mile.

Crs and distance, Terry FM to airport, 095°—1.5 miles; to RBN, 2.1 miles.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 0.6 mile after passing FTY RBN, make left turn, climb to 3000' and return to Wade Int via 275° bearing from FTY RBN, or follow radar vector after being reidentified.

NOTE: ATL approach control radar must be in operation for vector to final approach crs. Night air carrier operations not authorized.

CAUTION: Water tank, 1218°—1.8 miles WNW and tower, 1375°—2.7 miles NW of airport.

MSA within 25 miles of facility: 000°—150°—2900'; 180°—270°—3700'; 270°—360°—3800'.

City, Atlanta; State, Ga.; Airport name, Fulton County; Elev., 834'; Fac. Class., MH; Ident., FTY; Procedure No. 1, Amdt. 1; Eff. date, 22 May 65; Sup. Amdt. No. Orig.; Dated, 2 Jan. 65

Erie VOR.....	ERI RBN.....	061°—10.8 miles.....	2800	T-dn.....	300-1	300-1	300-1
Harborcreek Int.....	ERI RBN.....	Direct.....	2800	C-dn.....	500-1	500-1	500-1
Hammitt Int.....	ERI RBN.....	Direct.....	2900	S-dn-24.....	500-1	500-1	500-1
Wattsburg Int.....	ERI RBN.....	Direct.....	3300	A-dn.....	800-2	800-2	800-2
Lawrence Int.....	ERI RBN.....	Direct.....	3400				

Procedure turn N side of crs, 059° Outbnd, 239° Inbnd, 2800' within 10 miles.

Minimum altitude over facility on final approach crs, 1800'.

Crs and distance, facility to airport, 239°—3.6 miles.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 3.6 miles after passing ERI RBN, make a right-climbing turn to 3000' and return to ERI RBN. Hold NE on 009° bearing of Erie RBN, 1-minute right turns, 239° Inbnd.

Air Carrier Note: 300-1 required for takeoff on all runways except 6-24. Sliding scale authorized Runways 6-24.

MSA within 25 miles of facility: 060°—150°—2900'; 180°—240°—3100'; 240°—330°—2000'; 330°—090°—1600'.

City, Erie; State, Pa.; Airport name, Port Erie; Elev., 732'; Fac. Class., MHW; Ident., ERI; Procedure No. 1, Amdt. 5; Eff. Date, 22 May 65; Sup. Amdt. No. 4; Dated, 12 Oct. 63

Erie VOR.....	ER LOM (final).....	Direct.....	2000	T-dn.....	300-1	200-1	200-1
				C-dn.....	500-1	200-1	200-1
				S-dn-6.....	500-1	200-1	200-1
				A-dn.....	800-2	800-2	800-2

Procedure turn S side of crs, 239° Outbnd, 059° Inbnd, 2300' within 10 miles.

Minimum altitude over facility on final approach crs, 2000'.

Crs and distance, facility to airport, 059°—3.9 miles.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 3.9 miles after passing ER LOM, climb to 2000' and 059° heading, make left turn, proceed to ER LOM, hold SW, ER LOM, right turns, 1 minute, 059° Inbnd.

Air Carrier Note: 300-1 required for takeoff on all runways except 6-24. Sliding scale authorized Runways 6-24.

MSA within 25 miles of facility: 050°—140°—3100'; 140°—230°—2900'; 230°—320°—2000'; 320°—050°—1600'.

City, Erie; State, Pa.; Airport name, Port Erie; Elev., 732'; Fac. Class., LOM; Ident., ER; Procedure No. 2; Amdt. 1; Eff. date, 22 May 65; Sup. Amdt. No. Orig.; Dated, 29 Feb. 64

ADF STANDARD INSTRUMENT APPROACH PROCEDURE—Continued

Transition				Ceiling and visibility minimums			
From—	To—	Course and distance	Minimum altitude (feet)	Condition	2-engine or less		More than 2-engine, more than 65 knots
					65 knots or less	More than 65 knots	
FAT VOR	FAT RBN	Direct	2000	T-dn	300-1	300-1	NA
FAT LOM	FAT RBN	Direct	2000	C-dn	800-1	800-1	NA
				C-u	800-2	800-2	NA
				A-dn	NA	NA	NA

Radar vectoring authorized in accordance with approved patterns.

Procedure turn 8 side of crs, 215° Outbnd, 035° Inbnd, 2000' within 10 miles.

Minimum altitude over facility on final approach crs, 1100'.

Crs and distance, facility to airport, 033°—0.9 mile.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 0.6 mile of FAT RBN, climb to 2000' on crs 135° from FAT RBN within 15 miles.

MSA within 25 miles of facility: 000°-090°—4500'; 090°-180°—2100'; 180°-270°—1900'; 270°-360°—3000'.

City, Fresno; State, Calif.; Airport name, Fresno-Chandler Municipal; Elev., 283'; Fac. Class., H-SAB; Ident., FAT; Procedure No. 1, Amdt. 1; Eff. date, 22 May 65; Sup. Amdt. No. Orig.; Dated, 21 Dec. 63

GLS VOR	GLS RBN	Direct	1600	T-dn	300-1	300-1	200-1½
				C-dn	500-1	500-1	500-1½
				S-dn-13	400-1	400-1	400-1
				A-dn	800-2	800-2	800-2

Radar vectoring by Houston approach control may be used to position aircraft on final approach within 10 miles of Galveston RBN with elimination of procedure turn.

Procedure turn 8 side of crs, 308° Outbnd, 123° Inbnd, 1600' within 10 miles.

Minimum altitude over facility on final approach crs, 1100'.

Crs and distance, facility to airport, 123°—4.3 miles.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 4.3 miles after passing GLS RBN, turn right, climb to 1600' direct to GLS RBN.

CAUTION: 231' radio tower, 7000' NE of airport, 157' water tank ESE side of airport.

MSA within 25 miles of facility: 000°-270°—1400'; 270°-360°—2300'.

City, Galveston; State, Tex.; Airport name, Scholes Field; Elev., 7'; Fac. Class., BHH; Ident., GLS; Procedure No. 1, Amdt. 6; Eff. date, 22 May 65; Sup. Amdt. No. 5; Dated, 11 Apr. 64

BOU VOR	AAP MH	Direct	1800	T-dn	300-1	300-1	200-1½
Fairbanks Int.	AAP MH	Direct	1800	C-dn	600-1	600-1	600-1
Arctic Int.	AAP MH	Direct	2500	A-dn	NA	NA	NA
Rosenberg Int.	AAP MH	Direct	1600				
Cypress Int.	AAP MH	Direct	1700				
BOU RBN	AAP MH	Direct	1800				

Radar vectoring authorized in accordance with approved patterns.

Procedure turn W side of crs, 344° Outbnd, 164° Inbnd, 1600' within 10 miles.

Minimum altitude over facility on final approach crs, 800'.

Crs and distance, facility to airport, 163°—0.4 mile.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 0.4 mile after passing AAP RBN, turn right, climb to 2000' on crs of 270° from the AAP RBN within 10 miles.

Notes: No weather service. Unicom 24 hours, 122.8 and 122.1. Procedure not authorized for air carrier. Runways 50' wide. Private facility approved for public use.

MSA within 25 miles of facility: 000°-090°—1800'; 090°-180°—2600'; 180°-270°—1500'; 270°-360°—1600'.

City, Houston; State, Tex.; Airport name, Andrae Airpark; Elev., 80'; Fac. Class., MHW; Ident., AAP; Procedure No. 1, Amdt. 6; Eff. date, 22 May 65; Sup. Amdt. No. 5; Dated, 27 June 64

Johnson City Int.	JCY RBN	Direct	3100	T-dn	300-1	300-1	200-1½
Fredericksburg Int.	JCY RBN	Direct	3100	C-dn	500-1	600-1	600-1½
				A-dn	NA	NA	NA

Procedure turn E side of crs, 166° Outbnd, 346° Inbnd, 3000' within 10 miles.

Minimum altitude over facility on final approach crs, 2500'.

Crs and distance, facility to airport, 346°—2.0 miles.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 2.0 miles after passing JCY RBN, turn right, climb to 4000' on 350° crs from JCY RBN. Then proceed to SAT VOR R-353 via the Austin, Tex., VOR R-260, thence to Johnson City Int via SAT VOR R-353, maintain 4000'.

Notes: (1) Air carrier use not authorized. (2) No weather at airport. (3) Austin altimeter setting will be used for this approach. (4) REIL serves Runway 35.

CAUTION: Procedure not wholly within controlled airspace.

MSA within 25 miles of facility: 000°-090°—3200'; 090°-180°—2900'; 180°-270°—3300'; 270°-360°—3300'.

City, Johnson City; State, Tex.; Airport name, Johnson City; Elev., 1512'; Fac. Class., MH; Ident., JCY; Procedure No. 1, Amdt. 5; Eff. date, 22 May 65; Sup. Amdt. No. 4; Dated, 26 Dec. 64

Leroy Int.	AZ LOM	Direct	2800	T-dn	300-1	300-1	200-1½
AZO VOR	AZ LOM	Direct	2800	C-dn	400-1	500-1	500-1½
BTL VOR	AZ LOM	Direct	2800	S-dn-35	400-1	400-1	400-1
Centerville Int.	Barton Int.	Via AZO	2800	A-dn	800-2	800-2	800-2
		R-192 and BTL R-218					
Barton Int.	AZ LOM (final)	Direct	2500				
Lawton Int.	AZ LOM	Direct	2800				
Cooper Int.	AZ LOM	Direct	2800				
Hickory Int.	AZ VOR	Direct	2800				
GRR VOR	AZ LOM	Direct	2900				

Procedure turn E side of crs, 172° Outbnd, 352° Inbnd, 2800' within 10 miles.

Minimum altitude over facility on final approach crs, 2500'.

Crs and distance, facility to airport, 352°—5.8 miles.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 5.8 miles after passing AZ LOM, climb to 3000', proceed to Cooper Int via AZO VOR R-321, or when directed by ATC, climb to 2800', turn left, and return to AZ LOM.

CAUTION: This procedure authorized only when tower operates.

MSA within 25 miles of facility: 000°-360°—2400'.

City, Kalamazoo; State, Mich.; Airport name, Kalamazoo Municipal; Elev., 874'; Fac. Class., LOM; Ident., AZ; Procedure No. 1, Amdt. 5; Eff. date, 22 May 65; Sup. Amdt. No. 4; Dated, 25 Jan. 64

PROCEDURE CANCELLED, EFFECTIVE 15 MAY 1965.

City, Kwajalein Island, Marshall Islands; Airport name, PMFR Kwajalein; Elev., 7'; Fac. Class., H; Ident., NDJ; Procedure No. 1, Amdt. Orig.; Eff. date, 5 May 62 No. 95—Pt. I—2

ADF STANDARD INSTRUMENT APPROACH PROCEDURE—Continued

Transition				Ceiling and visibility minimums			
From—	To—	Course and distance	Minimum altitude (feet)	Condition	2-engine or less		More than 2-engine, more than 65 knots
					65 knots or less	More than 65 knots	
SUX VOR	LOM	Direct	2600	T-dn	300-1	300-1	*20-1/2
				C-dn	500-1	600-1	600-1/2
				S-dn-31	400-1	400-1	400-1
				A-dn	800-2	800-2	800-2

Procedure turn E side of crs, 127° Outbnd, 307° Inbnd, 2600' within 10 miles.

Minimum altitude over facility on final approach crs, 2600'.

Crs and distance, facility to airport, 307°—5.3 miles.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 5.3 miles after passing LOM, climb to 2600' on 307° magnetic bearing from LOM within 15 miles or, when directed by ATC, turn left and climb to 3700' on R-266 of SUX VOR within 20 miles.

NOTE: For aircraft departing northeastbound when weather is below 2400-2, flight below 3900' beyond 7 miles from airport is prohibited between the 347° and 025° radials of the SUX VORTAC due to a 3369' tower, 12 miles NE of the airport.

*300-1 required for all takeoffs on Runway 4, due to 1318' terrain, 1.4 miles ENE of airport.

MSA within 25 miles of facility: 000°-090°—4400'; 090°-270°—2700'; 270°-360°—3900'.

City, Sioux City; State, Iowa; Airport name, Sioux City Municipal; Elev., 1097'; Fac. Class., LOM; Ident., SU; Procedure No. 1, Amdt. 11; Eff. date, 22 May 65; Sup. Amdt. No. 10; Dated, 10 Apr. 65

SUX VOR	JKN RBN	Direct	2600	T-dn	300-1	300-1	*20-1/2
Jefferson Int.	JKN RBN	Direct	2600	C-dn	500-1	600-1	600-1/2
Hubbard Int.	JKN RBN	Direct	2800	S-dn-13	600-1	600-1	600-1
				A-dn	800-2	800-2	800-2

Procedure turn W side of crs, 307° Outbnd, 127° Inbnd, 2600' within 10 miles.

Minimum altitude over facility on final approach crs, 2600'.

Crs and distance, facility to airport, 127°—4.1 miles.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 4.1 miles after passing JKN RBN, climb to 2800' on 127° magnetic bearing from JKN RBN within 20 miles.

NOTE: For aircraft departing northeastbound when weather is below 2400-2, flight below 3900' beyond 7 miles from airport is prohibited between the 347° and 025° radials of the SUX VORTAC due to a 3369' tower, 12 miles NE of the airport.

*300-1 required for all takeoffs on Runway 4, due to 1318' terrain, 1.4 miles ENE of airport.

MSA within 25 miles of facility: 000°-090°—4400'; 090°-360°—2700'.

City, Sioux City; State, Iowa; Airport name, Sioux City Municipal; Elev., 1097'; Fac. Class., MHW; Ident., JKN; Procedure No. 2, Amdt. 5; Eff. date, 22 May 65; Sup. Amdt. No. 4; Dated, 10 Apr. 65

McClure Int.	LOM	Direct	2200	T-dn	300-1	300-1	200-1/2
Waterville VOR	LOM	Direct	2200	C-dn	500-1	500-1	500-1/2
Harbor View Int.	LOM	Direct	2200	S-dn-7	500-1	500-1	500-1
Gerald Int.	LOM	Direct	2300	A-dn	800-2	800-2	800-2

Radar vectoring authorized in accordance with approved patterns.

Procedure turn S side of crs, 249° Outbnd, 069° Inbnd, 2100' within 10 miles.

Minimum altitude over facility on final approach crs, 1500'.

Crs and distance, facility to airport, 069°—4.7 miles.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 4.7 miles after passing LOM, make right-climbing turn to 2200', proceed to Waterville VOR, hold SE Waterville VOR on R-140, right turns, 1 minute, 320° Inbnd, or when directed by ATC, within 4.7 miles after passing LOM, make climbing left turn to 2100', proceed to Toledo LOM, hold SW Toledo LOM, right turns, 1 minute, 069° Inbnd.

CAUTION: Tower 869'—1 1/4 miles S of LMM.

MSA within 25 miles of facility: 000°-090°—2600'; 090°-180°—2000'; 180°-270°—2100'; 270°-360°—2900'.

City, Toledo; State, Ohio; Airport name, Toledo Express; Elev., 684'; Fac. Class., LOM; Ident., TO; Procedure No. 1, Amdt. 9; Eff. date, 22 May 65; Sup. Amdt. No. 8; Dated, 2 Jan. 65

2. By amending the following very high frequency omnirange (VOR) procedures prescribed in § 97.11(c) to read:

VOR STANDARD INSTRUMENT APPROACH PROCEDURE

Bearings, headings, courses and radials are magnetic. Elevations and altitudes are in feet MSL. Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles.

If an instrument approach procedure of the above type is conducted at the below named airport, it shall be in accordance with the following instrument approach procedure, unless an approach is conducted in accordance with a different procedure for such airport authorized by the Administrator of the Federal Aviation Agency. Initial approaches shall be made over specified routes. Minimum altitudes shall correspond with those established for en route operation in the particular area or as set forth below.

