4115-126

FEDERAL AVIATION AGENCY
BUREAU OF AIR TRAFFIC MANAGEMENT
WASHINGTON 25, D. C.

May 4, 1960

CIVIL AIR REGULATIONS DRAFT RELEASE NO. 60-9

SUBJECT: Positive Air Traffic Control Areas and Routes

To Pt 60

The Bureau of Air Traffic Management has under consideration an amendment to SR424B. This amendment would establish a new and additional application of the positive control concept. While the "route" concept, which has been employed along certain airways between 17,000 and 22,000 feet would be retained, these proposed rules would also provide for an application of positive control on an "area" basis.

The Agency 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 comments will be given careful consideration.

It should be noted that comments must be submitted in duplicate and in order to insure consideration must be received by the Docket Section of the Agency on or before June 24, 1960.

D. D. Thomas

Director, Bureau of Air Traffic Management

FEDERAL AVIATION AGENCY
BUREAU OF AIR TRAFFIC MANAGEMENT

[14 CFR]

[Reg. Docket No. 376 ; Draft Release 60-9]

SPECIAL CIVIL AIR REGULATION NO. SR 424-C

POSITIVE AIR TRAFFIC CONTROL AREAS
POSITIVE AIR TRAFFIC CONTROL ROUTES

(Part 60)

NOTICE OF PROPOSED RULE MAKING

Implementation of Positive Control on an Area Basis and Revision of SR424B

Pursuant to the authority delegated to me by the Administrator (§405.27 F. R. 2196), notice is hereby given that the Federal Aviation Agency has under consideration a proposal to promulgate a Special Civil Air Regulation (SR424C) to provide for the implementation of positive control on an area basis and to amend and incorporate the provisions of SR424B into this Special Civil Air Regulation.

Interested persons may participate in the making of the proposed rule 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 on or before June 24, 1960 1960, will be considered by the Administrator before taking action upon the proposed rule. The proposals contained in this notice may be changed in the light of comments received. All comments submitted will be available in the Docket Section for examination by interested persons when the prescribed date for the return of comments has expired. Because of the large number of comments anticipated in reply to this notice, we will be unable to acknowledge receipt of each reply.

In 1958, the Administrator designated certain airways between 17,000 and 22,000 feet mean sea level (m.s.l.) as positive control routes under the provisions of Special Civil Air Regulation 424. Within this airspace, all aircraft were provided positive separation regardless of weather conditions. This action also provided segregation between en route airway flights and diversified local flights and provided positive separation between en route flights.

Inauguration of civil air carrier turbojet service late in 1958, prompted the implementation of a program of radar flight following and traffic advisory service utilizing both FAA and United States Air Force long range radar facilities. This service did not provide positive control; however, it was a definite evolutionary step in that direction.

Both the positive control routes and the civil jet radar flight following and advisory programs were aimed primarily at point-to-point en route operation and represented the maximum actions which could be accomplished within the existing air traffic control capabilities and state of the art. Positive separation for both en route and diversified local operations on an area basis requires an expansion of the capacity of the air traffic control system. This expansion can be achieved through the maximum use of radar which permits the utilization of less restrictive separation standards and thus increases traffic control capacity.

These radar and associated facilities will soon be available in the Chicago and Indianapolis Air Route Traffic Control Center Areas.

Accordingly, a plan to implement and evaluate positive control on an area basis has been developed by the Agency in cooperation with users of the airspace involved.

The area selected for the initial implementation and evaluation of this concept is within the radar coverage of the Chicago, Illinois; Indianapolis, Indiana; and London, Ohio, long range radar facilities between 24,000 feet (m.s.l.) and flight level 350, inclusive. The Federal Aviation Agency will propose this area for designation as a positive control area in the Regulations of the Administrator in a separate notice of proposed rule making action. This area presents a representative mixture of all types of operations and an evaluation of positive control in this area will provide a sound basis for expansion of this concept.

Two concepts will be employed within the airspace to be designated as positive control area. First, those aircraft whose flight track generally conforms

to the point-to-point concept of navigation and maintenance of a constant flight level, will be provided individual separation from all other aircraft by the air traffic controller. Second, aircraft that conduct flight maneuvers (e.g., acrobatics, practice gunnery, test flights, etc.) which, by their nature cannot be individually separated by the air traffic controller, will be provided airspace reservations within positive control areas to conduct these operations. Whenever possible, segregation will be accomplished through application of "on the spot" reserved airspace procedures on a time basis rather than application of restricted airspace.

Flights conducted in accordance with such procedures will, at times, require a deviation from the provisions of this regulation to perform their mission. Therefore, a provision is included in this regulation whereby air traffic control may authorize such deviation in accordance with the terms and conditions of a special authorization issued to the user Agency concerned.

Every effort has been made to develop the procedures required for a program of this magnitude. However, since this program involves the control of many diversified aircraft operations not previously subject to air traffic control, the Federal Aviation Agency plans to conduct a thorough and continuing evaluation of the program. Modification of procedures and operations will be accomplished as required in close coordination with all users to insure an accurate and practical program for expansion of this concept.

Although the initial implementation of this program is anticipated in an area approximately within a 125 mile radius of the Chicago, Illinois; Indianapolis, Indiana; and London, Ohio, long range radar facilities, on or about October 15, 1960, a limited implementation of the program in a smaller area prior to this date will be proposed.

