

## **§ 121.429 Pilots in command: Leadership and command and mentoring training.**

(a) Beginning on April 27, 2023, no certificate holder may use a pilot as pilot in command in an operation under this part unless the pilot has completed the following ground training in accordance with the certificate holder's approved training program:

(1) Leadership and command training in [§ 121.419\(c\)\(1\)](#) and mentoring training in [§ 121.419\(c\)\(2\)](#); or

(2) Leadership and command training in [§ 121.420\(b\)\(1\)](#) and mentoring training in [§ 121.420\(b\)\(2\)](#).

(b) Credit for training provided by the certificate holder:

(1) The Administrator may credit leadership and command training and mentoring training completed by the pilot, with that certificate holder, after April 27, 2017, and prior to April 27, 2020, toward all or part of the training required by [paragraph \(a\)](#) of this section.

(2) In granting credit for the training required by [paragraph \(a\)](#) of this section, the Administrator may consider training aids, devices, methods, and procedures used by the certificate holder in voluntary leadership and command and mentoring instruction.

## **§ 121.409 Training courses using flight simulation training devices.**

(a) Training courses utilizing FSTDs may be included in the certificate holder's approved training program for use as provided in this section.

(b) Except for the airline transport pilot certification training program approved to satisfy the requirements of [§ 61.156 of this chapter](#), a course of training in an FFS may be included for use as provided in [§ 121.441](#) if that course—

(1) Provides at least 4 hours of training at the pilot controls of an FFS as well as a proper briefing before and after the training.

(2) Provides training in at least the following:

(i) The procedures and maneuvers set forth in appendix F to this part; or

(ii) Line-oriented flight training (LOFT) that—

(A) Before March 12, 2019,

- (1) Utilizes a complete flight crew;
- (2) Includes at least the maneuvers and procedures (abnormal and emergency) that may be expected in line operations; and
- (3) Is representative of the flight segment appropriate to the operations being conducted by the certificate holder.

(B) Except as provided in [paragraph \(b\)\(2\)\(ii\)\(B\)\(6\)](#) of this section, beginning on March 12, 2019—

- (1) Utilizes a complete flight crew;
- (2) Includes at least the maneuvers and procedures (abnormal and emergency) that may be expected in line operations;
- (3) Includes scenario-based or maneuver-based stall prevention training before, during or after the LOFT scenario for each pilot;
- (4) Is representative of two flight segments appropriate to the operations being conducted by the certificate holder;
- (5) Provides an opportunity to demonstrate workload management and pilot monitoring skills; and
- (6) Beginning on April 27, 2023, provides an opportunity for each pilot in command to demonstrate leadership and command skills.

(3) Is given by an instructor who meets the applicable requirements of [§ 121.412](#).

(c) The programmed hours of flight training set forth in this subpart do not apply if the training program for the airplane type includes—

(1) A course of pilot training in an FFS as provided in [§ 121.424\(e\)](#); or

(2) A course of flight engineer training in an FSTD as provided in [§ 121.425\(d\)](#).

(d) Each certificate holder required to comply with [§ 121.358 of this part](#) must use an approved FFS for each airplane type in each of its pilot training courses that provides training in at least the procedures and maneuvers set forth in the certificate holder's approved low-altitude windshear flight training program. The approved low-altitude windshear flight training, if applicable, must be included in each of the pilot flight training courses prescribed in [§§ 121.409\(b\)](#), [121.418](#), [121.424](#), [121.426](#), and [121.427 of this part](#).

## **§ 121.427 Recurrent training.**

(a) Recurrent training must ensure that each crewmember or aircraft dispatcher is adequately trained and currently proficient with respect to the type airplane (including differences training, if applicable) and crewmember position involved.

(b) Recurrent ground training for crewmembers and dispatchers must include at least the following:

(1) A quiz or other review to determine the state of the crewmember's or dispatcher's knowledge with respect to the airplane and position involved.

(2) Instruction as necessary in the following:

(i) For pilots, the subjects required for ground training by [§§ 121.415\(a\)\(1\), \(3\), and \(4\)](#) and [121.419\(b\)](#);

(ii) For flight engineers, the subjects required for ground training by [§§ 121.415\(a\)\(1\), \(3\), and \(4\)](#) and [121.419\(a\)](#);

(iii) For flight attendants, the subjects required for ground training by [§§ 121.415\(a\)\(1\), \(3\), and \(4\)](#) and [121.421\(a\)](#); and

(iv) For aircraft dispatchers, the subjects required for ground training by [§§ 121.415\(a\)\(1\) and \(4\)](#) and [121.422\(a\)](#).

(3) For flight attendants and dispatchers, a competence check as required by [§§ 121.421\(b\) and 121.422\(b\)](#), respectively.

(4) For crewmembers, CRM training and for aircraft dispatchers, DRM training. For flightcrew members, CRM training or portions thereof may be accomplished during an approved FFS line-oriented flight training (LOFT) session.

(c) Recurrent ground training for crewmembers and aircraft dispatchers must consist of at least the following programmed hours of instruction in the required subjects specified in [paragraph \(b\)](#) of this section unless reduced under [§ 121.405](#):

(1) For pilots—

(i) Group I reciprocating powered airplanes, 15 hours;

(ii) Group I turbopropeller powered airplanes, 19 hours; and

(iii) Group II airplanes, 24 hours.

(2) For flight engineers—

(i) Group I, reciprocating powered airplanes, 16 hours;

(ii) Group I turbopropeller powered airplanes, 20 hours; and

(iii) Group II airplanes, 25 hours.