Transition				Ceiling and visibility minimums			
From—	To—	Course and distance	Minimum altitude (feet)	Condition	2-engine or less		More than 2-engine, more than 65 knots
					65 knots or less	More than 65 knots	
AEX VOR	ESF VOR	Direct	1700	T-dn	300-1	300-1	200-1/2
AEX RBN	ESF VOR	Direct	1700	C-dn	400-1	500-1	500-1/2
Boyce Int.	ESF VOR	Direct	1700	S-dn-14	400-1	400-1	400-1
Larto Int.	ESF VOR	Direct	2000	A-dn	800-2	800-2	800-2
V-114, V-114N	ESF VOR	ESF-148	1700				
Van Int.	ESF VOR (final)	Direct	1000				

Radar terminal area transition altitude: 1600' within 20 miles. Radar control must provide 1000' clearance when within 3 miles of radio tower, 1769'—16 miles S of radar site at England AFB.

Procedure turn E side of crs, 331° Outbnd, 151° Inbnd, 1700' within 10 miles.

Minimum altitude over facility on final approach crs, 1000'.

Crs and distance, facility to airport, 151°—3.0 miles.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 3.0 miles after passing ESF VOR, climb to 1700' on ESF VOR R-151, turn left and return to ESF VOR.

MSA within 25 miles of facility: 000°-090°—1400'; 090°-180°—1400'; 180°-270°—1700'; 270°-360°—1500'.

City, Alexandria; State, La.; Airport name, Esler Field; Elev., 108'; Fac. Class., L-VOR; Ident., ESF; Procedure No. 1, Amdt. 4; Eff. date, 22 May 65; Sup. Amdt. No. 3; Dated, 26 Sept. 64

VOR STANDARD INSTRUMENT APPROACH PROCEDURE—Continued

Transition				Ceiling and visibility minimums			
From—	To—	Course and distance	Minimum altitude (feet)	Condition	2-engine or less		More than 2-engine, more than 65 knots
					65 knots or less	More than 65 knots	
AEX VOR	ESF VOR	Direct	1700	T-dn	300-1	300-1	300-1½
AEX RBN	ESF VOR	Direct	1700	C-dn	400-1	500-1	500-1½
Boys Int.	ESF VOR	Direct	1700	S-dn-32	400-1	400-1	400-1
Lerts Int.	ESF VOR	Direct	2000	A-dn	800-2	800-2	800-2
V-14	Marks Int.	AEX 119/ESF-148	1700				
Marks Int.	Cox Int (final)	Direct	1300				

Radar vectoring authorized in accordance with approved patterns.

Procedure turn E side of crs, 148° Outbnd, 328° Inbnd, 1600' within 10 miles of Cox Int. Beyond 10 miles not authorized.

Minimum altitude over Cox Int on final approach crs, 1300'.

Crs and distance, Cox Int to airport, 328°—4.0 miles.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 4.0 miles after passing *Cox Int, climb to 2000' and proceed to ESF VOR. Hold NW on ESF R-331 (RT).

MSA within 25 miles of the facility: 000°-090°—1400'; 090°-180°—1400'; 180°-270°—1700'; 270°-360°—1500'.

City, Alexandria; State, La.; Airport name, Esler Field; Elev., 108'; Fac. Class., L-BVOR; Ident., ESF; Procedure No. 2, Amdt. 2; Eff. date, 22 May 65; Sup. Amdt. No. 1; Dated, 7 Nov. 64

				T-d	300-1	300-1	300-1
				C-d	800-2	800-2	800-2
				A-d	NA	NA	NA

Procedure turn S side of crs, 274° Outbnd, 094° Inbnd, 2600' within 10 miles. Beyond 10 miles not authorized.

Minimum altitude over facility on final approach crs, 2100'.

Crs and distance, facility to airport, 094°—6 miles.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 6.0 miles after passing STW VOR, make a left-climbing turn to 2600' and return to STW VOR. Hold W, 1-minute right turns, 094° Inbnd.

NOTE: UNICOM available on 122.8.

MSA within 25 miles of the facility: 000°-090°—3100'; 090°-180°—2000'; 180°-270°—3100'; 270°-360°—3200'.

City, Andover; State, N.J.; Airport name, Aerodex-Andover; Elev., 383'; Fac. Class., LBVORTAC; Ident., STW; Procedure No. 1, Amdt. 2; Eff. date, 22 May 65; Sup. Amdt. No. 1; Dated, 11 July 64

				T-dn	300-1	300-1	300-1½
				C-dn	500-1	500-1	500-1½
				S-dn-6	500-1	500-1	500-1
				A-dn	800-2	800-2	800-2

Procedure turn S side crs, 230° Outbnd, 059° Inbnd, 2300' within 10 miles.

Minimum altitude over facility on final approach crs, 1900'.

Crs and distance, facility to airport, 059°—6.0 miles.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 6.0 miles after passing ERI VOR, climb to 3000' on crs 059° from ERI VOR within 10 miles, return to ERI VOR, hold SW, 1-minute right turns, 059° Inbnd.

AIR CARRIER NOTE: 300-1 required for takeoff on all Runways except 6-24. Sliding scale authorized Runways 6-24.

MSA within 25 miles of the facility: 080°-140°—3100'; 140°-230°—2900'; 230°-320°—2300'; 320°-050°—1600'.

City, Erie; State, Pa.; Airport name, Port Erie; Elev., 732'; Fac. Class., BVORTAC; Ident., ERI; Procedure No. 1, Amdt. 5; Eff. date, 22 May 65; Sup. Amdt. No. 4; Dated, 6 July 63

Berenda Int.	FAT VOR (final)	Direct	1900	T-dn	300-1	300-1	NA
				C-d	900-1	900-1	NA
				C-n	900-2	900-2	NA
				A-dn	NA	NA	NA
				If aircraft equipped to receive DME and the 6-mile DME Fix R-108 received, the following minimums apply:			
				C-d	700-1	700-1	NA
				C-n	700-2	700-2	NA

Radar vectoring authorized in accordance with approved patterns.

Procedure turn W side of crs, 313° Outbnd, 133° Inbnd, 2300' within 10 miles.

Minimum altitude over facility on final approach crs, 1900'.

Crs and distance, facility to airport, 108°—9.2 miles.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 9.2 miles after passing FAT VOR, turn right, proceed direct to FAT VOR, climbing to 2300' on R-305 within 20 miles.

MSA within 25 miles of the facility: 360°-090°—7500'; 090°-180°—5000'; 180°-270°—1900'; 270°-360°—6000'.

City, Fresno; State, Calif.; Airport name, Fresno-Chandler Municipal; Elev., 283'; Fac. Class., BVORTAC; Ident., FAT; Procedure No. 1, Amdt. 3; Eff. date, 22 May 65; Sup. Amdt. No. 2; Dated, 12 Sept. 64

Galveston RBN	GLS VOR	Direct	2200	T-dn	300-1	300-1	300-1½
				C-dn	500-1	500-1	500-1½
				S-dn-13	400-1	400-1	400-1
				A-dn	800-2	800-2	800-2

Radar vectoring by Houston approach control may be used to position aircraft on final approach within 10 miles NW of Galveston VOR with elimination of procedure turn.

Procedure turn S side crs, 291° Outbnd, 111° Inbnd, 2200' within 10 miles.

Minimum altitude over facility on final approach crs, 1100'; minimum altitude abeam GLS RBN on final approach crs, 600'.

Crs and distance, facility to airport, 111°—7.5 miles; abeam GLS RBN, 111°—4.3 miles.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 7.5 miles after passing GLS VOR, turn right, climb to 1300' direct to GLS VOR.

CAUTION: 231' radio tower, 7000' NE of airport. 157' water tank, ESE of airport.

*Descent below 600' not authorized until position abeam GLS RBN (021° bearing to GLS RBN) identified.

MSA within 25 miles of the facility: 000°-270°—1400'; 270°-360°—2300'.

City, Galveston; State, Tex.; Airport name, Scholes Field; Elev., 7'; Fac. Class., BVORTAC; Ident., GLS; Procedure No. 1, Amdt. 6; Eff. date, 22 May 65; Sup. Amdt. No. 8; Dated, 11 Apr. 64

VOR STANDARD INSTRUMENT APPROACH PROCEDURE—Continued

Transition				Ceiling and visibility minimums			
From—	To—	Course and distance	Minimum altitude (feet)	Condition	2-engine or less		More than 2-engines, more than 65 knots
					65 knots or less	More than 65 knots	
				T-dn.....	300-1	300-1	300-1
				C-dn.....	500-1	600-1	600-1
				A-dn.....	800-2	800-2	800-2

Procedure turn N side of crs, 118° Outbnd, 298° Inbnd, 2000' within 10 miles.
Minimum altitude over facility on final approach crs, 1700'.
Crs and distance, facility to airport, 298°—5.3 miles.
If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 5.3 miles after passing MSS VOR, make right-climbing turn to 2000'; return to Massena VOR. Hold SE of MSS VOR, 1-minute right turns, 298° Inbnd crs.
CAUTION: 598' tower, 2.0 miles SW of airport.
MSA within 25 miles of facility: 000°-090°—2000'; 090°-180°—3500'; 180°-270°—3000'; 270°-360°—2000'.
City, Massena; State, N. Y.; Airport name, Richards Field; Elev., 215'; Fac. Class., H-BVORTAC; Ident., MSS; Procedure No. 1, Amdt. 7; Eff. date, 22 May 65; Sup. Amdt. No. 6; Dated, 14 Mar. 64

				T-d.....	800-1	800-1	800-1
				T-n.....	NA	NA	NA
				C-d.....	1400-2	1400-2	1400-2
				C-n.....	NA	NA	NA
				A-dn*.....	NA	NA	NA

Procedure turn N side of crs, 112° Outbnd, 292° Inbnd, 3500' within 10 miles.
Minimum altitude over facility on final approach crs, 3500'.
Crs and distance, facility to airport, 292°—9.9 miles.
If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 9.9 miles after passing GDM VOR, make left-climbing turn to 3500' direct to GDM VOR. Hold E of GDM VOR, 1-minute, right turns, 292° Inbnd.
*Alternate weather minimums of 3000-3 is authorized only for those who have an approved arrangement for weather service at the airport.
MSA within 25 miles of facility: 000°-090°—4500'; 090°-180°—3500'; 180°-270°—2500'; 270°-360°—3500'.
City, Orange; State, Mass; Airport name, Orange Municipal; Elev., 555'; Fac. Class., BVORTAC; Ident., GDM; Procedure No. 1, Amdt. 1; Eff. date, 22 May 65; Sup. Amdt. No. Orig.; Dated, 8 Aug. 64

				T-dn.....	300-1	300-1	*300-1
				C-dn.....	500-1	600-1	600-1
				S-dn-31.....	400-1	400-1	400-1
				A-dn.....	800-2	800-2	800-2

Procedure turn E side of crs, 132° Outbnd, 312° Inbnd, 2400' within 10 miles.
Minimum altitude over facility on final approach crs, 2100'.
Crs and distance, facility to airport, 312°—3.6 miles.
If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 3.6 miles after passing SUX VOR, climb to 3000' on R-331 within 20 miles.
NOTES: (1) When authorized by ATC, DME may be used to position aircraft for straight-in approach at 3000' between R-090 clockwise to R-250 via 10-mile DME arc with the elimination of procedure turn. (2) For aircraft departing northeastbound when weather is below 2400-2, flight below 3900' beyond 7 miles from airport is prohibited between the 347° and 025° radials of the SUX VORTAC due to a 3360' tower, 12 miles northeast of the airport.
*300-1 required for all takeoffs on Runway 4, due to 1315' terrain 1.4 miles ENE of airport.
MSA within 25 miles of facility: 000°-090°—4400'; 090°-270°—2700'; 270°-360°—3700'.
City, Sioux City; State, Iowa; Airport name, Sioux City Municipal; Elev., 1097'; Fac. Class., BVORTAC; Ident., SUX; Procedure No. 1, Amdt. 11; Eff. date, 22 May 65; Sup. Amdt. No. 10; Dated, 10 Apr. 65

Dinuba Int.....	VIS VOR.....	Direct.....	2000	T-dn.....	300-1	300-1	300-1
Laton Int.....	VIS VOR.....	Direct.....	2000	C-dn.....	400-1	500-1	500-1
Pholey Int.....	VIS VOR.....	Direct.....	2000	S-dn-12.....	400-1	400-1	400-1
Exeter Int.....	VIS VOR.....	Direct.....	2000	A-dn*.....	NA	NA	NA

Radial vectoring authorized in accordance with approved patterns.
Procedure turn N side of crs, 287° Outbnd, 107° Inbnd, 2000' within 10 miles.
Minimum altitude over facility on final approach crs, 1300'.
Crs and distance, facility to airport, 107°—4.7 miles.
If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 4.7 miles after passing VIS VOR, climb to 2300' on VIS VOR R-107 within 15 miles.
NOTE: Final approach from holding pattern at VIS VOR not authorized. Procedure turn required.
*Control zone effective 0700 to 2100 local time daily. 700' minimums required during periods control zone not in effect.
*Alternate minimums of 800-2 authorized for air carriers with weather reporting service available at the airport.
MSA within 25 miles of facility: 000°-090°—5200'; 090°-180°—3400'; 180°-270°—2000'; 270°-360°—4100'.
City, Visalia; State, Calif.; Airport name, Visalia Municipal; Elev., 292'; Fac. Class., TVOR; Ident., VIS; Procedure No. 1, Amdt. 1; Eff. date, 22 May 65; Sup. Amdt. No. Orig.; Dated, 6 Feb. 65

GSH VOR.....	Green Int.....	Direct.....	2300	T-dn.....	300-1	300-1	300-1
OXI VOR.....	Green Int.....	Direct.....	2300	C-dn.....	700-1	700-1	700-1
MOI VOR.....	Green Int.....	Direct.....	2300	A-dn.....	NA	NA	NA
OLK VOR.....	Canoe Int.....	Direct.....	2300				
Green Int.....	Canoe Int (final).....	Direct.....	2300				

Procedure turn S side of crs, 278° Outbnd, 098° Inbnd, 2300' within 10 miles of Canoe Int.
Minimum altitude over Canoe Int on final approach crs, 2300'.
Crs and distance, Canoe Int to airport, 098°—5.2 miles.
If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 5.2 miles after passing Canoe Int, make left turn, climb to 2300', return to Canoe Int.
NOTES: (1) No weather reporting service, obtain SBN and FWA weather and altimeter settings before making IFR approach. (2) Radar vectoring to final approach crs to eliminate procedure turn authorized by Chicago Center radar. Minimum radar vectoring altitude within 15 miles of Canoe Int, 2300'; from 15-20 miles, 2900'. (3) Dual VOR required for IFR approach.
MSA within 25 miles of facility: 090°-180°—2700'; 180°-090°—2300'.
City, Warsaw; State, Ind.; Airport name, Warsaw Municipal; Elev., 840'; Fac. Class., L-BVOR; Ident., OLK; Procedure No. 1, Amdt. Orig.; Eff. date, 22 May 65

3. By amending the following terminal very high frequency omnirange (TerVOR) procedures prescribed in § 97.13 to read:

TERMINAL VOR STANDARD INSTRUMENT APPROACH PROCEDURE

Bearings, headings, courses and radials are magnetic. Elevations and altitudes are in feet MSL. Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles.

If an instrument approach procedure of the above type is conducted at the below named airport, it shall be in accordance with the following instrument approach procedure, unless an approach is conducted in accordance with a different procedure for such airport authorized by the Administrator of the Federal Aviation Agency. Initial approaches shall be made over specified routes. Minimum altitudes shall correspond with those established for en route operation in the particular area or as set forth below.

Transition				Ceiling and visibility minimums			
From—	To—	Course and distance	Minimum altitude (feet)	Condition	2-engine or less		More than 2-engine, more than 65 knots
					65 knots or less	More than 65 knots	
				T-dn.....	300-1	300-1	200-1½
				C-dn.....	700-1	700-1	700-1½
				A-dn.....	800-2	800-2	800-2
				When Terry fan marker received minimums become:			
				C-dn.....	600-1	600-1	600-1½

Radar transitions and vectoring authorized in accordance with approved patterns.
No procedure turn. Radar control will not descend aircraft below 3000' until passing Wade Int Inbnd.
Minimum altitude over Margaret Int on final approach crs, 2600'; over Terry FM, 1500'.
Crs and distance, Wade Int to VOR, 095°—8.0 miles; Margaret Int to VOR, 095°—6.0 miles; breakoff point to Runway, 078°—0.4 mile.
Crs and distance, Terry fan marker to airport, 095°—1.5 miles; to VOR, 2.1 miles.
If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 0.6 mile after passing FTY VOR, make left turn, climb to 3000' and return to Wade Int via FTY R-275 or follow radar vector after being reidentified.
NOTES: (1) ATL approach control radar must be in operation for vector to final approach crs. (2) Night air carrier operations not authorized.
CAUTION: Water tank, 1218°—1.8 miles WNW of airport. Tower, 1375°—2.7 miles NW of airport.
MSA within 25 miles of facility: 000°—180°—4000'; 180°—270°—3700'; 270°—360°—3800'.

