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ADVISORY CIRCULAR

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

SUBJECT: ATC PROCEDURES FOR RANDOM AREA NAVIGATION ROUTES

1. PURPOSE. This Advisory Circular provides guidelines and procedures for obtaining approval of random IFR area navigation routes in the U. S. National Airspace System.
2. EFFECTIVE DATE. June 15, 1973.
3. RELATED DOCUMENTS.
 - a. Airman's Information Manual.
 - b. Advisory Circular 90-32, Radar Capabilities and Limitations, dated August 15, 1967.
 - c. Advisory Circular 90-45, Approval of Area Navigation Systems for Use in the U. S. National Airspace System, dated August 18, 1969, plus Change 1, dated October 20, 1970.
 - d. Advisory Circular 90-83.2, IFR Flight Plan Route Information dated February 16, 1966.
4. DISCUSSION.
 - a. The need to determine ground station service limitations, slant range error, reception altitudes, and obstruction clearance altitudes in an operational environment precludes impromptu development of area navigation (RNAV) routes and associated airspace. Therefore, the policy that random RNAV routes would only be approved in a radar environment based on in-flight requests was basically to discourage random routings to permit the orderly introduction of RNAV into the Air Traffic Control System. Experience has shown that this philosophy has not obtained the desired results. The "ground filing prohibition" did not discourage pilots from requesting random RNAV routes, but in fact, has placed additional burden upon the air traffic control system because of the airfiling.

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- b. The Federal Aviation Administration's policy is to minimize the economic burden on all classes of users whenever possible. The use of random RNAV routes is one method which can be employed to satisfy this objective. However, a recent limited survey of RNAV traffic indicates that elimination of airfiled random RNAV routes will reduce air traffic controllers' workload and possibly increase the Air Traffic Control System's capability to accommodate more random route RNAV flight if filed on the ground. Accordingly, the policy and appropriate procedures are being revised to not only permit preflight filing of random RNAV routes but to stress its preference over airfiling.

5. CONCEPT OF OPERATION.

- a. The operational concept is to permit ATC approval of direct flight by aircraft certificated for IFR RNAV operations in the National Airspace System. Airfiled random RNAV route flight plans will continue to be accepted; however, pilots/aircraft operators are strongly urged to file such flight plans prior to departure. ATC will radar monitor each flight, but navigation on the requested routes will be the responsibility of the pilot.
- b. Factors that will be considered prior to approval of random RNAV route flight plans will include ATC's capability to provide service, anticipated volume of traffic and compatibility of the routings with existing airways, routes, traffic and procedures.
- c. Pilots of RNAV certificated aircraft have the option of filing and operating in accordance with established or designated route criteria or may file for random RNAV routes in accordance with the procedures contained in this Advisory Circular. Of course, the traffic workload may be such that random routes will not be approved, yet at the same time the ATC system may be able to handle RNAV flight operations via established or designated routes. Therefore, pilots filing random RNAV routes that nearly parallel or generally follow existing airways or routes may be cleared via the appropriate airway or route instead of via the requested random route. (This is a controller judgment and workload factor. No attempt will be made to define "nearly parallel or generally following".) Consequently, when operationally feasible, pilots are urged to file established or designated RNAV routes in lieu of random routes.

- 6. PROCEDURES. The procedures contained in this Advisory Circular are applicable only to area navigation certificated aircraft requesting random IFR routes.

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7. MISCELLANEOUS. The provisions of this Advisory Circular do not prohibit nor restrict controllers from initiating a random RNAV route clearance for RNAV certificated aircraft when improved ATC service will result from such action.

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