AC NO: 90-68

DATE: 10/29/75

ADVISORY CIRCULAR

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

SUBJECT: MINIMUM VECTORING ALTITUDES (MVAs)

1. PURPOSE. The purpose of this Advisory Circular is to explain why and how MVAs are established.

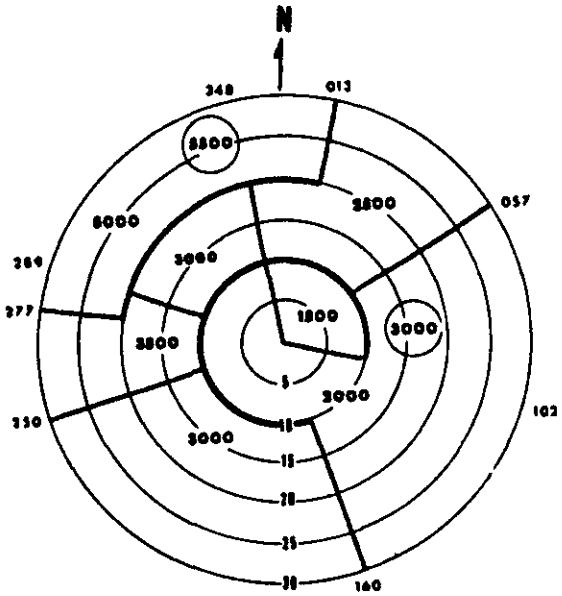
2. EXPLANATION. Minimum vectoring altitudes enable the controller to more expeditiously move traffic and provide many services to the pilot. For example, the controller is able to shorten flight paths and, thus, conserve fuel by radar vectoring aircraft on more direct routes where there are no minimum en route altitudes, only MVAs. The controller has also been more effective in assisting aircraft in distress because he can provide minimum altitude information to the pilot who is flying over unfamiliar terrain.

   Minimum vectoring altitudes are established for use by ATC when radar air traffic control is exercised. MVA charts are prepared by air traffic facilities at locations where there are numerous different minimum IFR altitudes. Each MVA chart has sectors large enough to accommodate vectoring of aircraft within the sector at the MVA. Each sector boundary is at least 3 miles from the obstruction determining the MVA. To avoid a large sector with an excessively high MVA due to an isolated prominent obstruction, the obstruction may be enclosed in a buffer area whose boundaries are at least 3 miles from the obstruction. This is done to facilitate vectoring around the obstruction.

   The minimum IFR altitude (this is also the MVA) in each sector is determined by applying the provisions of FAR 91.119(a) (1,000 feet or 2,000 feet above obstruction). Where lower MVAs are required in designated mountainous areas to achieve compatibility with terminal routes or to permit vectoring to an instrument approach procedure,

1,000 feet of obstacle clearance may be authorized in lieu of 2,000 feet over towers and/or other man-made obstructions, and 1,700 feet over terrain. Air traffic facilities will establish a higher MVA whenever the minimum IFR altitude does not provide at least 300 feet above the floor of controlled airspace.

Because of differences in the areas considered for MVA, and those applied to other minimum altitudes, and the ability to isolate specific obstacles, some MVAs may be lower than the non-radar MEAs/ MOCAs or other minimum altitudes depicted on charts for a given location. While being radar vectored, IFR altitude assignments by ATC will be at or above the MVA.



Example of MVA Chart

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