City, Atlanta; State, Ga.; Airport name, Fulton County; Elev., 834'; Fac. Class., L-BVOR; Ident., FTY; Procedure No. TerVOR (R-275), Amdt. 7; Eff. date, 22 May 65; Sup. Amdt. No. 6; Dated, 21 Nov. 64

Papil Int.....	Glencoe Int.....	Via ORK R-076 and ORD R-093.	2300	T-dn.....	300-1	300-1	200-1½
				C-dn.....	400-1	500-1	500-1½
				S-dn-22.....	400-1	400-1	400-1
				A-dn.....	800-2	800-2	800-2
Glencoe Int.....	Rand Int (final).....	Direct.....	1400				
ORK VOR.....	Glencoe Int.....	Direct.....	2000				
Niles Int.....	ORD VORTAC.....	Direct.....	2500				
Warren Int.....	ORD VORTAC.....	Direct.....	2500				
ORK VOR.....	ORD VORTAC.....	Direct.....	2500				

Radar transition to final approach crs, authorized. Aircraft will be released for final approach without procedure turn 3 miles from Rand Int.
Procedure turn N side of crs, 033° Outbnd, 213° Inbnd, 2500' within 10 miles of VORTAC.
Minimum altitude over Rand Int on final approach crs, 1400'.
Crs and distance, Rand Int to Runway 22, 213°—2.6 miles; Rand Int to VOR, 3.3 miles.
Crs and distance, breakoff point to approach end of Runway 22, 218°—0.27 mile.
If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 0.6 mile of ORD VOR, climb to 3500' and proceed to DPA VOR via ORD R-213 and DPA R-085, or as directed by ATC, climb to 1500' on ORD R-213, then make right-climbing turn to 2500' and proceed to Elgin Int ORD R-275.

NOTES: (1) Dual VOR or VOR and DME receivers or radar fix required in lieu of Rand Int. (2) Aircraft executing missed approach may after being reidentified be radar controlled.

CAUTION: Takeoffs on Runway 27 when weather is below 2000-3 will intercept ORD VOR R-250 and climb to 2000' before proceeding westbound. Takeoffs on Runway 21L when weather is below 2000-3 will intercept ORD VOR R-306 and climb to 2000' before proceeding westbound.

MSA within 25 miles of facility: 000°—090°—2000'; 090°—180°—2600'; 180°—270°—2600'; 270°—360°—2800'.

City, Chicago; State, Ill.; Airport name, O'Hare International; Elev., 667'; Fac. Class., L-BVORTAC; Ident., ORD; Procedure No. TerVOR-22, Amdt. 4; Eff. date, 22 May 65; Sup. Amdt. No. 3; Dated, 18 Jan. 64

MBS VOR.....	Mt Pleasant VOR.....	Direct.....	2300	T-dn.....	300-1	300-1	200-1½
				C-dn.....	600-1	600-1	600-1½
				A-dn.....	NA	NA	NA

Procedure turn, N side final approach crs, 095° Outbnd, 275° Inbnd, 2300' within 10 miles.
Minimum altitude over facility on final approach crs, 1400'.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 0.6 mile of VOR, make right-climbing turn to 2300' on Mt. Pleasant VOR R-360 and then return to the VOR.

NOTES: (1) No weather available. (2) Private facility operated by the State of Michigan.

MSA within 25 miles of facility: 000°—090°—2100'; 090°—180°—2000'; 180°—270°—2400'; 270°—360°—2400'.

City, Mount Pleasant; State, Mich.; Airport name, Mount Pleasant; Elev., 755'; Fac. Class., T-BVOR; Ident., MOP; Procedure No. TerVOR-27, Amdt. Orig.; Eff. date, 22 May 65

Moneta Int.....	VOR.....	Direct.....	7500	T-dn.....	300-1	300-1	300-1
Sweetwater Int.....	VOR.....	Direct.....	9000	C-dn.....	600-1	600-1	600-1½
				S-dn.....	600-1	600-1	600-1
				A-dn.....	NA	NA	NA

Procedure turn S side of crs, 275° Outbnd, 095° Inbnd, 7000' within 10 miles.
Minimum altitude over facility on final approach crs, 6100'.

Facility on airport. Breakoff point to runway, 095°—0.5 mile.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 0.6 mile of RIW VOR, climb to 7500' on R-103 within 15 miles.

NOTE: Departure procedures not required.

*Alternate minimums of 800-2 authorized for air carrier with weather reporting service available at airport.

MSA within 25 miles of facility: 000°—090°—10,100'; 090°—180°—9400'; 180°—270°—13,100'; 270°—360°—10,300'.

City, Riverton; State, Wyo.; Airport name, Riverton Municipal; Elev., 5498'; Fac. Class., BVOR; Ident., RIW; Procedure No. TerVOR-10, Amdt. 2; Eff. date, 22 May 65; Sup. Amdt. No. 1; Dated, 1 Aug. 64

RULES AND REGULATIONS

TERMINAL VOR STANDARD INSTRUMENT APPROACH PROCEDURE—Continued

Transition				Ceiling and visibility minimums			
From—	To—	Course and distance	Minimum altitude (feet)	Condition	2-engine or less		More than 2-engine, more than 65 knots
					65 knots or less	More than 65 knots	
Moneta Int.	VOR	Direct	7500	T-dn	300-1	300-1	300-1
Sweetwater Int.	VOR	Direct	9000	C-dn	400-1	500-1	500-1 1/2
				S-dn	400-1	400-1	400-1
				A-dn*	NA	NA	NA

Procedure turn N side of crs, 103° Outbnd, 283° Inbnd, 7000' within 10 miles.

Minimum altitude over facility on final approach crs, 5900'.

Facility on airport; breakoff point to runway, 279°—0.5 mile.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 0.6 mile of RIW VOR, climb to 7500' on R-264 within 15 miles.

NOTE: Departure procedures not required.

*Alternate minimums of 800-2 authorized for air carriers with weather reporting service available at airport.

MSA within 25 miles of facility: 000°-090°—10,150'; 090°-180°—9450'; 180°-270°—13,100'; 270°-360°—10,300'.

City, Riverton; State, Wyo.; Airport name, Riverton Municipal; Elev., 5495'; Fac. Class., BVOR; Ident., RIW; Procedure No. TerVOR-28, Amdt. 2; Eff. date, 22 May 65; Sup. Amdt. No. 1; Dated, 1 Aug. 64

				T-dn	300-1	300-1	300-1 1/2
				C-dn	700-1	700-1	700-1 1/2
				A-dn	800-2	800-2	800-2
				If 5-mile Radar fix is received the following minimums apply:			
				C-dn	600-1	600-1	600-1 1/2

Radar transitions and vectoring authorized in accordance with approved patterns.

Procedure turn W side of crs, 635° Outbnd, 215° Inbnd, 2200' within 10 miles.

Minimum altitude over facility on final approach crs, 1300'; if 5-mile Radar Fix received, 1200'.

Facility on airport; breakoff point to runway, 229°—0.8 mile.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 0.6 mile of Rochester VOR, make right-climbing turn to 3000', intercept R-298 of Rochester VOR, proceed to Spencerport Int. Hold W, 1-minute left turns, 118° Inbnd.

CAUTION: Tower, 890'—2.3 miles north of airport. Tower, 946'—2.5 miles SW of airport.

AIR CARRIER NOTE: Takeoff on Runway 12 and landing on Runway 30 not authorized.

MSA within 25 miles of facility: 000°-090°—2100'; 090°-180°—3800'; 180°-270°—3100'; 270°-360°—2000'.

City, Rochester; State, N.Y.; Airport name, Rochester-Monroe County; Elev., 590'; Fac. Class., BVOR; Ident., ROC; Procedure No. TerVOR-22, Amdt. 1; Eff. date, 22 May 65; Sup. Amdt. No. Orig.; Dated, 13 Mar. 65

4. By amending the following very high frequency omnirange-distance measuring equipment (VOR/DME) procedures prescribed in § 97.15 to read:

VOR/DME STANDARD INSTRUMENT APPROACH PROCEDURE

Bearings, headings, courses and radials are magnetic. Elevations and altitudes are in feet MSL. Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles.

If an instrument approach procedure of the above type is conducted at the below named airport, it shall be in accordance with the following instrument approach procedure, unless an approach is conducted in accordance with a different procedure for such airport authorized by the Administrator of the Federal Aviation Agency. Initial approaches shall be made over specified routes. Minimum altitudes shall correspond with those established for en route operation in the particular area or as set forth below.

Transition				Ceiling and visibility minimums			
From—	To—	Course and distance	Minimum altitude (feet)	Condition	2-engine or less		More than 2-engine, more than 65 knots
					65 knots or less	More than 65 knots	
10-mile DME Fix R-017	5-mile DME Fix R-017	Direct	1500	T-dn	300-1	300-1	300-1 1/2
5-mile DME Fix R-017	Houston VOR (final)	Direct	500	C-dn	400-1	500-1	500-1 1/2
				S-dn-21**	400-1	400-1	400-1
				A-dn	800-2	800-2	800-2

Radar vectoring authorized in accordance with approved patterns.

Radar Fix may be used in lieu of DME Fix.

Procedure turn W side of crs, 017° Outbnd, 197° Inbnd, 1600' within 10 miles.

Minimum altitude over facility on final approach crs, 500'.

Crs and distance breakoff point to approach end Runway 21, 216°—0.7 mile.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 0.6 mile of HOU VOR, climb to 2500' on R-215 within 20 miles.

CAUTION: 1540' tower, approximately 12 miles SW of HOU VOR. 1235' tower, approximately 11 miles SSE of HOU VOR.

*Descent below 1500' not authorized until passing 5-mile DME Fix on final approach.

**400-3/4 authorized, except for 4-engine turbojet aircraft, with operative high-intensity runway lights.

MSA within 25 miles of facility: 000°-090°—1600'; 090°-180°—2300'; 180°-270°—2600'; 270°-360°—1800'.

City, Houston; State, Tex.; Airport name, William P. Hobby; Elev., 50'; Fac. Class., H-BVORTAC; Ident., HOU; Procedure No. VOR/DME-2, Amdt. 5; Eff. date, 22 May 65; Sup. Amdt. No. 4; Dated, 17 Apr. 65

20-mile DME Fix LCH R-265	20-mile DME Fix LCH R-252	Via 20-mile DME arc	1500	T-dn	300-1	300-1	300-1 1/2
20-mile DME Fix LCH R-249	20-mile DME Fix LCH R-252	Via 20-mile DME arc	1500	C-dn	400-1	500-1	500-1 1/2
				A-dn	800-2	800-2	800-2
20-mile DME Fix LCH R-252	11-mile DME Fix LCH R-252	Direct	1500				
11-mile DME Fix LCH R-252	8-mile DME Fix LCH R-252 (final)	Direct	600				

Procedure turn S side of crs, 252° Outbnd, 072° Inbnd, 1500' within 10 miles of 11-mile DME Fix.

Minimum altitude over 11-mile DME Fix on final approach crs, 1500'; over 8-mile DME Fix on final approach crs, 600'.

Crs and distance 11-mile DME Fix to airport 072°—4.7 miles; 8-mile DME Fix to airport 072°—1.7 miles.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished upon reaching 6.3-mile DME Fix, climb to 1500' direct to LCH VOR.

NOTE: VOR and DME equipment required for the execution of this procedure.

MSA within 25 miles of facility: 000°-360°—1500'.

City, Lake Charles; State, La.; Airport name, Lake Charles Municipal; Elev., 16'; Fac. Class., H-BVORTAC; Ident., LCH; Procedure No. 1, Amdt. Orig.; Eff. date, 22 May 65

VOR/DME STANDARD INSTRUMENT APPROACH PROCEDURE—Continued

Transition				Ceiling and visibility minimums			
From—	To—	Course and distance	Minimum altitude (feet)	Condition	2-engine or less		More than 2-engine, more than 65 knots
					65 knots or less	More than 65 knots	
SUX VORTAC	8.5-mile DME Fix R-311	Direct	2800	T-dn	300-1	300-1	300-1½
				C-dn	600-1	600-1	600-1½
				S-dn-13	600-1	600-1	600-1
				A-dn	800-2	800-2	800-2

Procedure turn W side of crs, 311° Outbnd, 131° Inbnd, 2000' between 8.5- and 18.5-mile DME Fix R-311.

Minimum altitude over 8.5-mile DME Fix R-311 on final approach crs, 2100'.

Crs and distance, 8.5-mile DME Fix R-311 to airport, 131°—3.4 miles.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished at 5.1-mile DME Fix R-311, climb to 2800' on R-131 within 10 miles of VOR.

Notes: (1) When authorized by ATC, DME may be used to position aircraft for straight-in approach at 3100' between R-260 clockwise to 350° via 18 miles DME arc with the elimination of procedure turn. (2) Final approach from holding pattern at 8.5-mile DME Fix R-311 not authorized. Procedure turn required. (3) For aircraft departing northeastbound when weather is below 2400-2, flight below 3900' beyond 7 miles from airport is prohibited between the 347° and 023° radials of the SUX VORTAC due to a 300' tower, 12 miles NE of the airport.

*300-1 required for all takeoffs on Runway 4, due to 1315' terrain 1.4 miles ENE of airport.

MRA within 25 miles of facility: 000°-090°—4400'; 090°-270°—2700'; 270°-360°—3700'.

City, Sioux City; State, Iowa; Airport name, Sioux City Municipal; Elev., 1097'; Fac. Class., BVORTAC; Ident., SUX; Procedure No., VOR/DME No. 2, Amdt. 4; Eff. date, 22 May 65; Sup. Amdt. No. 3; Dated, 10 Apr. 65.

5. By amending the following instrument landing system procedures prescribed in § 97.17 to read:

ILS STANDARD INSTRUMENT APPROACH PROCEDURE

Bearings, headings, courses and radials are magnetic. Elevations and altitudes are in feet MSL. Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles.

If an instrument approach procedure of the above type is conducted at the below named airport, it shall be in accordance with the following instrument approach procedure, unless an approach is conducted in accordance with a different procedure for such airport authorized by the Administrator of the Federal Aviation Agency. Initial approaches shall be made over specified routes. Minimum altitudes shall correspond with those established for en route operation in the particular area or as set forth below.

Transition				Ceiling and visibility minimums			
From—	To—	Course and distance	Minimum altitude (feet)	Condition	2-engine or less		More than 2-engine, more than 65 knots
					65 knots or less	More than 65 knots	
ABI VOR	University Int.	Direct	3300	T-dn	300-1	300-1	300-1½
Dym VOR	ABI LOM	Direct	3800	C-dn	400-1	400-1	500-1½
ABI LOM	University Int.	Direct	3300	S-dn-17°	400-1	400-1	400-1
Nagant Int.	Port Int.	Direct	3100	A-dn	800-2	800-2	800-2
Port Int.	University (final)	Direct	2600				

Radar vectoring authorized in accordance with approved patterns.

Procedure turn E side of crs, 350° Outbnd, 170° Inbnd, 3300' within 10 miles of University Int.

Minimum altitude over University Int on final approach crs, 2800'; over Port Int, 3000'.

Crs and distance, University Int to airport, 170°—3.5 miles.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 3.5 miles after passing University Int, climb to 3900' on S crs of ILS within 20 miles or, when directed by ATC, turn left and climb to 3900' on R-110 of ABI VOR within 20 miles.

Radar may be used to position aircraft over Port Int at 3100', with elimination of procedure turn.

Caution: Towers, 2032'—2.6 miles WNW; 2115'—6.2 miles NW; 2067'—6.8 miles NW.

*400-1½ authorized, except for 4-engine turbojet, with operative high-intensity runway lights.

