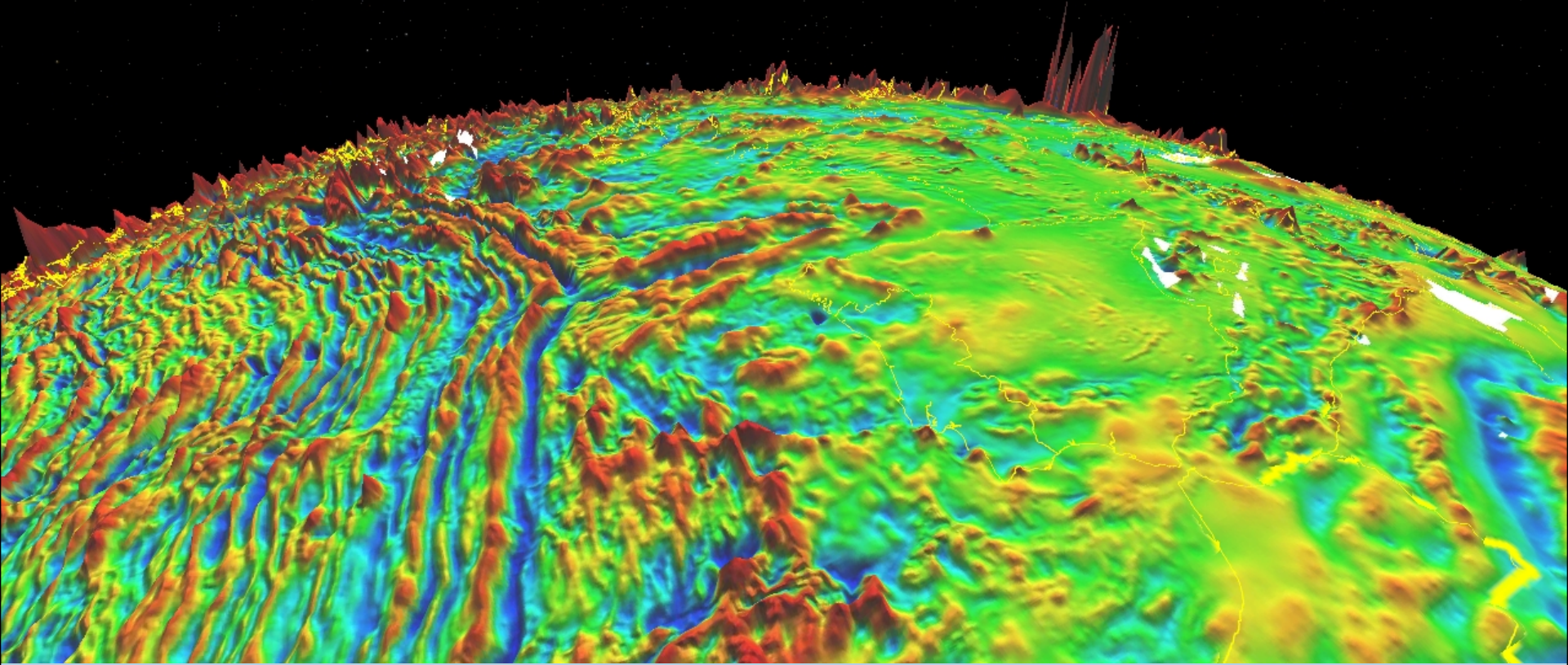


Earth Magnetic Anomaly Grid (EMAG2-v3) public map API announcement



Manoj Nair (manoj.c.nair@noaa.gov) NCEI/Univ. of
Colorado



Earth Magnetic Anomaly Grid (EMAG2v3)

