



# Shop Talk

## Lat and Long Basics

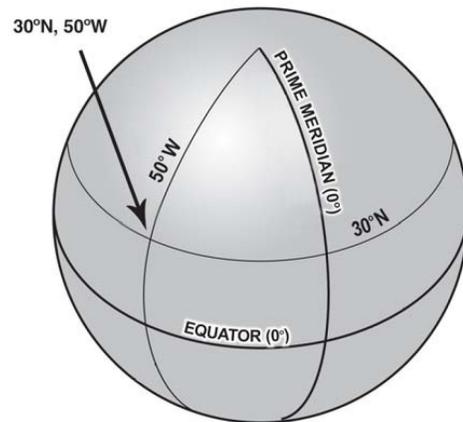
### What is Lat/Long?

#### Latitude

Latitude lines circle the world parallel with the equator, running in an easterly and westerly direction. These lines are identified by their position either north or south of the equator. The equator is 0° latitude and the North Pole (90° N) and South Pole (90° S) are both 90° latitude. All other points on earth have latitudes ranging between 0° to 90° north, or 0° to 90° south. When stating the position coordinates, latitude is always said first.

#### Longitude

Longitude lines run true north to true south—North Pole to South Pole. Longitude is the distance east or west of the prime meridian (Greenwich, England). The prime meridian is 0° longitude. All other points on earth have longitudes ranging between 0° to 180° east, and 0° to 180° west. Lines of longitude are not parallel. The closer they are to the poles, the shorter the distance between them. Principal meridian lines run in the same direction as the lines of longitude.



*The coordinates for the point where the latitude and longitude meet—as shown above—is described as: 30°N, 50°W.*

[Latitude and Longitude information from: [Basic Land Navigation-PMS 475 \(NWCG June 2007\).](#)]

If you have a subject idea for this column, please send it to us: [lessonslearnedcenter@gmail.com](mailto:lessonslearnedcenter@gmail.com)

### Can You Call In Your Position?

We should all be able to get on the radio and call in our location. But what if you have never done it—or don't do it very often? What if the first time you have to do it is an emergency? Here (below) are a few basics on how to read out Lat/Longs properly.

*Latitude and Longitude Coordinates of a Point can be Described in Different Formats*

Position Format	How It Looks	How You Say It
Degrees Decimal Minutes <i>(most aircraft)</i>	48° 36.12' 114° 08.12'	"North Four-eight degrees, three six point one two minutes." "West One-one-four degrees, zero eight point one two minutes."
Degrees Minutes Seconds <i>(many maps)</i>	48° 36' 07" 114° 08' 07"	"North Four-eight degrees, three six minutes, and zero seven seconds." "West One-one-four degrees, zero eight minutes, and zero seven seconds."