City, Abilene; State, Tex.; Airport name, Abilene Municipal; Elev., 1778'; Fac. Class., ILS; Ident., I-ABI; Procedure No. ILS-17 (back crs), Amdt. 4; Eff. date, 22 May 65; Sup. Amdt. No. 3; Dated, 13 Mar. 65.

Wright Int.	AT LOM (final)	Direct	2400	T-dn	300-1	300-1	300-1½
				C-dn	NA	NA	NA
				S-dn-9L and 9R	200-1½	200-1½	200-1½
				A-dn	600-2	600-2	600-2

Procedure turn not authorized. Radar vectoring to final approach crs required. Standard radar separation will be provided throughout these approaches.

Minimum altitude at glide slope interception Inbnd, 9L—3200' at Wright Int (2500' when authorized by ATC); 9R—2500'.

Crs, AT LOM to Runway 9L and AL LOM to Runway 9R, 089°.

Altitude of glide slope and distance to approach end of runway at OM; 9L, 2234'—4.1 miles; 9R, 2500'—5.0 miles; at MM, 9L, 1226'—0.5 mile; 9R, 1226'—0.6 mile.

When advised by the controller, or if visual contact not established upon descent to authorized landing minimums, or if landing not accomplished: Runway 9L—climb to 300' proceed to Tucker Int via ATL VOR R-033. Runway 9R—make climbing right turn to 3000' and proceed direct to MDU VOR.

Aircraft executing missed approaches may, after being reidentified, be radar controlled.

Notes: (1) When advised by ATC, pilot shall monitor both control frequency and localizer voice continuously during the remainder of the approach.

City, Atlanta; State, Ga.; Airport name, Atlanta; Elev., 1024'; Fac. Class., ILS I-ATL; Ident., I-ALR; Procedure No. ILS-9L and 9R, Amdt. Orig.; Eff. date, 22 May 65.

BIL VOR	LOM	Direct	5300	T-dn	300-1	300-1	300-1½
BIL RBL	LOM	Direct	5300	C-dn	500-1	500-1	500-1½
Muskegon Int.	LOM	Direct	6000	S-dn-90°	200-1½	200-1½	200-1½
Rapide DME Fix	LOM	Direct	5300	A-dn	600-2	600-2	600-2
Rapide Int.	LOM	Direct via R-284	5300				
15-mile DME Fix R-284 BIL VOR	W crs ILS (final)	BIL VOR	5000				

Procedure turn S side of crs, 275° Outbnd, 095° Inbnd, 5300' within 10 miles.

Minimum altitude at glide slope interception Inbnd, 5000'.

Altitude of glide slope and distance to approach end of runway at OM 4894'—4.0 miles; at MM 3815'—0.6 mile.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished, climb to 5300' on E crs of the ILS within 15 miles or, when directed by ATC, climb to 5300' on R-053 BIL VOR within 20 miles, or climb to 5300' on R-114 BIL VOR within 20 miles.

Notes: (1) Final approach from holding pattern at LOM not authorized. Procedure turn required. (2) When weather is below 600-2 and aircraft is southeastbound, flight below 4700' is prohibited SE of airport between BIL VOR radials 080° CW to 110° inclusive to 4249' tower, 3 miles SE of airport.

*Takeoff below 300-1 prohibited on all Runways except 9-27.

*400-1 required when glide slope not utilized.

*400-1½ authorized, except for 4-engine turbojet aircraft, with operative high-intensity runway lights.

*400-1½ authorized, except for 4-engine turbojet aircraft, with operative ALS.

City, Billings; State, Mont.; Airport name, Logan Field; Elev., 3609'; Fac. Class., ILS; Ident., I-BIL; Procedure No. ILS-9, Amdt. 12; Eff. date, 22 May 65; Sup. Amdt. No. 11; Dated, 24 Apr. 65.

ILS STANDARD INSTRUMENT APPROACH PROCEDURE—Continued

Transition				Ceiling and visibility minimums			
From—	To—	Course and distance	Minimum altitude (feet)	Condition	2-engine or less		More than 2-engine, more than 65 knots
					65 knots or less	More than 65 knots	
Erie VOR.....	LOM (final).....	Direct.....	2000	T-dn..... C-dn..... S-dn-6*..... A-dn.....	300-1 500-1 300-1/2 600-2	300-1 500-1 300-1/2 600-2	200-1/2 300-1/2 300-1/2 600-2

Procedure turn S side SW crs, 239° Outbnd, 059° Inbnd, 2300' within 10 miles.

Minimum altitude at glide slope interception Inbnd, 2000'.

Altitude of glide slope and distance to approach end of runway at OM, 1950'—3.9 miles; at MM, 1032'—0.5 mile.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished climb to 2300' on 059° heading within 10 miles, make left turn and return to LOM. Hold SW right turns, 059° Inbnd.

AIR CARRIER NOTE: 300-1 required for takeoff on all Runways except 6-24. Sliding scale authorized Runways 6-24.

*400-1 required when glide slope not utilized; 400-1/2 authorized, except for 4-engine turbojet aircraft, with operative high-intensity runway lights; 400-1/4 authorized, except for 4-engine turbojet aircraft, with operative ALS.

City, Erie, Pa.; Airport name, Port Erie; Elev., 732'; Fac. Class., ILS; Ident., I-ERI; Procedure No. ILS-6, Amdt. 4; Eff. date, 22 May 65; Sup. Amdt. No. 3; Dated, 16 Nov. 63

Leroy Int.....	AZ LOM.....	Direct.....	2800	T-dn.....	300-1	300-1	200-1/2
AZO VOR.....	AZ LOM.....	Direct.....	2800	C-dn.....	400-1	500-1	300-1/2
BTL VOR.....	AZ LOM.....	Direct.....	2800	S-dn-35*.....	200-1/2	200-1/2	200-1/2
Centerville Int.....	Barton Int.....	Via BTL R-218 and AZO R-192.	2800	A-dn.....	600-2	600-2	600-2
Barton Int.....	AZ LOM (final).....	Direct.....	2800				
Lawton Int.....	AZ LOM.....	Direct.....	2800				
Cooper Int.....	AZO VOR.....	Direct.....	2800				
Hickory Int.....	AZO VOR.....	Direct.....	2800				
GRR VOR.....	AZO VOR.....	Direct.....	2900				

Procedure turn E side of crs, 172° Outbnd, 352° Inbnd, 2800' within 10 miles.

Minimum altitude at glide slope interception Inbnd, 2800'.

Altitude of glide slope and distance to approach end of runway at OM, 2717'—5.8 miles; at MM, 1070'—0.5 mile.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished, climb to 3000', proceed to Cooper Int via AZO VOR E-23 or, when directed by ATC, climb to 2800', turn left and return to AZ LOM.

AIR CARRIER NOTE: 300-1/4 authorized when tower not operating for air carrier with weather reporting service.

CAUTION: Glide slope not usable Inbnd from middle marker; satisfactory for authorized minimums.

*400-1/4 required when glide slope not utilized. 400-1 required when tower not operating.

Alternate minimums authorized only when AZO tower operational or for air carrier with weather reporting service.

City, Kalamazoo, Mich.; Airport name, Kalamazoo Municipal; Elev., 874'; Fac. Class., ILS; Ident., I-AZO; Procedure No. ILS-35, Amdt. 5; Eff. date, 22 May 65; Sup. Amdt. No. 4; Dated, 25 Jan. 64

Greensburg Int.....	McKeesport RBN (final).....	Direct.....	3000	T-dn.....	300-1	300-1	200-1/2
Scottsdale Int.....	McKeesport RBN.....	Direct.....	3000	C-dn.....	500-1	500-1	300-1/2
Allegheny VOR.....	McKeesport RBN.....	Direct.....	3000	S-dn-27*.....	200-1/2	200-1/2	200-1/2
GP LOM.....	McKeesport RBN.....	Direct.....	3000	A-dn.....	600-2	600-2	600-2
McKeesport RBN.....	ILS OM (final).....	Direct.....	2700				
Imperial VOR.....	McKeesport RBN.....	IRL R-117.....	3000				
McKeesport RBN.....	Jeannette Int.....	Direct.....	3000				
Jeannette Int.....	McKeesport RBN (final).....	Direct.....	3000				

Radar vectoring authorized in accordance with approved patterns.

Procedure turn S side of crs, 095° Outbnd, 275° Inbnd, 3000' within 10 miles of MKP RBN. Nonstandard due to traffic.

Minimum altitude at glide slope interception Inbnd, 2700'. Glide slope may be intercepted at 3000' over MKP RBN or 2700' between MKP RBN and the ILS OM.

Altitude of glide slope and distance to approach end of runway at OM, 2615—4.2; at MM, 1480—0.6

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished, climb to 3000', proceeding to AGC RBN. Hold W right turns, 1 minute 082° Inbnd.

*400-1/4 with glide slope inoperative.

*400-1/2 authorized, except for 4-engine turbojet aircraft, with operative ALS.

City, Pittsburgh; State, Pa.; Airport name, Allegheny County; Elev., 1252'; Fac. Class., ILS; Ident., I-AGC; Procedure No. ILS-27, Amdt. 14; Eff. date, 22 May 65; Sup. Amdt. No. 13; Dated, 23 Jan. 65

SUX VOR.....	JKN RBN.....	Direct.....	2600	T-dn.....	300-1	300-1	*200-1/2
Jefferson Int.....	JKN RBN.....	Direct.....	2600	C-dn.....	600-1	600-1	600-1/2
Hubbard Int.....	JKN RBN.....	Direct.....	2800	S-dn-13.....	600-1	600-1	600-1
				A-dn.....	800-2	800-2	800-2

Procedure turn W side of crs, 307° Outbnd, 127° Inbnd, 2600' within 10 miles.

Minimum altitude over JKN RBN on final approach, 2300'.

Crs and distance, JKN RBN to approach end of runway, 127°—4.1 miles.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 4.1 miles after passing JKN RBN, climb to 2800' on SE crs of ILS within 20 miles.

CAUTION NOTE: This procedure not premised on use of glide slope.

NOTES: (1) When authorized by ATC, SUX DME may be used to position aircraft for straight-in approach at 3100' between R-260 clockwise to 350° via 19-mile DME arc with the elimination of procedure turn. (2) For aircraft departing northeastbound when weather is below 2400-2, flight below 3900' beyond 7 miles from airport is prohibited between the 347° and 025° radials of the SUX VORTAC due to a 3300' tower, 12 miles northeast of the airport.

*300-1 required for all takeoffs on Runway 4, due to 1315' terrain 1.4 miles ENE of airport.

City, Sioux City, Iowa; Airport name, Sioux City Municipal; Elev., 1097'; Fac. Class., ILS; Ident., I-SUX; Procedure No. ILS-13 (back crs), Amdt. 5; Eff. date, 22 May 65; Sup. Amdt. No. 4; Dated, 10 Apr. 65

ILS STANDARD INSTRUMENT APPROACH PROCEDURE—Continued

Transition				Ceiling and visibility minimums			
From—	To—	Course and distance	Minimum altitude (feet)	Condition	2-engine or less		More than 2-engine, more than 65 knots
					65 knots or less	More than 65 knots	
SUX VOR	LOM	Direct	2600	T-dn	300-1	300-1	*200-1½
				C-dn	500-1	500-1	600-1½
				S-dn-31	200-1½	200-1½	200-1½
				A-dn	600-2	600-2	600-2

Procedure turn E side of crs, 127° Outbound, 307° Inbound, 2600' within 10 miles.

Minimum altitude at glide slope interception Inbound, 2600'.

Altitude of glide slope and distance to approach end of runway at OM, 2675'—5.3 miles; at MM, 1287'—0.5 mile.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished, climb to 3000' on NW crs, ILS within 15 miles or, when directed by ATC, turn left and climb to 3000' on R-260 of SUX VOR within 20 miles.

Notes: (1) When authorized by ATC, SUX DME may be used to position aircraft for straight-in approach at 3000' between R-060 clockwise to R-255 via 10-mile DME arc with the elimination of procedure turn. (2) For aircraft departing northeastbound when weather is below 2400-2, flight below 3000' beyond 7 miles from airport is prohibited between the 347° and 023° radials of the SUX VORTAC due to a 3395' tower, 12 miles NE of the airport.

*200-1 required for all takeoffs on Runway 4, due to 1318' terrain 1.4 miles ENE of airport.

City, Sioux City; State, Iowa; Airport name, Sioux City Municipal; Elev., 1697'; Fac. Class., ILS; Ident., I-SUX; Procedure No. ILS-31, Amdt. 11; Eff. date, 22 May 65; Sup. Amdt. No. 16; Dated, 10 Apr. 65

McClure Int.	LOM	Direct	2200	T-dn	300-1	300-1	200-1½
Waterville VOR	LOM	Direct	2200	C-dn	500-1	500-1	500-1½
Harbor View Int.	LOM	Direct	2200	S-dn-7*	200-1½	200-1½	200-1½
Gerald Int.	LOM	Direct	2300	A-dn	600-2	600-2	600-2

Radar vectoring authorized in accordance with approved patterns.

Procedure turn S side of crs, 249° Outbound, 069° Inbound, 2100' within 10 miles.

Minimum altitude at glide slope interception Inbound, 2000'.

Altitude of glide slope and distance to approach end of runway at OM, 1983'—4.7 miles; at MM, 892'—0.6 mile.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished, make climbing right turn to 2200', proceed to Waterville VOR. Hold SE Waterville VOR on R-140, right turns, 1 minute, 330° Inbound, or when directed by ATC, climb to 2000' on NE localizer crs to Harbor View Int, hold NE Harbor View Int, left turns, 1 minute, 249° Inbound.

CAUTION: Tower, 809'—1¼ miles S of LMM.

*200-1½ required with glide slope inoperative. 400-1½ authorized, except for 4-engine turbojet aircraft, with operative ALS.

City, Toledo; State, Ohio; Airport name, Toledo Express; Elev., 684'; Fac. Class., ILS; Ident., I-TUL; Procedure No. ILS-7, Amdt. 10; Eff. date, 22 May 65; Sup. Amdt. No. 9; Dated, 2 Jan. 65

Harbor View Int.	Holland Int (final)	Direct	2200	T-dn	300-1	300-1	200-1½
				C-dn	500-1	500-1	500-1½
				S-dn-25*	400-1	400-1	400-1
				A-dn	800-2	800-2	800-2

Radar vectoring authorized in accordance with approved radar patterns.

Procedure turn N side of crs, 069° Outbound, 249° Inbound, 2600' within 10 miles of Holland Int.

No glide slope or markers. Descend to landing minimums after passing Holland Int. Minimum altitude over Holland Int, 2200'.

Crs and distance, Holland Int to Runway 35, 249°—4.7 miles.

If visual contact not established upon descent to authorized landing minimums or if landing not accomplished within 4.7 miles after passing Holland Int, climb straight ahead to 2100' on 249° crs to Toledo LOM. Hold SW Toledo LOM, right turns, 1 minute, 069° Inbound.

CAUTION: Tower, 809'—1¼ miles S of middle marker.

*200-1½ authorized, except for 4-engine turbojet aircraft, with operative high-intensity runway lights.

City, Toledo; State, Ohio; Airport name, Toledo Express; Elev., 684'; Fac. Class., ILS; Ident., I-TOL; Procedure No. ILS-25 (back crs), Amdt. 7; Eff. date, 22 May 65; Sup. Amdt. No. 8; Dated, 27 Mar. 65

6. By amending the following radar procedures prescribed in § 97.19 to read:

RADAR STANDARD INSTRUMENT APPROACH PROCEDURE

Bearings, headings, courses and radials are magnetic. Elevations and altitudes are in feet, MSL. Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles.

If radar instrument approach is conducted at the below named airport, it shall be in accordance with the following instrument procedure, unless an approach is conducted in accordance with a different procedure for such airport authorized by the Administrator of the Federal Aviation Agency. Initial approaches shall be made over specified routes. Minimum altitude(s) shall correspond with those established for en route operation in the particular area or as set forth below. Positive identification must be established with the radar controller. From initial contact with radar to final authorized landing minimums, the instructions of the radar controller are mandatory except when (A) visual contact is established on final approach or (B) at pilot's discretion if it appears desirable to discontinue the approach, except when the radar controller may direct otherwise prior to final approach, a missed approach shall be executed as provided below when (A) communications on final approach is lost for more than 5 seconds during a precision approach, or for more than 30 seconds during a surveillance approach; (B) directed by radar controller; (C) visual contact is not established upon descent to authorized landing minimums; or (D) if landing is not accomplished.

