
Subject: Re: Nautical Miles to Lat/Lon Degrees
Posted by [jph](#) on Thu, 09 Sep 1999 07:00:00 GMT
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One nautical mile was defined to be one minute of arc on the earth's surface. So moving north or south, the displacement in degrees of latitude is (naut miles)/60. Since the lines of longitude converge at the poles, the the displacement east or west in degrees of longitude is given by (naut miles)/(60*cos(latitude)).

But how accurate must this be? The foregoing assumes a spherical earth, which is not quite true ...

Cheers,
Patrick Harrington

In article <37D7E259.83B9EFB6@ssec.wisc.edu>, Liam Gumley <Liam.Gumley@ssec.wisc.edu> writes:

|> David Fanning wrote:
|> > Does anyone know off-hand the formula for converting nautical
|> > miles to degrees of latitude and longitude for a given
|> > latitude and longitude? Pointers to appropriate reference
|> > materials is also appreciated.
|>
|> David, the following may prove helpful:
|>
|> According to my freshman physics text (Halliday and Resnick), 1 nautical
|> mile = 1.852 kilometers.
|>
|> For computing the distance in kilometers between a pair of lat/lons,
|> nothing beats the COMPASS routine from the ESRG library, available at
|>
|> <http://www.astro.washington.edu/deutsch-bin/idllibsrch?keyword=compass>
|>
|> Cheers,
|> Liam.
|>
|> --
|> Liam E. Gumley
|> Space Science and Engineering Center, UW-Madison
|> <http://cimss.ssec.wisc.edu/~gumley>