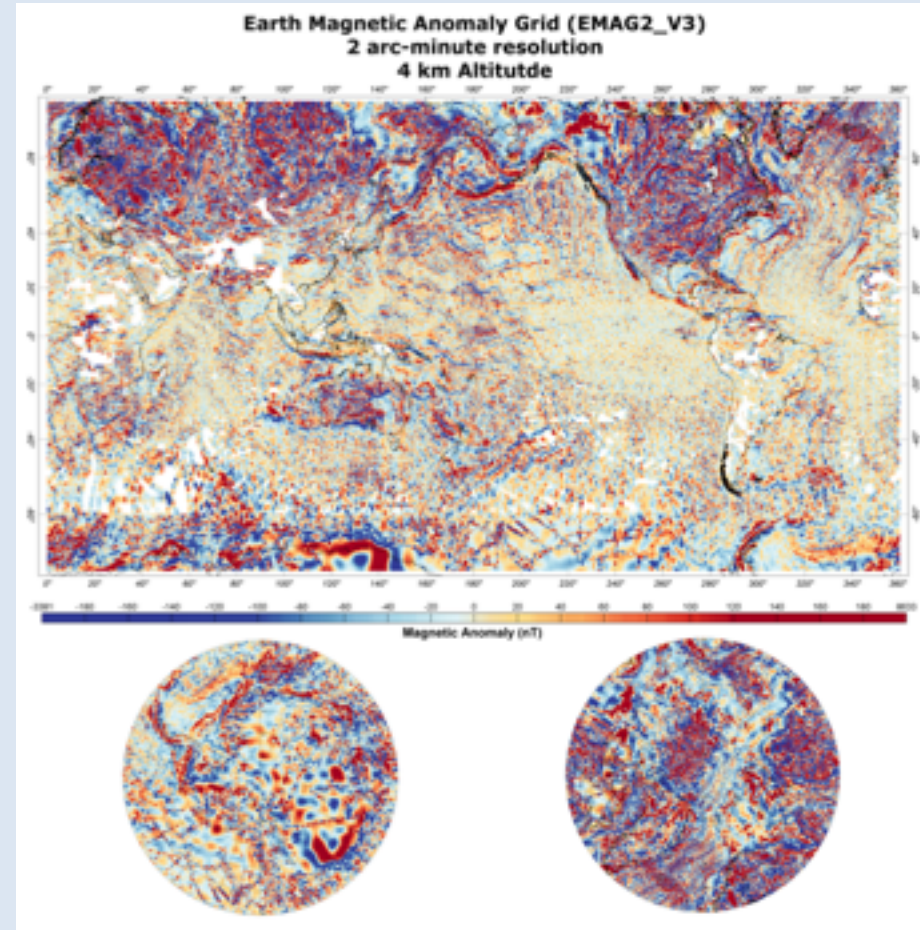
Largest, open compilation of magnetic survey data