Radar terminal area maneuvering sectors and altitudes														Ceiling and visibility minimums			
From	To	Dist.	Alt.	Dist.	Alt.	Dist.	Alt.	Dist.	Alt.	Dist.	Alt.	Dist.	Alt.	Condition	2-engine or less		More than 2-engine, more than 65 knots
															65 knots or less	More than 65 knots	
333	020	40	4500	30	3300	20	2500							T-dn* C-dn S-dn 1 and 19 A-dn	Surveillance approach		300-1 500-1 500-1 500-1 800-2
020	050	40	3000	30	3000										300-1	300-1	
050	120	40	5500					12	2500						500-1	500-1	
120	180	40	4000	30	4000	20	2500								500-1	500-1	
180	205	40	2500	30	2500	20	3000								800-2	800-2	
205	220	40	5500	30	5000												
220	258	40	5000			20	3500	12	3000								
258	290	40	4000														
290	310	40	3000														
310	333	40	4000														
000	088			30	4500												
088	130			30	5500	20	4000										
130	250			30	4000												
250	333			30	3000												
333	020					20	3000										
020	050					20	3500										

RULES AND REGULATIONS

RADAR STANDARD INSTRUMENT APPROACH PROCEDURE—Continued

Radar terminal area maneuvering sectors and altitudes														Ceiling and visibility minimums		
From	To	Dist.	Alt.	Dist.	Alt.	Dist.	Alt.	Dist.	Alt.	Dist.	Alt.	Dist.	Alt.	Condition	2-engine or less	More than 2-engine, more than 65 knots
153	180					20	3000									
208	333					20	3000			12	2000					
333	060									12	1800					
130	230									12	2000					
000	360											5	1500			

NOTE: Standard clearance of 1000' from 0-3 miles must be provided over: (1) 700' antenna, 2.5 miles W of airport. (2) 2176' antenna, 26.0 miles NW of airport. (3) 111' antenna, 8.0 miles E of airport. (4) 1900' antenna, 10.7 miles SW of airport. (5) 860' antenna, 5.5 miles SE of airport. (6) 2300' antenna, 31.0 miles SW of airport. If visual contact not established upon descent to authorized landing minimums or if landing not accomplished, Runway 1: Climb to 1800' direct to AL LOM. Hold N of AL LOM, right turns 1 minute, 191° Inbnd. Runway 19: Climb to 2000' direct to Greenbush Int, right turns, 1 minute, 014° Inbnd.

*300-1 required for all takeoffs on Runways 10, 28, 15, and 33.

City, Albany; State, N.Y.; Airport name, Albany County; Elev., 388'; Fac. Class. and Ident., Albany Radar; Procedure No. 1, Amdt. 1; Eff. date, 22 May 65; Sup. Amdt. No. Orig.; Dated, 23 June 62

Transition				Ceiling and visibility minimums		
From—	To—	Course and distance	Minimum altitude (feet)	Condition	2-engine or less	More than 2-engine, more than 65 knots
					65 knots or less	More than 65 knots
060°	080°	Within: 20 miles..... 10 miles.....	1700 1500	Surveillance approach		
All sectors.....				T-dn..... C-dn..... S-dn#..... A-dn.....	300-1 500-1 500-1 800-2	300-1 500-1 500-1 800-2
				Precision approach		
				S-dn-13..... S-dn-4, 31..... A-dn-13, 4, 31...	200-1½ 300-1½ 600-2	200-1½ 300-1½ 600-2

Radar terminal area transition altitudes—all bearings from the radar site with sector azimuths progressing clockwise. If visual contact not established upon descent to authorized landing minimums or if landing not accomplished, Runways 4, 8, 13, and 17: Make left-climbing turn to 1500' on GYN VOR R-213 to Nesco Int, hold E, 1-minute, left turns, Inbnd crs, 284°. Runways 31, 35, 36, and 22: Make right-climbing turn to 1500' on GYN VOR R-213 to Nesco Int, hold E, 1-minute, left turns, Inbnd crs, 284°.

CAUTION: Radar tower, 229'—0.7 mile SW Runway 4.

*400-1 authorized for Runways 13, 17, 22, 26, and 31.

*400-1½ authorized, except for 4-engine turbojet aircraft, with operative hi-intensity runway lights for runways 13 and 31.

*400-1½ authorized, except for 4-engine turbojet aircraft, with operative ALS Runway 13.

City, Atlantic City; State, N.J.; Airport name, NA FIC Atlantic City; Elev., 76'; Fac. Class. and Ident., Atlantic City Radar; Procedure No. 1, Amdt. 5; Eff. date, 22 May 65; Sup. Amdt. No. 4; Dated, 7 Dec. 63

225° CW.....	265°	Within: 15 miles.....	2000	Surveillance approach		
225° CW.....	265°	15-20 miles.....	2300	T-dn.....	300-1	300-1
265° CW.....	350°	20 miles.....	2300	C-dn.....	500-1	500-1
350° CW.....	225°	20 miles.....	2300	S-dn 16, 34, 25#.....	400-1	400-1
000° CW.....	300°	20-30 miles.....	2500	S-dn-7.....	500-1	500-1
				A-dn.....	800-2	800-2

Radar vectoring authorized in accordance with approved radar patterns. Radar control will provide 1000' vertical clearance within a 3-mile radius of the 1629' and 1625' towers, 18 miles NE of airport. If visual contact not established upon descent to authorized landing minimums or if landing not accomplished, Runway 7: Make climbing right turn to 2300', proceed to Waterville VOR. Hold SE Waterville VOR R-140, right turns, 1 minute, 320° Inbnd. Runway 16: Make climbing left turn to 2300', proceed to Waterville VOR. Hold SE Waterville VOR R-140, right turns, 1 minute, 320° Inbnd. Runway 25: Climb straight ahead to 2100', proceed to Toledo LOM. Hold SW Toledo LOM, right turns, 1 minute, 069° Inbnd. Runway 34: Make climbing left turn to 2100', proceed to Toledo LOM. Hold SW Toledo LOM, right turns, 1 minute, 069° Inbnd. *400-1½ authorized for Runway 25, except for 4-engine turbojet aircraft, with operative high-intensity runway lights.

City, Toledo; State, Ohio; Airport name, Toledo Express; Elev., 684'; Fac. Class. and Ident., Toledo Radar; Procedure No. 1, Amdt. 3; Eff. date, 22 May 65; Sup. Amdt. No. 2 Dated, 27 Mar. 65

035°.....	290°	0-6 miles.....	2500	Surveillance approach		
290°.....	035°	0-6 miles.....	2800	T-d#.....	300-1	300-1
165°.....	195°	6-8 miles.....	2500	C-d#.....	700-1	700-1
195°.....	165°	6-25 miles.....	3000	S-D-15#.....	700-1	700-1
165°.....	195°	8-10 miles.....	2800	A-d#.....	NA	NA
165°.....	195°	10-25 miles.....	3000			

All bearings and distances are from radar site. If visual contact not established upon descent to authorized landing minimums or if landing not accomplished, turn left, climbing to 3100' on R-002 IAB VOR, intercept R-051 ICT VOR, proceed to DeGraff Int.

NOTE: Aircraft executing missed approach may be radar controlled after being reidentified.

*3400' within 0-3 miles of 2444' tower located 15 miles WNW of Beech Airport.

*Airport attended Monday through Friday, daylight hours only. No runway lights.

City, Wichita; State, Kans.; Airport name, Beech Factory; Elev., 1387'; Fac. Class. and Ident., Wichita Radar; Procedure No. 1, Amdt. 2; Eff. date, 22 May 65; Sup. Amdt. No. 1; Dated, 30 Apr. 64

These procedures shall become effective on the dates specified therein.

(Secs. 307(c), 313(a), 601, Federal Aviation Act of 1958; 49 U.S.C. 1348 (c), 1354(a), 1421; 72 Stat. 749, 752, 775)

Issued in Washington, D.C., April 15, 1965.

C. W. WALKER,
Acting Director, Flight Standards Service.

[Docket Nos. 719, 873, 1093; Amdt. 121-7]

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

This amendment completely revises the crewmember and aircraft dispatcher training program requirements contained in Subpart N of Part 121 of the Federal Aviation Regulations.

In addition, amendments are made to certain requirements of Subpart O "Flight Crewmember Qualifications". One amendment concerns the use of approved aircraft simulator training courses in lieu of alternate required proficiency flight checks and also the use of aircraft simulators for certain proficiency flight check maneuvers. Another amendment to this subpart adds a requirement for an initial and annual proficiency check for pilots serving as other than pilot in command and second in command. Additional amendments to Subpart O are made to conform certain requirements with the amended training program requirements.

These amendments are based on three separate notices of proposed rule making issued by the Federal Aviation Agency. These notices were: (1) Draft Release 61-7, "Qualification and Training Requirements for Pilots Other Than Pilots in Command"; (2) Draft Release 61-17, "Use of Aircraft Simulators for Pilot Training and Proficiency Checks"; and (3) Draft Release 62-9, "Approval of Air Carrier Training Programs".

CAR Parts 40, 41, and 42 were recodified into FAR Part 121 effective April 1, 1963, and these amendments are therefore issued as amendments to Part 121. The term "certificate holder" is used in this preamble and in the amendments, as in Part 121, to include all air carriers and commercial operators certificated under Part 121.

The Agency has held several informal meetings since these notices were issued with the organizations representing the persons affected by the three proposals. The most recent of these meetings were held in June and July of 1964. Reports of these meetings are included in the Docket for Draft Release 62-9. This rule reflects the comments received by the Agency at these meetings in addition to the comments received in response to the original notices.

The major proposals from each of these notices and the amendments based thereon are hereinafter discussed separately.

Draft Release 61-7. As proposed in this notice, the recent experience provision is amended to require that those requirements be met by "all pilots who serve as required flight crewmembers, or who are utilized at the flight controls during takeoffs and landings." The present recent experience requirements (i.e., three takeoffs and three landings within preceding 90 days) apply only to pilots serving as pilot in command or second in command. The Air Transport Association of America objected to this

proposal on the ground that it was inconsistent with the Agency's policy with respect to pilot crewmembers not required by the regulations; that is, that the training requirements be consistent with the duties performed. The Agency does not agree that any inconsistency is created. As stated in Draft Release 61-7, the Agency believes that each "required" pilot flight crewmember should be qualified to relieve other pilots at the flight controls during any phase of flight, including takeoffs and landings.

As proposed in Draft Release 61-7, § 121.449 is amended to require that the second in command of a crew of three or more pilots be subject to the same semi-annual proficiency check requirement as a pilot in command and further to require an initial and annual pilot proficiency check for all pilots not covered by the pilot in command and second in command proficiency check requirements.

Draft Release 61-17. The majority of the proposals in this notice were related to minimum standards for the approval of airplane simulators. These standards were adopted as amendments to CAR Parts 40, 41, and 42 effective June 10, 1963. Those portions of Draft Release 61-17 that were not included in the 1963 amendments were related to the use of airplane simulators in conducting pilot proficiency checks. Basically, the proposal sought to incorporate in the rules the substance of CAMs 40.302-3 and -4 (and comparable CAMs to Parts 41 and 42).

As indicated in the notice, even before the 1967 amendment permitting the substitution of an approved course of training in an airplane simulator for every other required proficiency flight check, those certificate holders using approved simulators in their training programs were permitted to conduct all but four of their pilot in command proficiency check maneuvers in the simulator, instead of in an airplane in flight. However, specific approval by the Agency was required before a certificate holder could make such a substitution. The Agency feels that since this program has operated successfully for many years it should be set forth in the rules as proposed in Draft Release 61-17. Accordingly, a new § 121.442 incorporates the provisions proposed in Draft Release 61-17 and presently contained in CAMs 40.302-3 and -4.

Draft Release 62-9. This notice proposed to amend CARs 40, 41, and 42 to specify the procedures and minimum standards to be used in obtaining approval of a training program. As indicated in the draft release, while the CARs were amended effective January 1, 1961, to require "approval" of the training program established by each certificate holder, that amendment did not contain any procedures or minimum standards for obtaining such approval.

Draft Release 62-9 proposed to add an appendix that set forth in detail the curriculum requirements necessary to obtain approval of a training program. Many of the comments received on the notice were critical of the amount of detail included in the proposed rule. It was suggested, that by setting forth the

procedures and minimum requirements in such detail, the Agency would put too much emphasis on uniformity and thereby would discourage the efforts of individual certificate holders to use initiative to improve their training programs. Upon reviewing the proposal, the Agency agrees that the rules should contain only those minimum items that are necessary, in the interest of safety, in every training program. Accordingly, the rule as adopted does not contain the type of appendix originally proposed. Instead the Agency has included in the rules, in as broad terms as possible, those items felt to be essential to every training program. The appendix now being added is basically a table setting forth the programmed hours of training, for each trainee in each major category, that the Agency would consider to be a minimum in the absence of a showing by the certificate holder that circumstances justify a lesser amount. Those circumstances that would justify such a reduction are set forth in § 121.414. The table as adopted is basically the same as Chart 1 contained in the notice.

The rules as adopted make clear the basic requirements for initial and recurrent training for each crewmember and aircraft dispatcher. Provision is made for the revision of an approved training program at the initiative of either the certificate holder or the Administrator. The provisions for revision on the Administrator's initiative are comparable to those contained in the recently adopted continuous maintenance program and set forth in § 121.373.

The provision of § 121.421(a) authorizing the "initial training" of a flight engineer to be given in operations under Part 121 has been deleted. This change is consistent with the Agency's repeal of a comparable authorization in § 40.307 in amendment 40-43. Recurrent training and the annual flight check (except emergency procedures) may, however, be conducted in operations under Part 121 as long as the flight engineer remains qualified to serve in such operations. The basis for this distinction is the Agency's belief that operations under the Part should not be exposed to the hazards that might be created by the use of a flight engineer, whose qualifications have not been determined or have expired.

In view of the requirement that each pilot receive recurrent training each year in each type airplane in which he is to retain qualification, the Agency believes that the requirement that every other proficiency check must be performed in the largest type airplane flown is no longer needed. Accordingly, this requirement is deleted from §§ 121.441 and 121.449.

In view of the detailed crewmember emergency training requirement included in this amendment the training requirement contained in § 121.397(c) is deleted as obsolete.

After further deliberation and in consideration of all comments received in response to DR 62-9, it is not deemed necessary or appropriate at this time to set forth requirements for the minimum number of programmed hours of ground and flight training for training programs

applicable to airplanes with a maximum certificated takeoff weight of 12,500 pounds or less. Such requirements would only be applicable to a few scheduled certificate holders using small airplanes and located for the most part in Alaska. Such certificate holders' training programs vary considerably depending on the type of operation conducted. Accordingly, standardized programmed hours such as proposed in Chart 2 are not being adopted at this time for application to the approved training programs of certificate holders using small airplanes.

Interested persons have been afforded an opportunity to participate in the making of this amendment (26 F.R. 3438 (DR 61-7); 26 F.R. 8461 (DR 61-17); 27 F.R. 2319 (DR 62-9)), and due consideration has been given to all relevant matter presented.

In consideration of the foregoing, Chapter I of Title 14 of the Code of Federal Regulations is amended as hereinafter set forth effective August 16, 1965.

(Secs. 313(a), 601, 604, 605, Federal Aviation Act of 1958; 49 U.S.C. 1354, 1421, 1424, 1425)

Issued in Washington, D.C., on May 11, 1965.

N. E. HALABY,
Administrator.

§ 121.433 [Amended]

1. By amending § 121.433(a) by striking the reference to section "121.423" and inserting in place thereof "121.422, 121.425,".

2. By amending § 121.439 to read as follows:

§ 121.439 Pilot qualification: Recent experience.

Unless, within the preceding 90 days, the pilot has made at least three takeoffs and three landings in an airplane of the type in which he is to serve, no certificate holder may use a pilot—

- (a) As a pilot in command;
- (b) As a second in command;
- (c) As a pilot flight crewmember required by this part; or
- (d) At the flight controls of an airplane during takeoffs or landings.

