

ORDER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

8260.25B

2/11/86

SUBJ: IMPLEMENTING EPOCH YEAR MAGNETIC VARIATION VALUES

1. PURPOSE. This order assigns responsibilities and prescribes the guidelines for accomplishing the tasks necessary for implementing and maintaining Epoch Year Magnetic Variation Values.

2. DISTRIBUTION. This order is distributed to the branch level in all regional Flight Standards, Air Traffic, Airports, and Airway Facilities Divisions; branch level in the Aviation Standards National Field Office and the Program Engineering and Maintenance Service; all Air Traffic Field Offices; Airport District Offices; Airway Facilities Field Offices; Flight Inspection Field Offices; and selected military offices.

3. CANCELLATION. Order 8260.25A, Implementing Epoch Year Magnetic Variation Values, dated May 27, 1977, is canceled.

4. BACKGROUND. National Oceanic and Atmospheric Administration is responsible for determining the magnetic variation (MV) for all areas of the United States for application to navigation charts and maps. In order to assist in stabilizing the National Airspace System, a fixed value of MV is assigned to each navigation facility. This value is applied to true directions to obtain the magnetic values for radials, courses, bearings, and headings published in instrument flight procedures. Changing values of MV are tabulated and published on a 5-year epoch basis by the National Ocean Service. Revisions to isogonic lines published on aeronautical charts are based on current Epoch Year values. Periodic updating of the MV assigned to navigation facilities is required to maintain reasonable proximity of alignment with the ever-changing magnetic field. This order provides for the systematic updating of MV of record for facilities on the basis of need in accordance with specified parameters.

5. PARTICIPATING OFFICES. The management and control of Epoch Year Magnetic Variation Values require action by the following offices:

- a. National Ocean Service (NOS).
- b. Aviation Standards National Field Office (AVN).
- c. Regional Flight Procedures Branches/Flight Inspection and Procedures (FIP) Staffs.
- d. National Flight Data Center (NFDC).
- e. Regional Airway Facilities Divisions.

Distribution: A-X(FS/AT/AS/AF)-3, A-W(VN/PM)-3, A-FAT-0 (STD), Initiated By: AVN-250
A-FAS-1 (STD), A-FAF-0 (STD), A-FFS-4 (ALL),
AAC-950 (25 COPIES).

f. Regional Airports Divisions.

g. Military organizations.

6. RESPONSIBILITIES. Offices identified below shall be responsible for accomplishing the actions indicated:

a. National Ocean Service.

(1) Publish Epoch Year isogonic lines or segments thereof on appropriate aeronautical charts.

(2) Develop and maintain an official listing of navigation facilities by geographic location at the end of each Epoch Year to indicate the currently assigned MV of record, the most recent Epoch Year's MV, and the projected MV for the next Epoch Year.

(3) Distribute copies of the aforementioned listing of navigation facilities to NFDC and Data Branch, AVN-250.

(4) Revise en route aeronautical charts to reflect revised MV assignments to navigation facilities. Revisions shall be made in accordance with notices of change to MV assignments as published in the National Flight Data Digest (NFDD).

b. Aviation Standards National Field Office.

(1) Exercise sole authority to determine and assign MV values to elements of the national airspace system.

(2) Function as focal point for all actions and information relating to application of MV to navigation aids, runways, and instrument flight procedures within its respective area of jurisdiction.

(3) Establish and maintain records to reflect the MV of record assigned to each facility and the current magnetic variation existing at the facility.

(4) From the listing of facilities and MV values provided by NOS, identify and select those facilities which meet the qualification standards for revision of MV of record in accordance with paragraph 7 of this order. Prepare a listing of these candidate facilities for the purpose of planning and implementation.

(5) Develop an overall plan for implementation of changes to MV of record for each candidate facility and for the resultant modification of instrument flight procedures.

(6) Notify NFDC of changes to assigned MV and the effective date of those changes for publication in the NFDD.

