A D V A N C E C O P Y

UNITED STATES OF AMERICA
FEDERAL AVIATION AGENCY

WASHINGTON, D.C.

Civil Air Regulations Amendment 60-25
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PART 60—AIR TRAFFIC RULES

Regulation of Aircraft Speed

Draft Release No. 61-9, published in the FEDERAL REGISTER on May 9, 1961 (26 F.R. 4001), gave notice that the Federal Aviation Agency had under consideration a proposal to amend Part 60 of the Civil Air Regulations to prohibit the flight of arriving aircraft at airspeeds in excess of 250 knots indicated airspeed (IAS) while in the airspace below 14,500 feet mean sea level (m.s.l.) within 50 miles of the destination airport. Reasons for the proposal were set forth in Draft Release No. 61-9. In recognition of the significance of a regulatory program to govern aircraft speed, Draft Release No. 61-9A provided additional time for interested persons to study the proposal and develop their comments.

Written comment received in response to Draft Release No. 61-9 revealed both strong endorsement and strong opposition. The Aircraft Owners and Pilots Association, long on record as advocating a speed limit more stringent than the one under consideration, and the General Aviation Council supported the proposed rule, as did most of the comments from general aviation interests. The Air Line Pilots Association agreed with the general principles proposed, but tempered its endorsement with the recommendations that the area of applicability be reduced and that the ceiling of the applicable airspace be established at 10,000 feet m.s.l. Aerospace Industries Association endorsed the proposal but recommended clarification of the term "arriving aircraft." The National Business Aircraft Association also endorsed the proposal, taking the position that its advantages outweigh its disadvantages. The Air Transport Association voiced strong opposition to the proposed rule, emphasizing the economic burden that it feels would be imposed by its adoption and contending also that adoption of the rule would not necessarily increase safety. The Air Line Dispatchers Association commented that publication of the proposed rule appears to be an admission that the air traffic control system cannot cope with the control problems of the jet age.

Due to the significance of the proposal and to obtain as much additional information as possible relative to the subject, it was determined that interested persons should be provided an opportunity to elaborate orally upon their views at an informal conference in an effort to determine an approach which would meet the needs of flight safety while reducing the hardship and inconvenience insofar as possible. Accordingly, an informal conference was held on August 24, 1961, attended by representatives of most of those organizations previously commenting in writing to the Agency.

Very little additional or new argument, either pro or con, was introduced at the conference. Most of the discussion was, in substance, a reiteration of written comment previously considered. One contention was to the effect that to require aircraft to operate at speeds of 250 knots or less would frequently work to the disadvantage of the air traffic control system. While there is some validity in this point and there are undoubtedly occasions when the maintenance of a higher speed would work to the advantage of both pilot and controller, such occasions are considered to be the exception rather than the rule. To permit deviation at the discretion of the controller would shift an undesirable degree of the operational control of the aircraft from the pilot to the air traffic controller.

Some commentators stated that the proposal gave excessive latitude to military operations by permitting flight at speeds above 250 knots IAS under certain conditions. While the requirement for certain aircraft to be operated at higher speeds was not disputed, concern was expressed relative to the language of the rule, specifically with respect to the term "military normal operating procedures." This term was extracted from the flight operating manuals used by the military to describe maneuvers and operational characteristics of a particular type of aircraft and to specify standard operating practices. It is considered to be an adequate term to describe the speeds specified therein, as well as speeds prescribed for military high altitude instrument approaches and for such operations as overhead approaches and formation flights. In view of the unique operating characteristics and the operational requirements of military tactical aircraft and certain other high performance aircraft, it is considered necessary to provide for certain of those operations since such action is in the public interest by reason of the requirement for an adequate national defense.

Some comments contended that the proposal should limit the speed of departing and en route aircraft. The Agency did not at that time have, nor has it now, a solution to the problem of applicability and degree of restriction which should be applied to these two phases of flight. However, efforts will be continued in the belief that a solution can be found which will serve this purpose without imposing an unreasonable hardship upon users. A speed regulation which would apply to these two phases of flight may well be the subject of a later proposal.

It was suggested that the speed limitation be confined to high activity airports instead of the "across the board" policy as proposed. While it is true that such a limitation is more apparent when applied to areas of dense air traffic, the maneuvering of arriving aircraft in the airspace in the vicinity of an airport makes a speed limit a natural requirement since all aircraft landing at a particular airport are converging into the same general airspace. It is during this phase of flight that the pilot must also be prepared, with little or no notice, to enter a holding pattern, to turn his aircraft to a new course or, in some other way, to adjust flight operations. Obviously, reduced speed affords the pilot more time to scan, react, and avoid a potentially hazardous situation. It is the relationship of one aircraft to another, regardless of location or time of day, which creates a potentially hazardous situation. Therefore, the Agency is convinced that regulating the speed of all arriving aircraft is a sound approach to the problem.

