

ORDER

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

6300.5

12 Dec 72

EN ROUTE RADAR AND BEACON SITING PROCEDURES,
SUBJ: RESPONSIBILITIES, AND APPROVALS

1. PURPOSE. This order establishes procedures and responsibilities for the selection and approval of sites for establishment of en route radars and beacons.
2. DISTRIBUTION. This order is distributed to Washington, regions and field offices that have responsibilities for the operation of en route radars and beacons.
3. CANCELLATION. Order AF 6300.28, Discontinuance of Washington Office Review of Radar and Microwave Link Facility, dated March 14, 1962, is cancelled.
4. BACKGROUND.
 - a. The regions have had the sole responsibility for the selection and approval of sites for FAA radars which were to be established or relocated by the FAA. The siting of the ATCRBS is dependent upon the siting of the primary radar. Order 6360.4, Siting Criteria for Air Traffic Control Radar Beacon System (ATCRBS), provides further guidance for the siting of the ATCRBS antennas since experience has shown these antennas are more susceptible to the effects of the siting environment than are the primary radar antennas.
 - b. Current programs and plans provide for a number of en route radar relocations or new establishments to improve radar coverage to meet operational en route automation requirements. Problems associated with recent relocations have had a significant impact on program funding and scheduling. The Agency Review Board has emphasized that personnel managing programs must clearly understand that programs are to be accurately estimated and, once presented to the Board and approved, carried out in accordance with the guidelines established and conducted within the funds approved.
 - c. The extreme complexities involved in determining the optimum siting of these electronic equipments demand the collective attention of FAA's and industry's most talented, experienced and competent technical and operational experts, not all of which normally are to be found within any one segment of the agency.

Distribution: List W-2, F-2, Items 5 and 10; RAF-3

Initiated By: AAF-310

5. STATEMENT OF POLICY. In order to assure that selected sites meet the needs of the agency, maximum attention shall be given to the selection of a radar site. A group shall be established in the Airway Facilities Service to be the focal point for siting data. The Service will chair a group composed of regional, AAT and AAF personnel to review, analyze, and recommend site locations. The Director, Airway Facilities Service, shall be the final approving authority for radar surveys. Development of the operational requirements shall basically be a regional responsibility. The Air Traffic Service shall be the focal point for operational requirements and shall establish a group consisting of regional and headquarters personnel to review and recommend the final operational requirements. The Director of the Air Traffic Service shall be the final approving authority for operational requirements.
6. RESPONSIBILITY AND AUTHORITY. Development of operational requirements and the accomplishment of site surveys for radar and beacon equipment shall be done as follows:
 - a. The regions shall develop operational requirements including fixes, routes, and the altitudes at which these points must be covered, specifically indicating the minimum acceptable requirement for the radar. Terminal requirements should be considered when possible but not to the detriment of en route coverage. The regions will place major emphasis on interface of the projected facility with other facilities in the NAS complex.
 - b. In the event that a radar is used or planned to be used by more than one region, the operational requirement shall be jointly developed by all regions involved. The region in which the radar is located shall take the lead in this effort. In the event the radar is not used by a center in the region where the radar is located, the region where the data is used shall take the lead in developing the operational requirement. The operational requirement shall be coordinated with ADC if appropriate.
 - c. The operational requirement shall then be forwarded to the Director, Air Traffic Service. The Air Traffic Service will chair a group composed of regional and headquarters Air Traffic and Airway Facilities personnel to review the requirements submitted and recommend operational requirements based on the supporting documentation submitted. Final approval of the operational requirements shall be by the Director, Air Traffic Service. This review will be completed within 30 days of receipt by the Air Traffic Service.
 - d. Site surveys, based on the approved operational requirements, shall be part of a national program. The surveys shall be conducted according to a standard specification that stresses beacon coverage.

If at all possible, a minimum of three sites shall be investigated and data from them submitted to the Director, Airway Facilities Service. Responsibilities for accomplishing surveys as outlined herein, will be contained in separate documentation.

- e. Airway Facilities Service shall chair a group composed of regional and headquarters Air Traffic, Flight Standards, and Airway Facilities representatives to review the data obtained pertaining to sites surveyed. Based upon information furnished the group shall select for detailed survey one or more of the three sites submitted. The detailed survey will include use of mobile beacon equipment, specially equipped aircraft, and specialized test equipment that they shall have at their disposal. When deemed necessary by the group, the Transportation Systems Center may be requested to test the suitability of the preferred site using the ATCRBS simulator to assess the predicted performance and interference with other adjacent FAA and DOD interrogators.
- f. A final review group composed of representatives as described in (e) and including, if possible, at least one member that actively participated in the detailed survey shall make recommendations for submission to the Director, Airway Facilities Service, within 45 days for final site approval.
- g. Prime importance shall be placed on ATCRBS coverage at all times during the selection and approval of sites.



J. H. Shaffer
Administrator