FEDERAL AVIATION AGENCY
BUREAU OF FLIGHT STANDARDS
WASHINGTON 25, D. C.

August 9, 1960

CIVIL AIR REGULATIONS DRAFT RELEASE NO. 60-14

SUBJECT: Crosswind and Tailwind Takeoff and Landing Limitations

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The Bureau of Flight Standards of the Federal Aviation Agency has under consideration amendments to Parts 40, 41, and 42 of the Civil Air Regulations. The reasons therefor are set forth in the explanatory statement of the attached proposal which is being published in the Federal Register as a notice of proposed rule making.

The Bureau of Flight Standards desires that all persons who will be affected by the requirements of this proposal be fully informed as to its effect upon them and is therefore circulating copies in order to afford interested persons ample opportunity to submit comments as they may desire.

Because of the large number of comments which we anticipate receiving in response to this draft release, we will be unable to acknowledge receipt of each reply. However, you may be assured that all comment will be given careful consideration.

It should be noted that comments must be submitted in duplicate to the Docket Section of the FAA, and in order to insure consideration must be received not later than October 17, 1960.

B Butterfield
for Oscar Bakke, Director
Bureau of Flight Standards

FEDERAL AVIATION AGENCY

BUREAU OF FLIGHT STANDARDS

(14 CFR Parts 40, 41, 42)

(Regulatory Docket No.475 ; Draft Release 60-14)

NOTICE OF PROPOSED RULE MAKING

Crosswind and Tailwind Takeoff and Landing Limitations

Pursuant to the authority delegated to me by the Administrator (§ 405.27, 24 F.R. 2196), notice is hereby given that the Federal Aviation Agency has under consideration a proposal to amend Parts 40, 41, and 42 of the Civil Air Regulations as hereinafter set forth.

Interested persons may participate in the making of the proposed rules by submitting such written data, views, or arguments as they may desire. Communications should be submitted in duplicate to the Docket Section of the Federal Aviation Agency, Room B-316, 1711 New York Avenue, N. W., Washington 25, D. C. All communications received by October 17, 1960 will be considered by the Administrator before taking action on the proposed rules. The proposal contained in this notice may be changed in the light of comments received. All comments submitted will be available for examination by interested persons in the Docket Section when the prescribed date for return of comments has expired.

Present Civil Air Regulations with respect to transport category airplanes do not require an air carrier to adhere to the maximum demonstrated crosswind and tailwind components as found in the Airplane Flight Manual as a limiting value for airplanes operated in air carrier service unless the demonstrated values are also included in the limitation section

of the Airplane Flight Manual.

Except for turbine-powered airplanes, the maximum tailwind component for transport category airplanes is shown in the performance section of the Airplane Flight Manual. The operating rules of the Civil Air Regulations require compliance with the performance data for takeoff and for dispatching to destination, but there is no limitation on the maximum tailwind component for the actual landing at the destination airport. For turbine-powered airplanes, the maximum tailwind component for takeoff and landing is contained in the limitation section of the Airplane Flight Manual and must be complied with.

With respect to crosswind limitations for turbine-powered and other transport category airplanes, § 4b.173 of Part 4b of the Civil Air Regulations requires the establishment of a cross component of wind velocity at which the airplane has been demonstrated to be safe to take off or land. Unless a crosswind limitation has been placed on the airplane, the crosswind component may be established at a value which is consistent with the safe handling characteristics of the airplane. Although the component is specified in the Airplane Flight Manual as a "demonstrated crosswind", the air carrier operating rules do not limit airplane operations to this component.

Even though air carriers generally treat the demonstrated tailwind and crosswind components as limiting values for takeoffs and landings, there have been several instances where airplanes were landed with tailwinds or crosswinds in excess of such values.

In order to provide a safe and uniform standard, the Civil Air Regulations should clearly set forth a requirement that the maximum demonstrated crosswind and tailwind components established by the applicant will be a limiting factor in air carrier service. Therefore, it is proposed, for airplanes certificated under the transport category rules, to limit tailwind and crosswind takeoffs and landings to those approved values contained in the Airplane Flight Manual.

With respect to large non-transport-category airplanes, it is proposed to limit the maximum tailwind component and the maximum crosswind component to an approved value which is not marginal with the handling characteristics of the airplane. Unless a greater value has been demonstrated and approved, the maximum crosswind takeoff and landing component shall be 20 knots and the maximum tailwind takeoff and landing component shall be 10 knots.

In consideration of the foregoing, it is proposed to amend Parts 40, 41, and 42 of the Civil Air Regulations as follows:

1. By adding a new § 40.95 to read as follows:

WIND ACCOUNTABILITY

§ 40.95 Wind accountability. No takeoff or landing shall be made if the reported wind velocity and direction results in a crosswind or tailwind component in excess of the maximum demonstrated crosswind and the maximum tailwind shown in the approved Airplane Flight Manual of the airplane; Provided, That for an airplane not having an approved Airplane Flight Manual the reported wind velocity shall not exceed a maximum of 20 knots crosswind

and 10 knots tailwind unless greater values are demonstrated and approved for the particular type of airplane.

2. By adding a new § 41.37 to Part 41 and a new § 42.84 to Part 42 to read the same as the proposed § 40.95.

These amendments are proposed under the authority of sections 313(a), 601, 603, 604 of the Federal Aviation Act of 1958 (72 Stat. 752, 775, 776, 778; 49 U.S.C. 1354(a), 1421, 1423, 1424).

Director,
Bureau of Flight Standards

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