3. By amending § 121.441 as follows:

a. By amending the second sentence of paragraph (b) by striking the word "a" after the words "Administrator or" and by inserting the words "an approved" in place thereof.

b. By striking the third sentence of paragraph (b) and by amending subparagraph (23) thereof to read as follows:

§ 121.441 Pilot checks.

(b) Proficiency check.

(23) Flight maneuvers, except that weight and power combinations less than those specified may be used if the performance capabilities of the airplane under the specified conditions are simulated:

(i) At the authorized maximum take-off weight, takeoff using maximum take-off power with a simulated failure of the critical engine.

(ii) If a three-engine or four-engine airplane, flight, including maneuvering to a landing at the authorized maximum landing weight, with the most critical combination of two engines inoperative or operating at zero thrust using, where appropriate, applicable climb speeds set forth in the Airplane Flight Manual.

(iii) At the authorized maximum landing weight, simulated pull-out at a safe altitude from the approach configurations with the critical engine inoperative or operating at zero thrust and from the landing configuration with all engines operative.

c. By striking paragraph (d) and by redesignating paragraph (e) as (d).

4. By adding a new § 121.442 to read as follows:

§ 121.442 Use of flight simulator.

(a) *Substitution of approved airplane simulator training course for proficiency flight check.* After the first proficiency check, the satisfactory completion of an approved training course in an approved airplane simulator may be substituted at alternate six-month intervals for the proficiency check required by § 121.441 (b), if the simulator meets the requirements of Appendix B of this part and—

(1) The simulator is maintained at the same level as required for initial approval;

(2) A functional preflight check of the simulator is performed each day before beginning simulator flight training or proficiency checks;

(3) A daily discrepancy log is kept and an entry of each discrepancy is made by the simulator instructor or check airman before the end of each training or check flight; and

(4) If a modification is made to the airplane, a corresponding modification is made to the simulator if necessary for flight crew training or proficiency checks.

The simulator may be used with inoperative instruments or equipment if they are not applicable to the particular phase of training being given.

(b) *Airplane simulator training course requirements.* When a course of training in an approved airplane simulator is to be substituted for a required proficiency check as provided for in paragraph (a) of this section, the certificate holder must comply with at least the following in conducting the course of training:

(1) The course must be conducted in an approved simulator appropriate to the particular type of airplane and must include:

(i) Each flight maneuver required for a proficiency check as specified in § 121.441 (b), except maneuvering at minimum speed, landing under circling approach conditions, takeoffs, and landings with simulated engine failures, and the instrument approach procedures for which the lowest minimums are approved.

(ii) Appropriate maneuvers peculiar to the particular type of airplane (such as dutch roll);

(iii) At least four hours of simulator flight training time and instruction in all normal and emergency procedures ap-

propriate to the particular type of airplane;

(iv) At least two hours of briefing and debriefing on the maneuvers and procedures involved.

(2) A sufficient number of airplane simulator instructors must be provided. Each instructor must hold, or have held, a valid airline transport pilot certificate and have completed, to the satisfaction of an approved check airman or the Administrator, the approved pilot ground training course and a complete airplane simulator flight training course for the type airplane simulator on which he is to instruct.

(3) Satisfactory completion of the approved simulator course by each trainee must be certified to by an approved check airman or the Administrator.

(4) A record system must be established and maintained on each trainee indicating the kind, amount, and dates of training received and certification of satisfactory completion.

(c) *Use of approved airplane simulator as part of required proficiency check.*

In addition to the authorization contained in paragraph (a) of this section for the substitution of an approved airplane simulator training course for certain proficiency checks required by § 121.441 (b), an approved airplane simulator may be used in the conduct of such a proficiency check as follows:

(1) An approved airplane simulator may be used to conduct all required maneuvers except those excluded in paragraph (b) (1) (i) of this section.

(2) Except for the oral equipment examination and the maneuvers associated with orientation, beam bracketing, cone identification, loop orientation, and other such maneuvers authorized to be given in a synthetic trainer in subparagraph (24) of paragraph (b) of § 121.441, those parts of a required proficiency flight check given in an approved airplane simulator under subparagraph (1) of this paragraph must be satisfactorily demonstrated to an approved check airman or the Administrator.

§ 121.443 [Amended]

5. By amending § 121.443(a) by inserting the words "an approved" immediately after the words "appropriate instructor or".

6. By amending § 121.449 to read as follows:

§ 121.449 Proficiency checks: Second in command and other pilots.

(a) A certificate holder may not use a pilot as second in command or in any other capacity as a pilot crewmember (other than pilot in command) unless he has satisfactorily shown to the Administrator or an approved check pilot that he is able to pilot and navigate each airplane that he is to fly and to perform his assigned duties. Thereafter, he may not serve as second in command or in any other capacity as a pilot crewmember (other than pilot in command) unless each 12 calendar months he satisfactorily completes a similar pilot proficiency check.

(b) Except as provided in paragraphs (c) and (d) of this section, the profi-

ciency check must include at least an oral or written equipment test and the following procedures and flight maneuvers:

- (1) Takeoffs and landings.
- (2) The procedures and flight maneuvers set forth in §§ 121.418(a) (5) through (8) and 121.420(a).

(c) After the first proficiency check, the satisfactory completion of an approved training course in an approved airplane simulator that meets the requirements of § 121.442(a) may be substituted at alternate 12 calendar month intervals for the proficiency checks required by paragraph (a) of this section. Satisfactory completion of a proficiency check in accordance with § 121.441 or § 121.442 meets the requirements of this section.

(d) For pilots who are not to serve at the flight controls during takeoff or landing, the initial and annual proficiency checks need include only the assigned flight duties (including flight emergencies) and the maneuvers and procedures set forth in § 121.418(a) (5) through (9).

(e) For pilots who are to serve as second in command of an operation requiring three or more pilots, the proficiency check requirements are the same as those required for a pilot in command in § 121.441 and must be completed every 6 months.

(f) The provisions and limitations set forth in § 121.442 with respect to the use of approved airplane simulators in substitution for or in the conduct of proficiency checks, are also applicable to the proficiency check requirements of this section.

§ 121.397 [Amended]

7. By striking paragraph (c) of § 121.397.

§ 121.463 [Amended]

8. By striking the reference to section "121.425" in § 121.463(a) and by inserting in place thereof a reference to "121.423".

9. By amending Subpart N of Part 121 and by adding an Appendix E to Part 121 as hereinafter set forth.

Subpart N—Crewmember and Aircraft Dispatcher Training Program

- | | |
|---------|---|
| Sec. | |
| 121.410 | Applicability. |
| 121.411 | Training program: General. |
| 121.412 | Training program: Approval and revision. |
| 121.413 | Certification of completion of training. |
| 121.414 | Curriculum requirements. |
| 121.415 | Synthetic trainers. |
| 121.416 | Crewmember emergency training. |
| 121.417 | Ground training: Pilots. |
| 121.418 | Flight training: All pilots. |
| 121.419 | Flight training: Pilot in command and second in command in a crew requiring three or more pilots. |
| 121.420 | Flight training: Second in command and certain other pilots. |
| 121.421 | Flight engineer training. |
| 121.422 | Flight navigator training. |
| 121.423 | Aircraft dispatcher training: Domestic and flag air carriers. |
| 121.424 | Flight attendant training. |
| 121.425 | Initial flight assignments on a particular type of airplane. |

AUTHORITY: The provisions of this Subpart N issued under secs. 313(a), 601, 604, and 605, Federal Aviation Act of 1958; 49 U.S.C. 1354, 1421, 1424, and 1425.

Subpart N—Crewmember and Aircraft Dispatcher Training Program

§ 121.410 Applicability.

Except where otherwise stated, this subpart prescribes requirements applicable to each certificate holder for establishing and maintaining a training program for each crewmember and each required aircraft dispatcher.

§ 121.411 Training program: General.

(a) Each certificate holder shall—
(1) Establish, obtain approval of, and maintain a training program that meets the requirements of this subpart and that ensures that each crewmember and each aircraft dispatcher is adequately trained to perform his assigned duties;

(2) Provide adequate ground and flight training facilities and properly qualified instructors for the training required by this subpart;

(3) Provide and keep current, with respect to each airplane type it uses, appropriate course material, examinations, training forms, instructions, and procedures for use in conducting the checks required by this subpart; and

(4) Provide enough approved check airmen (who hold at least the same airman certificates and ratings that the airman being checked is required to hold) to conduct the flight checks required by this part.

(b) No certificate holder may use any crewmember or aircraft dispatcher in operations under this Part unless before serving in such operations the crewmember or dispatcher has—

(1) Satisfactorily completed the appropriate initial training phase of the certificate holder's approved training program; and

(2) Thereafter, at least once each 12 months, has satisfactorily completed the appropriate recurrent training phase and any required checks.

(c) Whenever a crewmember or aircraft dispatcher who is required to take recurrent training, a flight check, or a competence check, takes that check or completes that training in the calendar month before, or the calendar month after, the calendar month in which it becomes due, he is considered to have taken or completed it in the calendar month in which it became due.

§ 121.412 Training program: Approval and revision.

(a) To obtain initial approval of its training program or approval of any revision thereto, each certificate holder must submit to the Administrator—

(1) Three copies of the proposed curriculum; and

(2) Training forms, records, and any other relevant material requested by the Administrator.

(b) The Administrator approves a training program or revisions to an approved training program if he finds that the curriculum complies with this subpart and Appendix E of this part.

(c) Whenever the Administrator finds that revisions to an approved training program are necessary for the continued adequacy of the program, the certificate holder shall, after notification by the Administrator, make any changes in the

program found by the Administrator to be necessary. A certificate holder may petition the Administrator to reconsider the notice to make a change in a program. The petition must be filed with the FAA Air Carrier District Office charged with the overall inspection of the certificate holder's operations within 30 days after the certificate holder receives the notice. Except in the case of an emergency requiring immediate action in the interest of safety, the filing of the petition stays the notice pending a decision by the Administrator.

§ 121.413 Certification of completion of training.

Each instructor, supervisor, or approved check airman who is responsible for particular initial or recurrent training or a flight check shall certify as to the proficiency of the crewmember or dispatcher concerned after he completes that training or check. That certification shall be made a part of the crewmember's or dispatcher's record.

§ 121.414 Curriculum requirements.

(a) *General.* The training program for each crewmember and dispatcher must consist of appropriate ground and flight training as required in this subpart and except as provided in paragraph (b) or (c) of this section, must include the programmed hours of initial and recurrent training set forth in Appendix E of this part. The certificate holder shall standardize procedures for each flight crew function so that each flight crewmember knows the functions for which he is responsible and the relation of those functions to the functions of other flight crewmembers.

(b) *Reduction in programmed hours: General.* A certificate holder may apply to the Administrator for a reduction in the programmed hours of training for the following situations:

(1) When a crewmember's or dispatcher's training and experience in previous training courses, including approved training courses conducted by another certificate holder, ensure that an adequate level of ability and proficiency would result from a modified training course and the certificate holder's training record contains satisfactory evidence to substantiate the prior training and experience.

(2) When a modified training course will adequately ensure proficiency for crewmembers and dispatchers transitioning from one airplane type to a similar airplane type (differences training).

(3) When a crewmember is transitioning from one crewmember function on an airplane to another crewmember function, for which he holds an appropriate airman certificate, on the same or a similar type airplane.

(4) When a re-evaluation of an approved training program shows that improvements in methods, training aids, quality of instruction, or any combination thereof, have increased training effectiveness to warrant the reduction.

(c) *Reduction in programmed hours: Initial flight training and initial flight assignments.* A reduction in the programmed hours of initial flight training is permitted as follows:

(1) A flight crewmember who progresses successfully through the initial flight training in less than the programmed flight time for that phase may be flight checked at that stage of the training by an approved check airman or by the Administrator, if recommended by the certificate holder's instructor or approved check airman. Whenever more than 20 percent of the flight checks given under this paragraph are unsatisfactory, the Administrator rescinds this privilege until he finds that satisfactory means have been taken to improve the effectiveness of the training.

(2) Whenever the hours of training in an approved airplane simulator set forth in column III of Appendix E are included in the initial flight training curriculum, the number of hours of initial flight training required in column II may be reduced by 25 percent. The Administrator may after evaluation grant proportionate reductions based on the use of other procedural trainers.

(3) The hours of initial flight assignment set forth in column V of Appendix E may be reduced (not to exceed 50 percent) for pilots and flight engineers by substituting one takeoff and one landing for each required hour of flight.

(4) A pilot who has satisfactorily completed the required programmed hours of initial training for second in command on a particular airplane type may qualify as pilot in command of that type airplane by completing the programmed hours of upgrade training set forth in Appendix E, in place of the programmed hours of initial training for that position.

(d) *Reduction in programmed hours: Recurrent ground training.* A certificate holder may apply to the Administrator for a reduction (not to exceed 25 percent) in the programmed hours of recurrent ground school training when the certificate holder uses a directed study course as part of its recurrent ground training.

§ 121.415 Synthetic trainers.

(a) *Approved airplane simulator.* An approved airplane simulator, appropriate to the particular type airplane, may be used to accomplish any training required in this subpart, unless that training is required to be performed in actual flight.

(b) *Use of synthetic trainers other than approved simulators.* Procedures trainers, systems trainers, or other training devices that are shown to be adequate for a particular phase of training required in this subpart may be used for that training unless it is required to be performed in actual flight.

§ 121.416 Crewmember emergency training.

(a) Each certificate holder shall design its training emergency procedures to give each crewmember who is assigned emergency and evacuation functions instruction in the appropriate emergency procedures listed below, including assignments in an emergency and coordination among crewmembers, and individual instruction in the location and operation of all emergency equipment used in ditching and evacuation:

(1) Procedures for handling failure of an engine, engines, or other airplane components or systems.

(2) Procedures for handling—
(i) Emergency decompression;
(ii) Fire in the air or on the ground;
(iii) Ditching; and
(iv) Evacuation.

(3) The power setting for maximum endurance and maximum range.

(b) The certificate holder shall give each crewmember, at least once each 12 calendar months, recurrent training in the emergency procedures set forth in this section.

(c) Synthetic trainers approved to simulate flight operating emergency conditions, static airplanes, ground demonstrations, classroom lectures, films, or other training devices, as appropriate, may be used for training crewmembers in emergency procedures if the method used ensures that each crewmember is adequately trained in the operation or use of all equipment such as lifevests, oxygen, oxygen masks, escape ropes and chutes, and emergency exits.

(d) The certificate holder shall give instruction, by lectures and films (or other equivalent means approved after demonstration) to each crewmember performing duties on pressurized airplanes operated above 25,000 feet covering at least—

(1) Respiration;
(2) Hypoxia;
(3) Duration of consciousness at altitudes without supplemental oxygen;
(4) Gas expansion;
(5) Gas bubble formation; and
(6) Physical phenomena and incidents of decompression.

(e) Each certificate holder shall include in its emergency training program drills, as appropriate to each type airplane and its equipment, using established procedures for:

(1) Ditching.
(2) Evacuation.
(3) Fire extinguishing.
(4) Operation and use of emergency exits.
(5) Use of evacuation chutes.
(6) Placing of escape ropes.
(7) Administration of crew and passenger oxygen.

(8) Removal of life rafts from airplane, inflation of rafts, and boarding of passengers and crew.

(9) Putting on and inflation of lifevests.

(10) Handling of passengers during emergencies.

In conducting drills, each certificate holder shall ensure that each trainee actually performs each function or action appropriate to his duties except those functions or actions that the Administrator finds can be adequately learned by the trainee through demonstration.

§ 121.417 Ground training: Pilots.

(a) The initial ground training that the certificate holder must provide for each pilot before he serves as a pilot flight crewmember must include at least instruction in—

(1) The appropriate provisions of the certificate holder's operations specifica-

tions and of the Federal Aviation Regulations, especially the operating and dispatch or flight release rules and airplane operating limitations;

(2) Dispatch procedures (domestic and flag air carriers) or flight release procedures (supplemental air carriers and commercial operators) and appropriate contents of the manuals;

(3) Duties and responsibilities of crewmembers;

(4) The type of airplane to be flown, including a study of the airplane, aircraft engines, major components and systems, performance limitations, cruise control, fuel consumption, flight planning, standard and emergency operating procedure, and appropriate contents of the approved Airplane Flight Manual;

(5) Principles and methods for determining weight and balance limitations for takeoff and landing;

(6) Navigation and the use of appropriate navigation aids, including instrument approach facilities and procedures that the certificate holder is authorized to use;

(7) Air traffic control systems and procedures, and pertinent ground control letdown procedures

(8) Enough meteorology to ensure a practical knowledge of the principles of icing, fog, thunderstorms, and frontal systems including, as appropriate, high altitude weather phenomena;

(9) Procedures for operating in turbulent air including, as appropriate, clear air turbulence, icing, hail, thunderstorm, and other potentially hazardous meteorological conditions; and

(10) Communications procedures and communications equipment failure procedures.

