

Coordinates and Mapping

In light of the tragic events surrounding the crash of Trooper 2, the value of an understanding of the use of longitude and latitude coordinates in responding to a specific location have been brought to the forefront. The search utilities listed below are invaluable in the event the last known latitude and longitude coordinates are available for lost or missing persons, boats, aircraft, etc. The location derived from entering the latitude and longitude in a search utility should be the first location that search efforts are directed to.

Latitude is North - South (up and down). Longitude is West - East (sideways). Latitude is zero on the equator and positive in the northern hemisphere and negative in the southern hemisphere. Longitude is zero on the prime meridian, home of Greenwich Mean Time, and is positive to the east, across Europe and Asia. Longitude is negative to the west, across the Atlantic and the Americas.

The web address listed as <http://www.mapquest.com/controller/home/latlngsearch> contains a search utility that can be used to locate a point using latitude and longitude coordinates. Input latitude and longitude directly into the degrees, minutes, seconds fields or the decimal values fields. Prior to entering the degree numerals for longitude, enter a minus symbol (-) before the numerals, i.e. -76. After entering all coordinates, click on 'Get Map.' When viewing the map, you may click on either the "Street Map" tab or the "Aerial Map" tab, which are both located in the top right portion of the map view. The aerial map feature allows you to view the map from a satellite view and includes street names and topographic features. The tool located on the left side of the map allows you to zoom in or out.

The web address listed as <http://itouchmap.com/latlong.html> also contains a search utility that can be used to locate a point using latitude and longitude coordinates. In the right side portion of the screen, input latitude and longitude directly into the degrees, minutes, seconds fields or the decimal degrees fields. Prior to entering the degree numerals for longitude, enter a minus symbol (-) before the numerals, i.e. -76. After entering all coordinates, click on 'Show Point.' When viewing the map, you may click on the "Map" tab, "Satellite" tab, "Hybrid" tab, or "Terrain" tab, which are all located in the top right portion of the map view. The hybrid view allows you to view the map from a satellite view and includes street names and topographic features. The tool located on the left side of the map allows you to zoom in or out.

Latitude and longitude may be recorded in two different formats; degrees, minutes, seconds format or decimal degrees format. The person providing the latitude and longitude coordinates and the person entering the coordinates in a search utility must be certain as to whether the coordinates communicated are provided in the degrees, minutes, seconds format or the decimal degrees format. If the coordinates are entered in a search utility in the wrong format, your location will vary greatly.

To demonstrate how entering the identical numerals in the wrong format will throw off your search, enter the degrees, minutes, seconds format in a search utility as latitude 39 degrees, 16 minutes, 40 seconds / longitude -76 degrees, 37 minutes, 22 seconds, which is the point of M & T Bank (Ravens) Stadium. Perform a second search and enter the identical numerals in the decimal degrees format of latitude 39.1640 / longitude -76.3722; you will see that entering the identical numerals in two different formats will change the location from M & T Bank (Ravens) Stadium to the middle of the Chesapeake Bay.

Also note that the same location's latitude and longitude numerals differ between formats, M & T Bank (Ravens) Stadium is located at latitude 39 degrees, 16 minutes, 40 seconds / longitude -76 degrees, 37 minutes, 22 seconds, which converts in the decimal degrees format to decimal degrees

latitude 39.2778 / longitude -76.6228.

The web address listed as <http://www.fcc.gov/mb/audio/bickel/DDDMSS-decimal.html> contains a utility that permits the user to convert latitude and longitude between the degrees, minutes, seconds format and the decimal degrees format.

This information should assist members of the Department in any future searches when they are provided with latitude and longitude coordinates.

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