

Re: bearing calculation off of your heading

Re: bearing calculation off of your heading

Source: <http://sci.tech-archive.net/Archive/sci.geo.satellite-nav/2007-02/msg00220.html>

- *From:* "Thomas Magma" <somewhere@xxxxxxxxxxxxxxxxxxxxx>
 - *Date:* Wed, 14 Feb 2007 16:45:13 GMT
-

Try: Aviation [Navigation] Formulary V1.43 by Ed Williams
<http://williams.best.vwh.net/avform.htm>

I got the below algorithm from Ask Dr.Math that is based on Ed Williams website. It's titled 'Bearing Between Two Points'.

<http://mathforum.org/library/drmath/view/55417.html>

```
dlat = lat2 - lat1
dlon = lon2 - lon1
y = sin(lon2-lon1)*cos(lat2)
x = cos(lat1)*sin(lat2)-sin(lat1)*cos(lat2)*cos(lon2-lon1)
if y > 0 then
if x > 0 then tc1 = arctan(y/x)
if x < 0 then tc1 = 180 - arctan(-y/x)
if x = 0 then tc1 = 90
if y < 0 then
if x > 0 then tc1 = -arctan(-y/x)
if x < 0 then tc1 = arctan(y/x)-180
if x = 0 then tc1 = 270
if y = 0 then
if x > 0 then tc1 = 0
if x < 0 then tc1 = 180
if x = 0 then [the 2 points are the same]
```

It looks like a looking algorithm but I don't understand how you can get an angle between two static points. I'm trying to figure out the angle between a point and the direction of travel of another point. The above formula does not take into consideration the direction of travel.

Any comments.

Thomas

.