(b) Each certificate holder shall give each pilot—

(1) Any additional ground training necessary to ensure qualification in new equipment, procedures, or techniques; and

(2) Recurrent ground training every 12 calendar months to ensure his continued proficiency in procedures, techniques, and information essential to the satisfactory performance of his duties.

§ 121.418 Flight training: all pilots.

(a) The initial flight training that the certificate holder must provide for each pilot before he serves as a pilot flight crewmember must include at least the approved programmed hours of flight instruction and practice in the following:

(1) Assigned flight duties.
(2) Takeoffs and landings during day and night in each type of airplane in which he is to serve as a pilot.

(3) Normal and emergency flight maneuvers in each type of airplane in which he is to serve as pilot.

(4) Flight under simulated instrument conditions.

(5) Climbs and climbing turns.

(6) Maneuvers at minimum speeds.

(7) Engine shutdown and restart.

(8) Approaches to stalls.

(9) Flight under simulated IFR conditions using each kind of navigation facility used in normal operations.

(b) A pilot qualifying to serve as other than pilot in command or second in command shall show the Administrator or

an approved check pilot that he is able to take off and land each type of airplane in which he is to serve.

(c) Each certificate holder shall give each pilot—

(1) Any additional flight training necessary to ensure qualification in new equipment, procedures, or techniques; and

(2) Recurrent training each 12 calendar months consisting of at least the approved programmed hours of flight instruction and practice in the items set forth in paragraph (a) of this section and any required flight checks in each type airplane on which the pilot serves as a pilot and in which he is not required to receive a proficiency check or in substitution a simulator training course under § 121.441 or § 121.447.

(d) In addition to the initial and recurrent training required by this section, each certificate holder must provide any additional initial and recurrent training required in this subpart, as appropriate to the position in which the pilot is to serve.

§ 121.419 Flight training: Pilot in command and second in command in a crew requiring three or more pilots.

(a) *Initial.* The initial flight training that the certificate holder must provide for each pilot before he serves as a pilot in command or second in command of an operation that requires three or more pilots must include the approved programmed hours of flight instruction and practice in at least the maneuvers and procedures set forth in § 121.441(b) in each type airplane (in which he has not previously qualified) to be flown by him, and in addition the following:

- (1) Briefing session.
- (2) Preflight inspection of the airplane.
- (3) Pretakeoff checks.
- (4) Crosswind takeoffs.
- (5) Operation of systems controls at the flight engineer station.

(6) If appropriate to training in the particular type airplane, zero flap landings, dutch rolls, turns with and without spoilers, tuck and Mach buffet, procedures for runaway or jammed stabilizer, landing and go around with the horizontal stabilizer out of trim.

(7) In flight or in a static airplane, airplane simulator, procedures or systems trainer, or other appropriate training device—

(i) Normal operation as appropriate to the particular type airplane of the pressurization, pneumatic, air conditioning, fuel, oil, electronic, electrical, hydraulic, and flight control systems; and

(ii) In-flight emergency procedures, including, as appropriate to the particular type of airplane: powerplant, heater, cargo compartment, cabin, flight deck, wing, and electrical fires; smoke removal; electrical, hydraulic, flight control, and flight instrument system malfunction or failures; decompression; and fuel dumping.

In conducting a takeoff with a simulated failure of the critical engine under § 121.441(b)(23) in transport category airplanes, the engine failure must be simulated as close as possible to the critical engine failure speed V_1 and climb-out

must be made as close as possible to the takeoff safety speed V_2 , and the pilot shall determine the values for V_1 and V_2 .

(b) *Recurrent.* Each certificate holder shall give each pilot in command and second in command in an operation that requires three or more pilots at least two periods of recurrent flight training within each 12 calendar month period that together consist of at least the approved programmed hours and that include the maneuvers and procedures set forth in § 121.441(b). The recurrent training must be given in each type airplane in which the pilot is to retain qualification, except that where a pilot is qualified in more than one airplane type he need only be given one period of training in each type within each 12 calendar month period. Satisfactory completion of a required proficiency check in a particular type airplane under § 121.441 or § 121.442 is considered to satisfy the recurrent flight training or flight check required by this section in that type airplane.

§ 121.420 Flight training: Second in command and certain other pilots.

(a) *Initial.* The initial flight training that the certificate holder must provide for each pilot before he serves as second in command in an operation other than an operation requiring three or more pilots, before he serves at the flight controls during takeoff or landing, or before he serves as pilot (other than as pilot in command or second in command) in an operation requiring three or more pilots, must include the approved programmed hours of flight instruction and practice in at least the following maneuvers and procedures in each type airplane (in which he has not previously qualified) to be flown by him:

- (1) Assigned flight duties of second in command including flight emergencies.
- (2) Taxiing.
- (3) Takeoff and landing with simulated engine failure.
- (4) Flight under simulated IFR conditions including instrument approach at least down to circling approach minimums and a simulated missed approach using that kind of approach procedure for which the lowest minimums are approved.

(5) Flight under simulated IFR conditions using each kind of navigational facility and letdown procedure that is used in normal operations. Except for those approach procedures for which the lowest minimums are approved, letdown procedures may be given in a synthetic trainer that has the radio equipment and instruments necessary to simulate other navigational and letdown procedures approved for the certificate holder.

(6) Except for zero flap landing, the training set forth in § 121.419(a) (6) and (7).

(b) *Recurrent.* Each certificate holder shall give each pilot subject to the requirements of this section, recurrent training at least once each 12 calendar months. The recurrent training must—

(1) Consist of at least the approved programmed hours of training in the maneuvers and procedures set forth in subparagraphs (1) through (5) of paragraph (a) of this section and in emergency procedures.

(2) Be given in each type airplane in which the pilot is to retain qualification, except that satisfactory completion of a required proficiency check in a particular type airplane under § 121.441, § 121.442, or § 121.449 is considered to satisfy the recurrent flight training or flight check required by this section in that type airplane.

§ 121.421 Flight engineer training.

(a) The initial training that the certificate holder must provide for each flight engineer before he serves as flight engineer must include at least the approved programmed hours of ground and flight training in the following:

(1) Ground training in the subjects specified in subparagraphs (1) through (5) of § 121.417(a) and those parts of subparagraphs (8) through (10) of that paragraph relating to his duties, functions, and responsibilities;

(2) Enough flight training on each type airplane on which he is to serve to be proficient in the duties assigned to him and a flight check that includes the following:

- (i) A preflight inspection.
- (ii) Performance of assigned flight engineer duties accomplished from the flight engineer station during taxi, run-up, takeoff, climb, cruise, descent, approach, and landing.
- (iii) Normal and emergency or alternate operation of all airplane systems.
- (iv) Accomplishment of appropriate functions and computations, such as fuel management and fuel consumption records.

(b) Each certificate holder shall give each flight engineer—

(1) Any additional ground and flight training necessary to ensure his qualification in new equipment, procedures, and techniques; and

(2) At least once each 12 calendar months—

(i) A flight check (that conforms with the initial flight check) in each type airplane in which he is to retain qualification; and

(ii) Recurrent ground and flight training that includes at least the programmed hours set forth in the certificate holder's approved training program to ensure his continued proficiency with respect to procedures, techniques, and information essential to the satisfactory performance of his duties.

(c) Satisfactory completion of the flight check items set forth in subparagraph (2) of paragraph (a) of this section in each type airplane in which a flight engineer serves may be substituted for the programmed hours of recurrent flight training otherwise required in the approved training program for that type airplane.

(d) Except for emergency procedures and as prohibited in § 121.453, a recurrent flight check may be given in operations under this part or the entire check (excluding preflight inspection) may be given in a synthetic trainer that is representative of that type airplane.

§ 121.422 Flight navigator training.

(a) The initial training that the certificate holder must provide for each flight navigator before he serves as a flight navigator must include at least the

approved programmed hours of ground and flight training in the following:

(1) Ground training for each type airplane on which he is to serve, in at least the applicable parts of subparagraphs (1) through (4) and (6) through (8) of § 121.417(a) and in the following:

(i) Limitations on climb, cruise, and descent speeds.

(ii) Each item of navigational equipment installed, including relevant radio, radar, and other electronic equipment.

(iii) Relevant performance information in the certificate holder's manual.

(iv) Airspeed, temperature, and pressure indicating instruments or systems.

(v) Kinds of compasses, limitations, and methods of compensation.

(vi) Cruise control charts and data, including fuel consumption rates.

(2) Enough flight training to ensure his proficiency in the duties assigned to him.

(b) Each certificate holder shall give each flight navigator—

(1) Any additional ground and flight training necessary to ensure his qualification in new equipment, procedures, and techniques; and

(2) At least once each 12 calendar months, recurrent ground and flight training and a flight check to ensure his continued proficiency.

(c) The flight training required by this section may be given during flights under this part if given under the supervision of a qualified flight navigator. The flight checks required by this section may be given during flights under this part or in a synthetic trainer in place of a check in flight.

§ 121.423 Aircraft dispatcher training: Domestic and flag air carriers.

(a) The initial training each domestic and flag air carrier must provide for each aircraft dispatcher before he serves as a dispatcher must include at least the programmed hours of training set forth in the approved training program. In addition, each aircraft dispatcher shall, before performing duties as an aircraft dispatcher, satisfactorily demonstrate to the supervisor or ground instructor authorized to certify his proficiency, his knowledge of the following:

(1) Contents of the air carrier operating certificate.

(2) Appropriate provisions of the air carrier's operations specifications, manuals, and the Federal Aviation Regulations.

(3) Communications facilities used, including characteristics, limitations, and normal and emergency procedures.

(4) Navigational aids and publications.

(5) Meteorology, including types of meteorological information and forecasts, interpretation of weather data including forecasting of en route and terminal temperature and other weather conditions, frontal systems, wind conditions, and use of weather charts, actual and prognostic, for various altitudes.

(6) Flight operations procedures including the following:

(i) Duties and responsibilities of pilots and dispatchers.

(ii) Weight and balance computations.

(iii) Basic airplane performance dispatch requirements and procedures.

(iv) Notam system.

(v) Flight planning including track selection, flight time analyses, and fuel requirements.

(7) Airports used and the terrain en route.

(8) Prevailing weather phenomena.

(9) Sources of weather information available.

(10) Pertinent air traffic control procedures.

(11) Emergency procedures.

(12) Airplane performance information (applicable to each type airplane operated by the air carrier for which the dispatcher is responsible) including at least—

(i) Cruise control methods, procedures, and data;

(ii) Airplane limitations;

(iii) Airplane performance data;

(iv) Minimum equipment list; and

(v) Flight planning.

(b) The training program must emphasize emergency procedures, including the alerting of proper governmental, company, and private agencies to give the maximum help to an airplane in distress.

(c) Each air carrier shall give each dispatcher—

(1) Any additional training necessary to ensure his qualification for new equipment, procedures, and techniques; and

(2) At least once each 12 calendar months, recurrent ground training (consisting of the programmed hours set forth in the approved training program) and a competence check to ensure his continued competence with respect to the procedures, techniques, and information essential to his duties.

§ 121.424 Flight attendant training.

(a) The initial training that the certificate holder must provide for each flight attendant before he serves on a flight under this part must ensure that such crewmember is fully qualified to perform the duties assigned during flight time. This training must consist of at least the programmed hours of initial training set forth in the certificate holder's approved training program including at least the following, as appropriate to assigned duties and responsibilities:

(1) Authority of the pilot in command.

(2) Passenger handling, including procedures to be followed in the event of the presence of deranged persons or other persons whose conduct might jeopardize the safety of other passengers.

(3) With respect to each type of airplane on which a crewmember is to serve as a flight attendant in air transportation—

(i) A general description of the airplane;

(ii) A knowledge of all crewmember assignments, functions, and responsibilities during ditching and evacuation;

(iii) Briefing of passengers;

(iv) Use of public address system and means of communicating with cockpit;

(v) Location and operation of portable fire extinguishers, including a knowledge of the type of fires to be combated with each type of extinguisher;

(vi) Location and use of first-aid equipment;

(vii) Proper use of electrical galley equipment, cabin heat controls, if installed in cabin, and ventilation controls;

(viii) Location and operation of passenger oxygen equipment; and

(ix) Location and operation of all normal and emergency exits, including evacuation chutes and escape ropes.

(b) Each certificate holder shall give each flight attendant at least once each twelve calendar months recurrent training that includes at least the programmed hours set forth in the certificate holder's approved training program and a competence check to determine the attendant's ability to perform assigned duties and responsibilities.

§ 121.425 Initial flight assignments on a particular type of airplane.

(a) Except as provided in paragraph (b) of this section, in addition to the ground and flight training specified in the certificate holder's approved training program (Appendix E, columns I and II), no crewmember may serve on a type airplane on which he has not previously served, or in a crew position in which he has not previously served, unless he satisfactorily completes at least the number of programmed hours specified in the certificate holder's approved training program for initial flight assignment (Appendix E, column V). In conducting initial flight assignments in each type airplane—

(1) Each pilot in command must perform the duties of a pilot in command while being observed by an approved check airman.

(2) Each second in command must either perform the duties of second in command while being observed by an approved check airman, or act as observer on the flight deck.

(3) Each flight engineer must perform the duties of a flight engineer while being observed by a qualified flight engineer or an approved check airman.

(4) Each flight attendant must either perform the duties of a flight attendant while being observed by a supervisor or act as an observer.

(b) A flight attendant who is assigned to duty in more than one type aircraft and who has received sufficient ground school and practical training in each type aircraft, is required to comply with paragraph (a) (4) of this section only in the larger type aircraft to which assigned.

NOTE: The reporting and/or record-keeping requirements contained herein have been approved by the Bureau of the Budget in accordance with the Federal Reports Act of 1942.

APPENDIX E
PROGRAMMED HOURS OF TRAINING

		I Ground School					II Flight Training		III Approved Simulator		IV Procedural Trainer (a)		V Initial Flight Assignments (e)			
		PIC	2IC	NA	FA	DS	PIC	2IC	PIC	2IC	PIC	2IC	PIC	2IC	FE	FA
		FE					FE		FE		FE		FE			DS
Basic indoctrination (newly hired).....	I	40	40	40	40	40	x	x	x	x	x	x	x	x	x	x
DC-3 initial (I) and upgrade (U), C-46 recurrent (R).....	U	40	40	x	8	16	8	4	x	x	4	4	10	10	x	5
	R	x	16	x	x	x	x	4	x	x	x	4	x	10	x	x
	I	12	12	x	3	8	2.5	1.0	x	x	4	2	x	x	x	x
M 202/404 and CV 240/440.....	I	64	64	x	8	30	8	5	10(b)	10(b)	4	4	15	15	x	5
	U	x	32	x	x	x	x	5	x	10(b)	x	4	x	10	x	x
	R	16	16	x	4	8	3	1.5	10(c)	10(d)	4	2	x	x	x	x
	I	64	64	24	8	40	8	5	10(b)	10(b)	4	4	15	15	7.5	6
DC-4, L-649 and L-749.....	U	x	32	x	x	x	x	5	x	10(b)	x	4	x	15	x	x
	R	16	16	12	4	10	3	1.5	10(c)	10(d)	4	2	x	x	x	x
	I	80	80	24	10	40	10	6	15(b)	15(b)	4	4	20	20	10	5
B-37, L-1049, 1949 and DC-6/7.....	U	x	40	x	x	x	x	6	x	15(b)	x	4	x	30	x	x
	R	20	20	12	5	10	3	1.5	10(c)	10(d)	4	2	x	x	x	x
	I	80	80	x	8	40	10	6	x	x	4	4	20	20	x	5
F-37 and CV-540.....	U	x	40	x	x	x	x	6	x	x	x	4	x	20	x	x
	R	20	20	x	4	10	3	1.5	x	x	4	2	x	x	x	x
	I	80	80	x	10	40	10	6	10(b)	10(b)	4	4	25	25	x	5
Viscount and Argosy.....	U	20	20	x	x	x	x	6	x	10(b)	x	4	x	25	x	x
	R	20	20	x	5	20	3	1.5	10(c)	6(d)	4	2	x	x	x	x
	I	120	120	32	10	40	15	7	15(b)	15(b)	4	4	25	25	12.5	5
L-188, CL-44, BAC III, and Caravelle.....	U	x	60	x	x	x	x	7	x	15(b)	x	4	x	25	x	x
	R	30	30	16	5	20	3	1.5	10(c)	10(d)	4	2	x	x	x	x
	I	120	120	32	16	40	20	10	20(b)	20(b)	4	4	25	25	12.5	5
B-70, B-720, B-727, DC-8 and CV-880, CV-990.....	U	x	60	x	x	x	x	10	x	15(b)	x	4	x	15	x	x
	R	25	25	16	12	20	6	3	10(c)	10(d)	4	2	x	x	x	x

NOTES

(a) Programmed hours required to satisfy requirements of § 121.441(b)(24) when performed in other than an airplane in flight or an approved airplane simulator.

