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Magnetic Field Calculators

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Magnetic Declination Estimated Value

Declination is calculated using the most recent [World Magnetic Model \(WMM\)](#), or the [International Geomagnetic Reference Field \(IGRF\)](#) model. For 1590 to 1900 the calculator is based on the [gufm1](#) model. A smooth transition from gufm1 to IGRF was imposed from 1890 to 1900. Declination results are typically accurate to 30 minutes of arc, but environmental factors can cause magnetic field disturbances. The calculator provides an easy way for you to get results in HTML, XML, or CSV programmatically (API). For more information click the information button above.

Calculate Declination

Latitude:	<input type="text" value="41.565640"/>	<input type="radio"/>	S	<input checked="" type="radio"/>	N
Longitude:	<input type="text" value="1.717072"/>	<input type="radio"/>	W	<input checked="" type="radio"/>	E
Model:	<input checked="" type="radio"/> WMM (2014-2019) <input type="radio"/> IGRF (1590-2019)				
Date:	Year <input type="text" value="2018"/> Month <input type="text" value="8"/> Day <input type="text" value="16"/>				
Result format:	<input checked="" type="radio"/> HTML <input type="radio"/> XML <input type="radio"/> CSV <input type="radio"/> PDF				
<input type="button" value="Calculate"/>					

Lookup Latitude / Longitude

Either enter a zip code, select a country/city, or [search for an address at USGS Earth Explorer](#).

U.S. Zip Code:	<input type="text"/>	- OR -		
Country:	<input type="text" value="-Choose a country-"/>			
City:	<input type="text" value="-Choose a city-"/>			
<input type="button" value="Get & Add Lat / Lon"/>				

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Questions: geomag.models@noaa.gov

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Declination [close](#)

Model Used:	WMM2015
Latitude:	41.565640° N i
Longitude:	1.717072° E
Date	Declination
2018-08-16	0.80° E ± 0.32° changing by 0.11° E per year

