

## RADAR PROTOCOLS 5.3 Excel Equations for WinHorizon Output Processing

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## 5.3 Excel Equations for WinHorizon Output Processing

**Delta X**=(Target Distance from ship km\*1000m/1km)\*Sin(Radians(Bearing from ship)) In Excel: **Delta X** =(**B9\*1000**)\*SIN(RADIANS(**C9**))

Provided that all the columns represent the same as above formula where:

B9= Cell address for Target Distance (Km)

C9= Cell address for Bearing from ship (Degrees)

**Delta Y**=(Target Distance from ship km\*1000m/1km)\*Cos(Radians(Bearing from ship))

In Excel: Delta Y = (B9\*1000)\*COS(RADIANS(C9))

**X**=Radar UTME+DeltaX

In Excel: **X=ROUND**((**M9+**(**B9\*1000**)\***SIN**(**RADIANS**(**C9**))),**0**)

The "Round" is not necessary to having the right coordinate, but without it there would be a large amount of unneeded accuracy (decimal places)

Y=Radar UTMN+DeltaY

In Excel:  $Y=ROUND((N9+(B9*1000)*COS(RADIANS(C9))),0) \setminus$ 

2D Calculation: UTMN and UTME for Radar Return