(b) Programmed hours required to reduce initial flight training by 25 percent as provided in § 121.414(c)(2).

(c) Programmed hours required when PIC proficiency checks required by § 121.441(b) are conducted in accordance with § 121.442.

(d) Programmed hours when 2IC proficiency checks are conducted in accordance with § 121.449(c). Minimum flight engineer recurrent flight training and check time to satisfy requirements of § 121.421(b).

(e) Programmed hours required to satisfy requirements of § 121.424.

[P.R. Doc. 65-5178; Filed, May 17, 1965; 8:45 a.m.]

Title 12—BANKS AND BANKING

Chapter II—Federal Reserve System

SUBCHAPTER A—BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

[Reg. F]

PART 206—SECURITIES OF MEMBER STATE BANKS

Interpretation of Definition of "Officer"

§ 206.101 Interpretation of definition of "officer".

(a) Section 206.2(o) defines the term "officer" to mean any person who occupies one or more of certain enumerated positions in a member State bank "and any other person who participates in major policy-making functions of the

bank." Among the positions so enumerated is that of "Vice President", but it is also provided that a person bearing the title of "Vice President" who does not "participate in major policy-making functions of the bank" is not an officer for the purposes of this Part 206.

(b) When this Part 206 was adopted, an accompanying description in the FEDERAL REGISTER (30 F.R. 362; January 12, 1965), stated that "an 'officer' of a bank is defined to exclude persons who, regardless of title, do not participate in major policy-making functions." This statement has resulted in some confusion as to the scope of the definition of "officer". In order to clarify the matter, the Board of Governors has made the following interpretation.

(c) All persons holding any position enumerated in § 206.2(o), except those holding a position as "Vice President", are officers for purposes of this Part 206 regardless of whether they participate in major policy-making functions. The second sentence of § 206.2(o), which provides that certain persons are not officers if they do not participate in major policy-making functions, applies only to persons with the title of "Vice President".

(15 U.S.C. 78w; interprets or applies 15 U.S.C. 78l, 78m, 78n, and 78p)

Dated at Washington, D.C., this 10th day of May 1965.

BOARD OF GOVERNORS OF THE
FEDERAL RESERVE SYSTEM,

[SEAL] MERRITT SHERMAN,
Secretary.

[P.R. Doc. 65-5175; Filed, May 17, 1965; 8:45 a.m.]

Title 9—ANIMALS AND ANIMAL PRODUCTS

Chapter III—Consumer and Marketing Service—Meat Inspection, Department of Agriculture

SUBCHAPTER A—MEAT INSPECTION REGULATIONS

PART 318—REINSPECTION AND PREPARATION OF PRODUCTS

Gamma Radiation for Treatment of Product; Redesignation

On April 22, 1965, there was published in the FEDERAL REGISTER (30 F.R. 5702) a document containing an amendment of the Meat Inspection Regulations pursuant to the authority of the Meat Inspection Act, as amended and extended (21 U.S.C. 71-96), and subsections 306 (b) and (c) of the Tariff Act of 1930, as amended (19 U.S.C. 1306 (b) and (c)), which, among other things, adds a new section to such regulations that was designated as § 318.18. Since such designation has been previously assigned to another different regulation, the new regulation set forth at 30 F.R. 5702 designated as § 318.18 is hereby redesignated as § 318.19.

This redesignation is formal in nature and makes no substantive changes, but is necessary in order to avoid duplication in regulation numbering and should be made effective as soon as possible in order to avoid confusion.

Therefore, under section 4 of the Administrative Procedure Act (5 U.S.C. 1003), it is found upon good cause that

notice and other public procedure on this redesignation are unnecessary and impracticable, and good cause is found for making the redesignation effective less than 30 days after publication in the FEDERAL REGISTER.

This redesignation shall become effective upon publication in the FEDERAL REGISTER.

(Sec. 306, 46 Stat. 689, as amended, 19 U.S.C. 1306, 34 Stat. 1264, 21 U.S.C. 89; 29 F.R. 16210, 30 F.R. 1260, 2160)

Done at Washington, D.C., this 12th day of May 1965.

R. K. SOMERS,
Acting Deputy Administrator,
Consumer Protection, Con-
sumer and Marketing Service.

[F.R. Doc. 65-5199; Filed, May 17, 1965;
8:46 a.m.]

Title 21—FOOD AND DRUGS

Chapter I—Food and Drug Administration, Department of Health, Education, and Welfare

SUBCHAPTER B—FOOD AND FOOD PRODUCTS

PART 121—FOOD ADDITIVES

Subpart C—Food Additives Permitted in Feed and Drinking Water of Animals or for the Treatment of Food Producing Animals

AMPROLIUM AND ADDITIONAL SECONDARY INGREDIENTS

The Commissioner of Food and Drugs, having evaluated the data submitted in a petition (FAP 5C1636) filed by Merck, Sharp & Dohme Research Laboratories, Division of Merck & Co., Inc., Rahway, N.J., and other relevant material, has concluded that the food additive regulations should be amended to provide for the safe use, in chicken feed, of amprolium combined with arsanilic acid and penicillin, with or without streptomycin. Therefore, pursuant to the provisions of the Federal Food, Drug, and Cosmetic Act (sec. 409(c)(1), 72 Stat. 1786; 21 U.S.C. 348(c)(1)), and under the authority delegated to the Commissioner by the Secretary of Health, Education, and Welfare (21 CFR 2.90), §§ 121.210 and 121.253 of the food additive regulations are amended as follows:

1. Section 121.210 is amended as follows:

a. Paragraph (c), is amended by adding to table 1 new items 3.2 and 3.3, by changing items 3.1 a and c as indicated, and by deleting present items 3.1 m and n and indicating them as reserved.

b. By adding thereto a new paragraph (e).

As amended, the affected portions read as follows:

§ 121.210 Amprolium.

(c) * * *

TABLE 1—AMPROLIUM IN COMPLETE CHICKEN AND TURKEY FEED

Principal ingredient	Grams per ton	Combined with—	Grams per ton	Limitations	Indications for use
3.1 Amprolium.....	***	***	***	***	***
3.2 Amprolium.....	36.3-113.5 (0.004%— 0.0125%)	Arsanilic acid.....	90 (0.01%)	For replacement chickens; as specified in item 3.1 of this table; not for laying chickens; withdraw 5 days before slaughter.	Development of active immunity to coccidiosis; growth promotion and feed efficiency; improving pigmentation.
3.3 Amprolium.....	36.3-113.5 (0.004%— 0.0125%)	Sodium arsanilate.	90 (0.01%)	For replacement chickens; as specified in item 3.1 of this table; not for laying chickens; withdraw 5 days before slaughter.	Development of active immunity to coccidiosis; growth promotion and feed efficiency; improving pigmentation.
a. 3.1 or 3.2.....	***	***	***	***	***
c. 3.1 or 3.2.....	***	***	***	***	***
m. [Reserved].....	***	***	***	As procaine penicillin plus streptomycin sulfate 14.4-50 gm. of combinations containing 16.7 percent of penicillin.	***
n. [Reserved].....	***	***	***	***	***

(e) Section 121.1022 establishes the limitation for residues of the additive in food for human consumption.

2. Section 121.253 is amended by changing item 1.3a in the table in paragraph (c) and by adding a new paragraph (e) thereto. As amended, the affected portions read as follows:

§ 121.253 Arsanilic acid.

(c) * * *

ARSANILIC ACID IN COMPLETE CHICKEN AND TURKEY FEED

Principal ingredient	Grams per ton	Combined with—	Grams per ton	Limitations	Indications for use
1.3 * * *	***	***	***	***	***
a. 1.1, 1.2, or 1.3..	***	***	***	***	***

(e) Section 121.1138 establishes the limitation for residues of the additive in food for human consumption.

Any person who will be adversely affected by the foregoing order may at any time within 30 days from the date of its publication in the FEDERAL REGISTER file with the Hearing Clerk, Department of Health, Education, and Welfare, Room 5440, 330 Independence Avenue SW., Washington, D.C., 20201, written objections thereto, preferably in quintuplicate. Objections shall show wherein the person filing will be adversely affected by the order and specify with particularity the provisions of the order deemed objectionable and the grounds for the objections.

If a hearing is requested, the objections must state the issues for the hearing. A hearing will be granted if the objections are supported by grounds legally sufficient to justify the relief sought. Objections may be accompanied by a memorandum or brief in support thereof.

Effective date. This order shall be effective on the date of its publication in the FEDERAL REGISTER.

(Sec. 409(c)(1), 72 Stat. 1786; 21 U.S.C. 348(c)(1))

Dated: May 11, 1965.

JOHN L. HARVEY,
Deputy Commissioner
of Food and Drugs.

[F.R. Doc. 65-5204; Filed, May 17, 1965;
8:47 a.m.]

Proposed Rule Making

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Food and Drug Administration

[21 CFR Part 8]

COLOR ADDITIVES

Paprika; Notice of Proposal To List for Food Use and Exempt From Certification¹

Notice is given that the Commissioner of Food and Drugs, on his own initiative, pursuant to the provisions of the Federal Food, Drug, and Cosmetic Act (sec. 706 (b) (1), (c) (2), (d), 74 Stat. 399, 402; 21 U.S.C. 376 (b) (1), (c) (2), (d)), and under the authority delegated to him by the Secretary of Health, Education, and Welfare (25 F.R. 8625), proposes the listing and exemption from certification of the color additive paprika for use in coloring foods. All interested persons are hereby invited to present written views, comments, or objections regarding this proposal, within 30 days from the date of publication of this notice in the FEDERAL REGISTER. Such comments should be submitted, preferably in quintuplicate, to the Hearing Clerk, Department of Health, Education, and Welfare, 330 Independence Avenue SW., Washington 25, D.C.

It is proposed to amend Part 8 by adding to Subpart D the following new section:

§ 8.307 Paprika.

(a) *Identity.* (1) The color additive paprika is the ground dried pod of mild capsicum (*Capsicum annuum* L.). The definition of paprika in this paragraph is for the purpose of identity as a color additive only and shall not be construed as setting forth an official standard for paprika.

(2) Color additive mixtures made with paprika may contain as diluents only those substances listed in this Subpart D as safe and suitable in color additive mixtures for coloring foods.

(b) *Specifications.* Paprika shall conform to the general specifications set forth in § 8.110 for color additives to be used in or on food.

(c) *Uses and restrictions.* Paprika may be safely used for the coloring of foods generally, in amounts consistent with good manufacturing practice, except that it may not be used to color foods for which standards of identity have been promulgated under section 401 of the act, unless the use of added color is authorized by such standards.

(d) *Labeling.* The color additive and any mixtures intended solely or in part

¹Section 8.110 referred to in this document was published in the FEDERAL REGISTER of Apr. 24, 1965 (30 F.R. 5797), in proposed regulations for general specifications for color additives.

for coloring purposes prepared therefrom shall bear, in addition to the other information required by the act, labeling in accordance with the provisions of § 8.32.

(e) *Exemption from certification.* Certification of this color additive is not necessary for the protection of the public health, and therefore batches thereof are exempt from the certification requirements of section 706(c) of the act.

Dated: May 10, 1965.

JOHN L. HARVEY,
Deputy Commissioner
of Food and Drugs.

[F.R. Doc. 65-5206; Filed, May 17, 1965;
8:47 a.m.]

[21 CFR Part 8]

COLOR ADDITIVES

Paprika Oleoresin; Notice of Proposal To List for Food Use and Exempt From Certification¹

Notice is given that the Commissioner of Food and Drugs, on his own initiative, pursuant to the provisions of the Federal Food, Drug, and Cosmetic Act (sec. 706 (b) (1), (c) (2), (d), 74 Stat. 399, 402; 21 U.S.C. 376 (b) (1), (c) (2), (d)), and under the authority delegated to him by the Secretary of Health, Education, and Welfare (25 F.R. 8625), proposes the listing and exemption from certification of the color additive paprika oleoresin for use in coloring foods. All interested persons are hereby invited to present written views, comments, or objections regarding this proposal within 30 days from the date of publication of this notice in the FEDERAL REGISTER. Such comments should be submitted, preferably in quintuplicate, to the Hearing Clerk, Department of Health, Education, and Welfare, 330 Independence Avenue SW., Washington 25, D.C.

It is proposed to amend Part 8 by adding to Subpart D the following new section:

§ 8.308 Paprika oleoresin.

(a) *Identity.* (1) The color additive paprika oleoresin is the combination of flavor and color principles obtained from paprika (*Capsicum annuum* L.) by extraction, using any one or a combination of the following solvents:

Acetone.
Ethyl alcohol.
Ethylene dichloride.
Hexane.
Isopropyl alcohol.
Methyl alcohol.
Methylene chloride.
Trichloroethylene.

The definition of paprika oleoresin in this paragraph is for the purpose of identity as a color additive only, and shall not be construed as setting forth an official standard for paprika oleoresin under section 401 of the act.

(2) Color additive mixtures made with paprika oleoresin may contain as dilu-

ents only those substances listed in this Subpart D as safe and suitable in color additive mixtures for coloring foods.

(b) *Specifications.* (1) Paprika oleoresin shall conform to the general specifications set forth in § 8.110 for color additives to be used in or on food.

(2) Paprika oleoresin shall contain no more residue of the solvents listed in paragraph (a) (1) of this section than is permitted of the corresponding solvents in spice oleoresins under applicable food additive regulations in Part 121 of this chapter.

(c) *Uses and restrictions.* Paprika oleoresin may be safely used for the coloring of foods generally, in amounts consistent with good manufacturing practice, except that it may not be used to color foods for which standards of identity have been promulgated under section 401 of the act, unless the use of added color is authorized by such standards.

(d) *Labeling.* The color additive and any mixtures intended solely or in part for coloring purposes prepared therefrom shall bear, in addition to the other information required by the act, labeling in accordance with the provisions of § 8.32.

(e) *Exemption from certification.* Certification of this color additive is not necessary for the protection of the public health, and therefore batches thereof are exempt from the certification requirements of section 706(c) of the act.

Dated: May 10, 1965.

JOHN L. HARVEY,
Deputy Commissioner
of Food and Drugs.

[F.R. Doc. 65-5207; Filed, May 17, 1965;
8:47 a.m.]

[21 CFR Part 8]

COLOR ADDITIVES

Turmeric; Notice of Proposal To List for Food Use and Exempt From Certification¹

Notice is given that the Commissioner of Food and Drugs, on his own initiative, pursuant to the provisions of the Federal Food, Drug, and Cosmetic Act (secs. 706 (b) (1), (c) (2), (d), 74 Stat. 399, 402; 21 U.S.C. 376 (b) (1), (c) (2), (d)), and under the authority delegated to him by the Secretary of Health, Education, and Welfare (25 F.R. 8625), proposes the listing and exemption from certification of the color additive turmeric for use in coloring foods. All interested persons are hereby invited to present written views, comments, or objections regarding this proposal within 30 days from the date of publication of this notice in the FEDERAL REGISTER. Such comments should be submitted, preferably in quintuplicate, to the Hearing Clerk, Department of Health, Education, and Welfare,