Marine and airborne tracklines surveys

Precompiled grids over continental areas

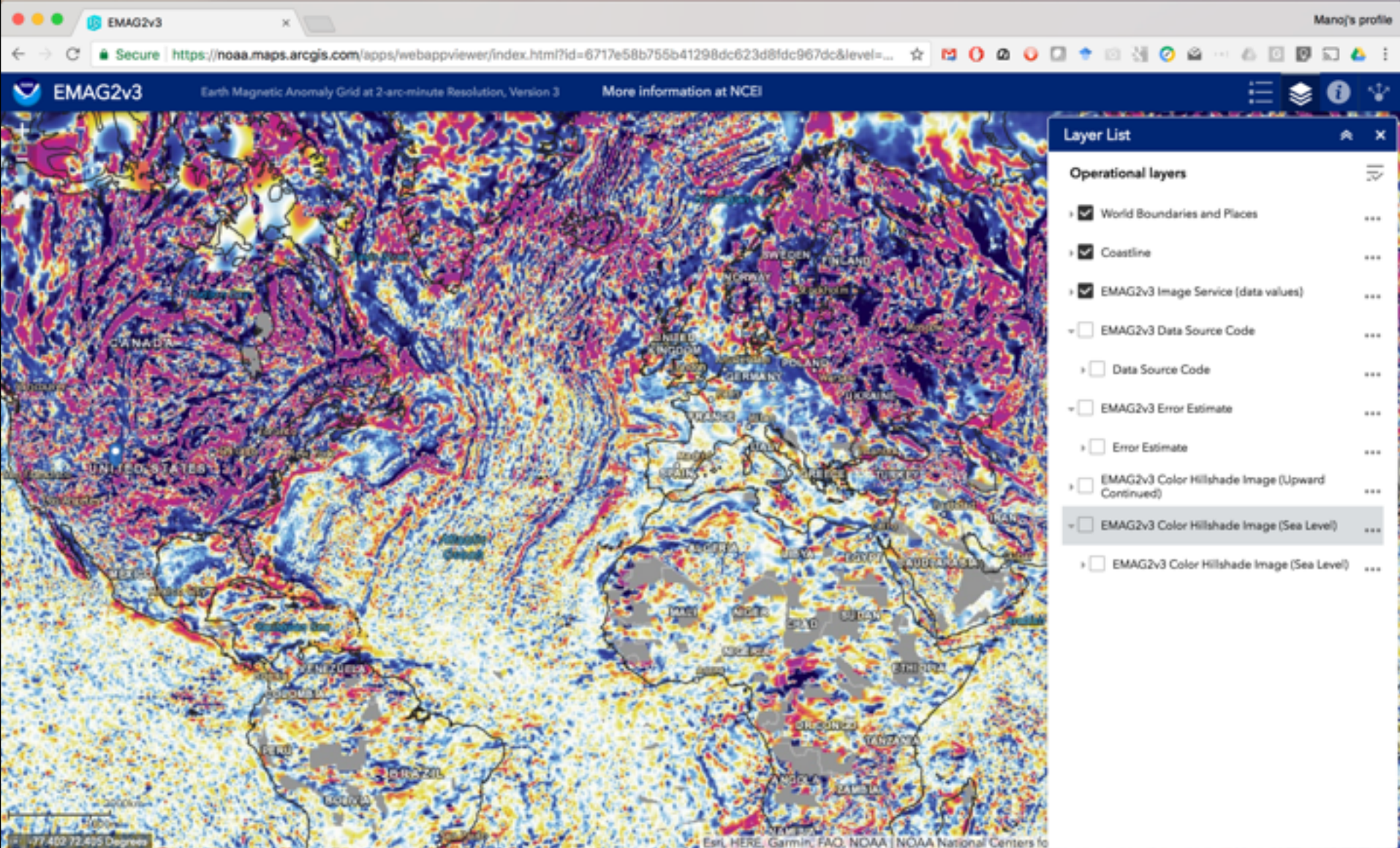
Satellite derived models

<https://www.ngdc.noaa.gov/geomag/emag2.html>



Meyer, B., Chulliat, A., & Saltus, R. (2017). Derivation and error analysis of the earth magnetic anomaly grid at 2 arc min resolution version 3 (EMAG2v3). *Geochemistry, Geophysics, Geosystems*, 18, 4522–4537. <https://doi.org/10.1002/2017GC007280>

EMAG2v3 web map service



<https://www.ngdc.noaa.gov/geomag/emag2.html>

Map API for software integration

Base URL:

<https://noaa.maps.arcgis.com/apps/webappviewer/index.html?id=6717e58b755b41298dc623d8fdc967dc>

Longitude and latitude coding : marker=-105,40

Zoom: level=8

	Total Field	Horizontal	North	East	Vertical	Declination	Inclination
Values	52,101 nT	20,915 nT	20,692 nT	3043 nT	47,719 nT	8.33°	66.33°
Change/year	-118.7 nT	-6.9 nT	-2.3 nT	-32.2 nT	-126.6 nT	-0.09°	-0.05°
Uncertainties	106.6 nT	143.1 nT	142.9 nT	129.7 nT	114.5 nT	0.35°	0.16°

	Latitude	Longitude	True-Magnetic	True-Grid	Grid-Magnetic	Grid-True
UTM Related						

Example:

<https://noaa.maps.arcgis.com/apps/webappviewer/index.html?id=6717e58b755b41298dc623d8fdc967dc&level=8&marker=-105,40>

Map API for data extraction

Example API call

```
https://gis.ngdc.noaa.gov/arcgis/rest/services/EMAG2v3/ImageServer/getSamples?geometryType=esriGeometryPoint&geometry={\"x\":%20-105,%20\"y\":%2040,%20\"spatialReference\":{\"wkid\":4326}}
```

This returns the values in html or JSON format

Questions? manoj.c.nair@noaa.gov

ArcGIS REST Services Directory

[Home](#) > [services](#) > [EMAG2v3 \(ImageServer\)](#) > [getSamples](#)

Get Samples: (EMAG2v3)

Geometry:	<input -105,="" 40,="" 4326}}"="" \"spatialreference\":="" \"y\":="" type="text" value="{\" x\":="" {\"wkid\":=""/>
Geometry Type:	<input type="text" value="Point"/>
Sample Distance:	<input type="text"/>
Sample Count:	<input type="text"/>
Mosaic Rule:	<input type="text"/>
Pixel Size:	<input type="text"/>
Return First Value Only:	<input checked="" type="radio"/> True <input type="radio"/> False
Format:	<input type="text" value="HTML"/>
<input type="button" value="Get Samples (GET)"/> <input type="button" value="Get Samples (POST)"/>	