It was contended that a new regulation would be unnecessary if § 60.18 were updated to revise the applicable airspeeds and if the size of High Density Air Traffic Zones were increased. The Agency has taken action (Amendment 60-24) to eliminate such zones and to apply communications and speed requirements to a greater number of airports. Since Amendment 60-24 is applicable solely to flight operations conducted in the immediate vicinity of certain airports, it has been concluded that additional speed limitations are required to cope with potential hazards outside these areas.

It was contended that the air traffic control system should be improved to provide unrestrictive service to high speed aircraft. The Agency does not

question the validity of this recommendation from the point of view of its proponents. The capacities and limitations of the present day traffic control system are a matter of common knowledge to all users. Existing control procedures have been devised in continuing consultation with the aviation community in the light of these capacities and limitations. Theoretical optimum would, of course, permit unrestricted speeds by all aircraft but the means of achieving this idealized state are not at hand. In the meantime, in order to emphasize safety standards and facilitate their application within the capabilities of the air traffic control service, it is necessary to impose certain restrictions on the flow of air traffic.

It was recommended that the proposal be amended so that speed reduction would be accomplished "* * * within a specified distance not less than 20 nautical miles nor more than 60 nautical miles from the airport of destination and that the points at which aircraft must reach the speed limit be depicted on aeronautical charts. * * *" The rule adopted herein specifies that aircraft must be operated at or below 250 knots when within 30 nautical miles of the destination airport but permits the pilot to begin reduction of speed at the point he considers to be best suited to current flight conditions. As a practical matter, some pilots may begin a speed reduction when within 60 nautical miles of the destination; others, however, depending on the equipment being flown, may elect to reduce speed at a greater or lesser distance. The rule is considered to be less restrictive than the recommendation and, therefore, preferable. The feasibility of depicting the area or the point where the speed regulation would apply or begin on aeronautical charts was also considered in the development of the proposal. Analysis of many possibilities indicated that to chart such areas or points would create additional "clutter" to the charts. The close proximity of airports indicated that it would be impractical to depict the specific points for any given airport. Such action is, therefore, considered inadvisable.

Considerable apprehension was expressed that adoption of speed regulations would impose a severe economic burden upon the air lines and it was stated that adoption of the proposed rule might result in an added annual operating cost to air carrier companies as high as $15,000,000. The Agency appreciates the seriousness of such a consequence; however, it must weigh all safety factors and consider the public interest as the matter of primary concern in making its decisions. It is unfortunate that the intrinsic assets of safety cannot be utilized to balance a monetary deficit. Although the Agency does not wish to penalize the nation's air transportation system, it has no alternative but to select that course which it considers necessary in the interest of safety. This responsibility and authority are exercised only after careful and deliberate judgment.

In this regard, sufficiently persuassive arguments have been presented to convince the Agency that the area in which the speed limitation is applicable should be reduced to the absolute minimum consistent with the requirements of safety. Accordingly, the area of applicability has been reduced to include that airspace below 10,000 feet m.s.l. within 30 nautical miles of the destination airport. While there are various ways whereby this reduction might be accomplished, each has inherent limitations. For example, it was suggested that the altitude of applicability should be established "above terrain" rather than in reference to "mean sea level." This treatment would result in a variable "ceiling" that would follow the contour of the earth's surface. Such a limitation would present obvious compliance difficulties in mountainous areas. While it is equally true that some of the benefits of this rule will be lost in the vicinity of airports located in mountainous areas, due to a "mean sea level" application, it appears that this loss can be countenanced without compromising the rule to an unacceptable degree. Further reduction of the economic impact may be realized from a study currently being conducted to consider the feasibility of permitting the transition of turbojet aircraft from the terminal fixes to final approach courses at altitudes in excess of 10,000 feet m.s.l. Should such procedures prove feasible, a significant reduction in the economic impact of this rule will be realized.

Concern was expressed that the proposal did not clearly indicate the time or place at which a pilot would be required to comply with the speed limitation. The phrase "arriving aircraft" has always, in an aeronautical sense, been used to connote an arrival operation as opposed to any other phase of flight. The exact time at which an aircraft becomes an "arrival aircraft" is entirely dependent upon the intentions of the pilot. The word "arriving" as used in the rule is intended to apply to a pilot operating an aircraft inbound to an airport for the purpose of conducting an actual or simulated approach regardless of whether a landing is effected.

In consideration of the foregoing, Part 60 of the Civil Air Regulations is hereby amended by adding a new section to read as follows:

§ 60.27 Aircraft speed.

A person shall not operate an arriving aircraft at an indicated airspeed in excess of 250 knots (288 m.p.h.) during flight below 10,000 feet mean sea level within 30 nautical miles of an airport where a landing is intended or where a simulated approach will be conducted unless the operating limitations or military normal operating procedures require a greater airspeed, in which case the aircraft shall not be flown in excess of such speed.

This amendment shall become effective on December 19, 1961.

(Sec. 307 of the Federal Aviation Act of 1958; 72 Stat. 749; 49 U.S.C. 1348)

Issued in Washington, D.C., on November 13, 1961.

N. E. HALABY,
Administrator.

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MANUFACTURING AND INSTALLATION BRANCH

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