UNITED STATES OF AMERICA
FEDERAL AVIATION AGENCY
AIR TRAFFIC SERVICE

(14 CFR Part 60)

(Notice 63-8 ; Docket No. 1620)

ADVANCE NOTICE OF PROPOSED RULE MAKING

Operation on and in the Vicinity of Airports Without a Control Tower

The Federal Aviation Agency is considering an amendment to § 60.18 of the Civil Air Regulations relating to the standardizing of traffic pattern flight procedures at "uncontrolled airports"—those airports at which a tower is not available to provide airport traffic control service.

Section 60.18(c) of the Civil Air Regulations at present contains provisions dealing with communication requirements, the direction of turns when landing, and compliance with established traffic patterns when departing. It appears necessary, however, to determine whether these are adequate to provide for safety without additional provisions concerning such elements as traffic pattern entry procedures, traffic pattern altitude and speed requirements, use of specific runways, crosswind operations, and avoidance of traffic patterns by en route aircraft. These present some fairly complex problems and participation by all interested persons is desired at an early stage to assist the Agency in developing such changes in the regulation as it considers necessary, in the manner most informative to interested persons.

For this purpose, the Agency invites comments and suggestions from interested persons. All communications should be in duplicate and mailed not later than May 2, 1963 to the Docket Section of the Federal Aviation Agency, Room A-103, 1711 New York Avenue NW., Washington 25, D.C. Because of the large number of comments which this notice should bring, the Agency will be unable to acknowledge their receipt, but all comments will be considered in the development of the proposed rule. All comments submitted will be available in the Docket Section for examination by interested persons at any time.

This notice is being issued pursuant to a policy, recently adopted by the Agency, concerning the issuance of "Advance Notices of Proposed Rule Making" in certain cases when it has been determined that the resources of the Agency and reasonable inquiry outside the Agency are not likely to provide a sufficient basis to identify and select all tentative or alternate courses of action upon which rule-making action might be undertaken, or when it would be helpful to invite early public participation. The subject matter of this notice involves the situation contemplated by this policy. If it is determined to proceed further, after considering the matter in the light of available information and comments received in response to this notice, a further notice of proposed rule making will be issued.

The Agency has previously prescribed regulations to standardize traffic pattern flight procedures at airports with towers providing airport traffic control service. The notice of proposed rule making preceding those regulations discussed the need for standardization at uncontrolled airports and stated that the matter would be further considered in a future proposal. Some of the comments received in response to that notice contained suggestions and comments with respect to uncontrolled airports. These have been evaluated by the Agency. Together with Agency consideration of other information, they have resulted in developing a number of items which could be considered as the elements of standard traffic pattern flight procedures. These are:

1. Traffic Pattern Components.
2. Traffic Pattern Entry Procedures.
3. Traffic Pattern Altitudes.
4. Aircraft Speed.
5. Calmwind, Crosswind, and Downwind Operations.
6. En Route Operations.
7. Straight-in Approaches.
8. Right-of-way.
9. Departure Procedures.
10. Communications.

This list, of course, is not exclusive and comments are not restricted to those items if any person believes that the list should be amended in any way.

1. *Traffic pattern components.* It is probable that any standardization would necessitate establishment of a standard traffic pattern to be used at all uncontrolled airports to which it can be adapted. Lack of standardization in this respect could so seriously impair the effectiveness of any other uniform procedures as to make them inadequate for the purposes intended. It is contemplated that a standard traffic pattern—with either left or right turns, as appropriate—would encircle the landing runway and would consist of the following:

a. Upwind leg: A flight path in the direction of landing, parallel to the landing runway, and a sufficient distance from the landing runway to permit observance of other traffic operating on the airport.

b. Crosswind leg: A flight path perpendicular to the direction of landing and upwind of the landing runway.

c. Downwind leg: A flight path opposite to the direction of landing, parallel to the landing runway, and a sufficient distance from the landing runway to permit a normal turn to the base leg and a subsequent normal turn to the final approach.

d. Base leg: A flight path perpendicular to the direction of landing and sufficiently downwind of the approach end of the landing runway to permit at least a 1,000 foot final approach after completion of a normal turn on final.

e. Final approach: A flight path in the direction of landing wherein an aircraft is in line with the landing runway and descending toward the runway threshold.

2. *Traffic pattern entry.* It has been a long established and common practice to enter traffic patterns on the upwind, downwind or crosswind leg at an angle of approximately 45°. Usage would indicate the desirability of establishing this type of entry as the uniform procedure. At the same time, the specific entry procedure may not be so necessary to safety that other entry procedures should not be permitted, particularly entries made straight-in on the upwind, downwind or crosswind leg, and this is being considered. Consideration of entry procedures necessitates also determination of the minimum extent of flight within the traffic pattern. It appears at the present time, that entry on the base leg or on the final approach leg should be prohibited. A turn of at least 180° within the traffic pattern is indi-

cated by present analysis.