The Department of the Air Force has requested that the presently designated restricted area, R-109, be enlarged to include airspace to the east of R-109 between 24,000 feet (m.s.l.) and flight level 600, inclusive. However, designation of this additional "shelf" airspace as a restricted area would impose an additional burden on other airspace users.

Inasmuch as this area is a coincident portion of that airspace in which the proposed positive control area concept is to be applied; and since this concept would satisfy the test flight requirements of the Wright Air Development Center and, at the same time, permit maximum use by other aircraft, it is felt the public interest could best be served by implementing positive control within this area pending the capability to initiate positive control within the entire proposed Chicago, Indianapolis, and London area.

Accordingly, this proposal will permit the implementation of positive control within the R-109 "shelf" area. The Federal Aviation Agency will propose this area for designation as positive control area in the

Regulations of the Administrator in a separate notice of proposed rule making action.

In order to achieve a positive control capability, there are three basic requirements which must be met by aircraft desiring to operate in a positive control area:

1. Due to the limitations of primary radar particularly in regard to resolution of target information from certain aircraft types, the radar beacon must be used. Therefore, all aircraft must be equipped with a functioning radar beacon transponder.
2. A radar environment of air traffic control cannot be realized without instantaneous and discrete communication between the pilot and controller. Therefore, all participating aircraft must have communications equipment capable of meeting this requirement.

3. Operations conducted under visual flight rules will be prohibited from this airspace. The controller must have a flexibility of operation, irrespective of weather conditions, to achieve the volume of operations required. Therefore, all aircraft and pilots operating in the area must be capable of and certificated for flight under the instrument flight rules.

An additional purpose of this proposal is to set forth in a single document the basic regulations which will be applicable to all airspace areas and routes in which positive control will be exercised. Accordingly, this proposal has incorporated the provisions of SR424B which provide for operating rules on "positive control route segments" designated in Part 601 of the Administrator's regulations. Therefore, SR424B will be rescinded and the provisions thereof are incorporated in Paragraph 2 of this proposal.

Portions of the "positive control route segments" will underlie the proposed positive control areas. This would create a tunnel effect wherein non-positive controlled airspace (22,000 - 24,000 feet m.s.l.) would exist between positive controlled airspace. It is believed that the existence of such airspace would be undesirable for two reasons.

(i) Uncontrolled traffic would be intermingling with aircraft transiting from one positive control environment to the other.

(ii) There may be a tendency for non-participating pilots to operate in the tunnel airspace in large numbers, thereby creating a potentially hazardous traffic environment.

In view of these factors, and in consideration of this proposal, positive control route segments, which underlie positive control areas would be designated to include the altitudes from 17,000 to 24,000 feet (m.s.l.).

Designation of the positive control areas or revisions to the positive control routes wherein the provisions of this special regulation apply shall

be in accordance with normal rule making notice and public procedure.

In consideration of the foregoing, it is proposed to promulgate the following Special Civil Air Regulations:

1. Except as otherwise provided in paragraph (d), the special air traffic rules prescribed in this section shall be applicable to any operation of an aircraft in that portion of airspace, in the continental control area, which has been designated by the Administrator as a "positive control area" in Part 601 of the Administrator's Regulations (14 CFR 601):

(a) No person shall operate an aircraft within a positive control area without prior approval of air traffic control.

(b) All VFR flight activities, including VFR on top, irrespective of weather conditions, are prohibited from operating in this designated airspace.

(c) All aircraft operated within positive control areas shall:

(1) Have the instruments and equipment required for IFR operations and pilots of such aircraft shall be rated for instrument flight.

(2) Be equipped with a functioning radar beacon transponder which shall be operated to reply on such mode and/or code as may be specified by air traffic control for the area in which flight is conducted.

(3) Be equipped with radio equipment capable of providing direct pilot - controller

communications on the frequencies specified by air traffic control for the positive control area in which flight is conducted.

(d) Air traffic control may authorize a deviation from the requirements of paragraphs (b) and (c) of this section, for operations conducted in accordance with the terms and conditions of a special authorization.

2. The special air traffic rules prescribed in the following paragraphs of this section shall be applicable to any operation of an aircraft in that portion of a federal airway between the altitudes of 17,000 and 22,000 feet (m.s.l.), or 17,000 to 24,000 feet (m.s.l.) for the portion of any such airway underlying a designated positive control area, which has been designated by

the Administrator as a "positive control route segment" in Part 601 of the Administrator's Regulations (14 CFR Part 601).

(a) No person shall operate an aircraft within such designated airspace without prior approval of air traffic control.

(b) All VFR flight activities, including VFR on top, irrespective of weather conditions, are prohibited from operating in this designated airspace.

(c) All aircraft operated within this designated airspace shall have the instruments and equipment currently required for IFR operations and all pilots shall be rated for instrument flight.

SR424B is hereby rescinded on the effective date of this regulation.

This regulation is proposed under the authority of Sections 313(a) and 307 (c) of the Federal Aviation Act of 1958 (72 Stat. 752, 749; 49 U.S.C. 1354, 1348).

D. D. Thomas

Director, Bureau of Air Traffic Management

Issued in Washington, D. C., on May 3, 1960.