Subject: Re: Nautical Miles to Lat/Lon Degrees
Posted by thompson on Thu, 09 Sep 1999 07:00:00 GMT
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Struan Gray <struan.gray@sljus.lu.se> writes:

> David Fanning, davidf@dfanning.com writes:

>> 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.

> If I remember correctly, one nautical mile is defined as one
> minute of latitude at the equator. My data book (Kaye and Laby
> 14th Ed.) says one n.m. equals 1.852 km.

> Struan

Here's a pretty authoritative source, which gives 1 n.m = exactly 1.852 km.

http://physics.nist.gov/cuu/Units/outside.html

and also

http://ts.nist.gov/ts/htdocs/230/235/appxc/$temp.htm

which includes the following notation

> The international nautical mile of 1 852 meters (6 076.115 49...feet) was adopted effective July 1, 1954, for use in the United States. The value formerly used in the United States was 6 080.20 feet = 1 nautical (geographical or sea) mile.

Note, by the way, that this is very close one minute of latitude at the equator if one assumes a circumference of exactly 40000 kilometers. In fact, the original definition of a meter was one ten-millionth of the distance from the equator to the North Pole along a meridian passing through Dunkirk and Barcelona, i.e. a quarter circumference of exactly 10000 kilometers.

William Thompson