(7) Establish effective dates for instrument flight procedures based on revised MV values which will coincide with the appropriate aeronautical charting cycle. The effective date selected shall allow sufficient time for procedures processing in accordance with established schedules.

(8) Determine those offices (FIFO's, regional divisions, etc.) concerned with or having responsibility for action regarding changes in MV of record and issue to them appropriate notification, information, and/or instructions as necessary for coordination and timely implementation of plans.

(9) Amend instrument flight procedures as required, predicated on facilities undergoing a change in MV of record. A thorough survey shall be made to determine the full impact the change may have on any procedure. These shall include airways, jet routes, direct routes, air carrier off-airway routes, fixes in both high and low altitude structures, standard and special instrument approach procedures, terminal routes and fixes, minimum vector altitude charts, Standard Instrument Departures (SID's), Standard Terminal Arrival Routes (STAR's), Very High Frequency Omnidirectional Range (VOR) receiver check points, and any other application to instrument flight procedures. These amendments shall be processed and submitted to NFDC in accordance with established procedures.

c. Regional Flight Procedures Branch/FIP Staff. Function as the focal point for coordination and liaison between AVN and the regional Airports, Air Traffic, and Airway Facilities Divisions with respect to matters pertaining to change in facility or runway MV of record and its effect on instrument flight procedures.

d. National Flight Data Center. Upon notification by AVN of any change to MV of record, publish a notice of change in the NFDD to indicate the effective date of such change.

e. Regional Airway Facilities Division.

(1) Prior to taking any action relating to MV assignment, consult with regional Flight Inspection and Procedures Staff to determine the MV of record to be applied to the following:

(a) Newly installed navigation facilities.

(b) Relocated navigation facilities.

(2) The MV thus determined will be assigned to the appropriate facility with the effective date established by AVN.

* f. Military Organizations. This order has been coordinated with pertinent military organizations. Prior to taking any action relating to MV assignments, contact the Data Branch, AVN-250, to determine the MV of record to be applied to navigation facilities.

g. Regional Airports Division. Prior to establishing or revising runway designator numbers for an airport having one or more instrument approach procedures, consult with the regional Flight Procedures Branch/FIP Staff to determine the MV that will be applied to the runway bearing. Determination of

the runway designator number should be agreed to jointly by the Airports Division and Flight Procedures Branch/FIP Staff, and require a minimum of 3 months' lead time prior to remarking the runway to allow time for procedural amendments. The runway number will be revised when the existing number differs by more than 6 degrees from the magnetic alignment. The criteria for determining runway designation numbers is outlined in Advisory Circular 150/5340-1.

7. GUIDELINES. The identification and selection of facilities as candidates for revision of MV of record require careful consideration and evaluation of a number of factors. When the difference between the MV of record and the nearest future Epoch Year value of any facility is 3 degrees or more, the MV of record shall be changed to the nearest future Epoch Year value. When the difference is less than 3 degrees, the FIF0 shall consider implementing the nearest future value when workload permits. Factors to be considered are whether the facility is isolated or in proximity to one or more other facilities, whether on an airport or away from an airport, and the impact on instrument flight procedures. The following policy is established with respect to assignment of MV values to navigation facilities: *

a. General.

(1) The MV at the airport reference point (ARP) shall be designated and assigned to all facilities at that airport.

(2) Where the assigned MV of record differs from the MV shown on the obstruction chart (OC), the assigned MV of record shall be used in the development of instrument flight procedures.

(3) Runway bearing shall be assigned the same MV as the ARP.

b. VOR/VORTAC. Each facility identified as a candidate for revised MV assignments shall be analyzed by AVN to determine if facility rotation and/or redesignation of radials is required.

(1) Published radials shall be redesignated as necessary to coincide with the MV which has been assigned.

(2) At major airport terminal areas, the ARP MV of record at the designated controlling airport may be used in determining the MV applied to all facilities serving the terminal areas.



Robert L. Goodrich
Director, Aviation Standards
National Field Office