(3) For flight attendants—

(i) Group I reciprocating powered airplanes, 4 hours;

(ii) Group I turbopropeller powered airplanes, 5 hours; and

(iii) Group II airplanes, 12 hours.

(4) For aircraft dispatchers—

(i) Group I reciprocating powered airplanes, 8 hours;

(ii) Group I turbopropeller powered airplanes, 10 hours; and

(iii) Group II airplanes, 20 hours.

(d) Recurrent ground training for pilots serving as pilot in command:

(1) Within 36 months preceding service as pilot in command, each person must complete recurrent ground training on leadership and command and mentoring. This training is in addition to the ground training required in [paragraph \(b\)](#) of this section and the programmed hours required in [paragraph \(c\)](#) of this section. This training must include instruction and facilitated discussion on the following:

(i) Leadership and command, including instruction on flightcrew member duties under [§ 121.542](#); and

(ii) Mentoring, including techniques for instilling and reinforcing the highest standards of technical performance, airmanship, and professionalism in newly hired pilots.

(2) The requirements of paragraph (d)(1) do not apply until after a pilot has completed ground training on leadership and command and mentoring, as required by [§§ 121.419, 121.420](#) and [121.429](#), as applicable.

(e) Recurrent flight training for flightcrew members must include at least the following:

(1) For pilots—

(i) Extended envelope training as required by [§ 121.423 of this part](#); and

(ii) Flight training in an approved FFS in maneuvers and procedures set forth in the certificate holder's approved low-altitude windshear flight training program and flight

training in maneuvers and procedures set forth in [Appendix F of this part](#), or in a flight training program approved by the Administrator, except as follows—

(A) The number of programmed inflight hours is not specified; and

(B) Satisfactory completion of a proficiency check may be substituted for recurrent flight training as permitted in [§ 121.433\(c\)](#) and [\(e\) of this part](#).

(2) For flight engineers, flight training as provided by [§ 121.425\(a\)](#) except as follows—

(i) The specified number of inflight hours is not required; and

(ii) The flight check, other than the preflight inspection, may be conducted in an FSTD. The preflight inspection may be conducted in an airplane, or by using an approved pictorial means that realistically portrays the location and detail of preflight inspection items and provides for the portrayal of abnormal conditions. Satisfactory completion of an approved line-oriented flight training may be substituted for the flight check.

(f) Compliance and pilot programmed hours:

(1) Compliance with the requirements identified in [paragraph \(e\)\(1\)\(i\)](#) of this section is required no later than March 12, 2019.

(2) After March 12, 2019, recurrent programmed hours applicable to pilots as specified in [paragraph \(c\)\(1\)](#) of this section must include 30 additional minutes.

## **§ 121.426 Pilots: Upgrade flight training.**

(a) Upgrade flight training for pilots must include the following:

(1) Seat dependent maneuvers and procedures, as applicable;

(2) Duty position maneuvers and procedures, as applicable;

(3) Extended envelope training set forth in [§ 121.423](#);

(4) Maneuvers and procedures set forth in the certificate holder's low altitude windshear flight training program;

(5) Sufficient scenario-based training incorporating CRM and leadership and command skills, to ensure the pilot's proficiency as pilot in command; and

(6) Sufficient training to ensure the pilot's knowledge and skill with respect to the following:

(i) The airplane, its systems and components;

- (ii) Proper control of airspeed, configuration, direction, altitude, and attitude in accordance with the Airplane Flight Manual, the certificate holder's operations manual, checklists, or other approved material appropriate to the airplane type; and
  - (iii) Compliance with ATC, instrument procedures, or other applicable procedures.
- (b) The training required by [paragraph \(a\)](#) of this section must be performed inflight except—
- (1) That windshear maneuvers and procedures must be performed in an FFS in which the maneuvers and procedures are specifically authorized to be accomplished;
  - (2) That the extended envelope training required by [§ 121.423](#) must be performed in a Level C or higher FFS unless the Administrator has issued to the certificate holder a deviation in accordance with [§ 121.423\(e\)](#); and
  - (3) To the extent that certain other maneuvers and procedures may be performed in an FFS, an FTD, or a static airplane as permitted in [Appendix E of this part](#).
- (c) If the certificate holder's approved training program includes a course of training utilizing an FFS under [§ 121.409\(c\)](#) and [\(d\)](#), each pilot must successfully complete—
- (1) With respect to [§ 121.409\(c\)](#)—A proficiency check in the FFS or the airplane to the level of proficiency of a pilot in command in at least the maneuvers and procedures set forth in [Appendix F of this part](#) that are capable of being performed in an FFS.
  - (2) With respect to [§ 121.409\(d\)](#), training and practice in at least the maneuvers and procedures set forth in the certificate holder's approved low-altitude windshear flight training program that are capable of being performed in an FFS in which the maneuvers and procedures are specifically authorized.
- (d) Compliance dates: Beginning on April 27, 2022, upgrade flight training must satisfy the requirements of this section.

## **§ 121.420 Pilots: Upgrade ground training.**

- (a) Upgrade ground training must include instruction in at least the following subjects as applicable to the duties assigned to the pilot in command:
- (1) Seat dependent procedures, as applicable;
  - (2) Duty position procedures, as applicable; and
  - (3) Crew resource management, including decision making, authority and responsibility, and conflict resolution.

(b) In addition to the requirements in [paragraph \(a\)](#) of this section, upgrade ground training must include instruction and facilitated discussion on the following:

(1) Leadership and command, including flightcrew member duties under [§ 121.542](#); and

(2) Mentoring, including techniques for reinforcing the highest standards of technical performance, airmanship, and professional development in newly hired pilots.

(c) Compliance date: Beginning on April 27, 2022, upgrade ground training must satisfy the requirements of this section.