3. *Traffic pattern altitudes.* Recommendations concerning traffic pattern altitudes have varied greatly. Their prescription would involve questions of providing latitude in both altitude and lateral dimension. For example, should small aircraft be permitted to operate low and close to the airport and large aircraft to operate higher and farther away? It might be desirable to have a "standard" light aircraft pattern at 600 feet with a separate circular pattern for large aircraft at 1,200 feet, since large aircraft cannot conform to a small aircraft rectangular pattern without violent maneuvers and steep banks which result in passenger discomfort and increased hazard. On the other hand, a standard altitude of 1,000 feet might be safer, since a traffic pattern which calls for slow aircraft (which are usually high wing) to fly below fast aircraft (which are usually low wing) could result in impairing the pilot's ability to see other aircraft in the pattern. It is possible with a single traffic pattern altitude that the smaller and lighter planes would normally fly a closer-in pattern than the larger and faster aircraft, thus providing a natural separation of the two kinds of traffic.

4. *Aircraft speed.* There has been considerable study of, and comment on, the subject of aircraft speed in traffic patterns and in the vicinity of uncontrolled airports. The basic question has yet to be answered conclusively, as has the question of specific speeds.

5. *Calmwind, crosswind, and downwind operations.* There have been numerous reports of incidents resulting from simultaneous operations on crossing runways, as well as from opposite direction operations on the same runway. Although the degree of hazard from such operations may vary according to location, it appears that any mixture of downwind, crosswind, and into-the-wind operations at the same airport increases the risk of collision between aircraft. It would also appear that any provision which would allow crosswind and downwind operations for training or for economic reasons would, for practical purposes, allow takeoff and landing in any direction, on any runway, at any time. It may be that landings and takeoffs should be permitted only in the direction indicated by the landing direction indicator at an airport so equipped; at other airports, landings and takeoffs should be made on or parallel to the runway most nearly aligned into the wind. Exceptions would have to be made in the interest of safety; for example, use of a longer runway should be permitted by certain aircraft due to safety considerations, even though wind direction might indicate use of a short runway.

6. *En route operations.* While segregation of en route traffic from landing and departing traffic at uncontrolled airports is undoubtedly desirable, strict avoidance of airport traffic patterns by en route aircraft would raise the minimum en route altitude for VFR flight to an unacceptable level in some areas. This disadvantage could be overcome by a "when possible" provision, but this would seriously weaken the effect of the rule. As an alternative, en route aircraft might be required to either avoid an airport traffic pattern or conform to it.

7. *Straight-in approaches.* The Agency has received many recommendations that the regulations be written to prohibit straight-in approaches at uncontrolled airports on the basis that they are hazardous and unnecessary. By circling the airport the pilot has an opportunity to sequence his aircraft with other traffic flying the pattern, to observe the field conditions, and to see and be seen by other traffic which may be approaching to land or preparing to take off. On the other hand, a straight-in approach reduces the flying time in the vicinity of an airport which is a factor contributing to safety and economy. If straight-in and pattern approaches are both permitted, an aircraft on a straight-in approach should be required to give way to other aircraft in the pattern when proper spacing and sequencing are required, and prior to starting a straight-in approach the pilot should be required to determine, either by visual means or by radio, which runway is in use.

8. *Right-of-way.* There is general agreement that en route aircraft, or aircraft entering a traffic pattern, should be required to give way to aircraft operating in the pattern. There also appears to be general agreement that an aircraft making a straight-in approach should be required to give way to aircraft in the traffic pattern and that aircraft on final approach to land, or landing, should have the right of way over aircraft operating on the surface. One additional significant problem that must be considered in a traffic pattern proposal is that of right-of-way during crosswind or no-wind operations.

9. *Departure procedures.* Generally, the Agency considers that existing regulations relating to departure procedures are adequate in that they require pilots operating from an airport to conform to the traffic pattern established for that airport. Normally, a pilot has adequate opportunity to familiarize himself with the pattern before departure. However, in developing standard traffic patterns the adequacy of existing regulations regarding departure procedures must be considered, as well as the possible changes in departure procedures that may be required by proposed changes in approach and landing procedures.

10. *Communications.* Should there be any change in communications requirements? Where there is a unicom at an uncontrolled airport, it might be used to provide a form of airport advisory service. Even though the unicom might not be manned, if a pilot approaching the airport for landing were required to call on the unicom frequency, other aircraft in the area monitoring this frequency would receive the traffic information.

In order to simplify the classification and analysis of public comments on the various issues involved, and for convenience in the preparation of these comments, it is suggested that reference be made to the foregoing subjects by number.

Issued in Washington, D.C. on February 20, 1963.

D. D. THOMAS,
Director, Air Traffic Service.

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