

2020 Feb 27

Viewing ESRI Basemaps in Google Earth Web and Pro

Did you know you can view/use ESRI basemaps in Google Earth Web and Pro? I had forgotten about ESRI's KML/KMZ map service capabilities until someone asked me if it was possible to use/view USGS topo maps in Google Earth. Many people are familiar with Google Earth and want to have other basemap options to use. This is a short post on how to bring in ESRI basemaps in Google Earth Pro (desktop) and Google Earth Web.

I'm using Google Earth Pro version 7.3.2.5776 on my laptop. The Google Earth Web is of course the browser version and works best in Chrome. Google Earth Web also works with Firefox (v. 73.0.1) and the new Microsoft Edge browser (released Jan. 2020) but not the older Edge Legacy browser. If you are using Google Earth Pro then I assume that you already have it installed on your machine.

Go to ESRI Basemap REST Services Page

<https://services.arcgisonline.com/arcgis/rest/services>

Here you'll see a list of available map services. Click on a map service of interest - it will open in a new tab. Then click on ArcGIS Earth option to download/save the kmz file.

Folder: /

Current Version: 10.6

View Footprints In: [ArcGIS Online Map Viewer](#)

Folders:

- [Canvas](#)
- [Elevation](#)
- [Ocean](#)
- [Polar](#)
- [Reference](#)
- [Specialty](#)
- [WorldElevation3D](#)

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Click on a map service -
it will open a new tab

Services:

- [NatGeo World Map](#) (MapServer)
- [USA Topo Maps](#) (MapServer)
- [World Imagery](#) (MapServer)
- [World Physical Map](#) (MapServer)
- [World Shaded Relief](#) (MapServer)
- [World Street Map](#) (MapServer)
- [World Terrain Base](#) (MapServer)
- [World Topo Map](#) (MapServer)

Here I'm looking at the USA_Topo_Maps Map Server Service. If you look further down the page, you'll see that there an option to Generate KML - I find this option to not produce very good resolution when used - at least not with these map services. So I recommend using the ArcGIS Earth option. To find out more about about KML output and operations from ArcGIS REST API, see this link [here](#).

ArcGIS REST Services Directory[Home](#) > [services](#) > [USA_Topo_Maps \(MapServer\)](#)[JSON](#) | [SOAP](#) | [WMTS](#)Click ArcGIS Earth
then save the kmz file[Help](#) | [API Refere](#)**USA_Topo_Maps (MapServer)****View In:** [ArcGIS JavaScript](#) [ArcGIS Online Map Viewer](#) [ArcGIS Earth](#) [ArcMap](#) [ArcGIS Explorer](#)**View Footprint In:** [ArcGIS Online Map Viewer](#)

Service Description: This map presents land cover imagery for the world and detailed topographic maps for the United States. The map includes the National Park Service (NPS) Natural Earth physical map at 1.24km per pixel the world at small scales, i-cubed eTOPO 1:250,000-scale maps for the contiguous United States at medium scale and National Geographic TOPO! 1:100,000 and 1:24,000-scale maps (1:250,000 and 1:63,000 in Alaska) for the United States at large scales. The TOPO! maps are seamless, scanned images of United States Geological Survey (USGS) paper topographic maps. For more information on this map, including the terms of use, visit us [online](#).

Map Name: Layers[Legend](#)[All Layers and Tables](#)**Layers:**

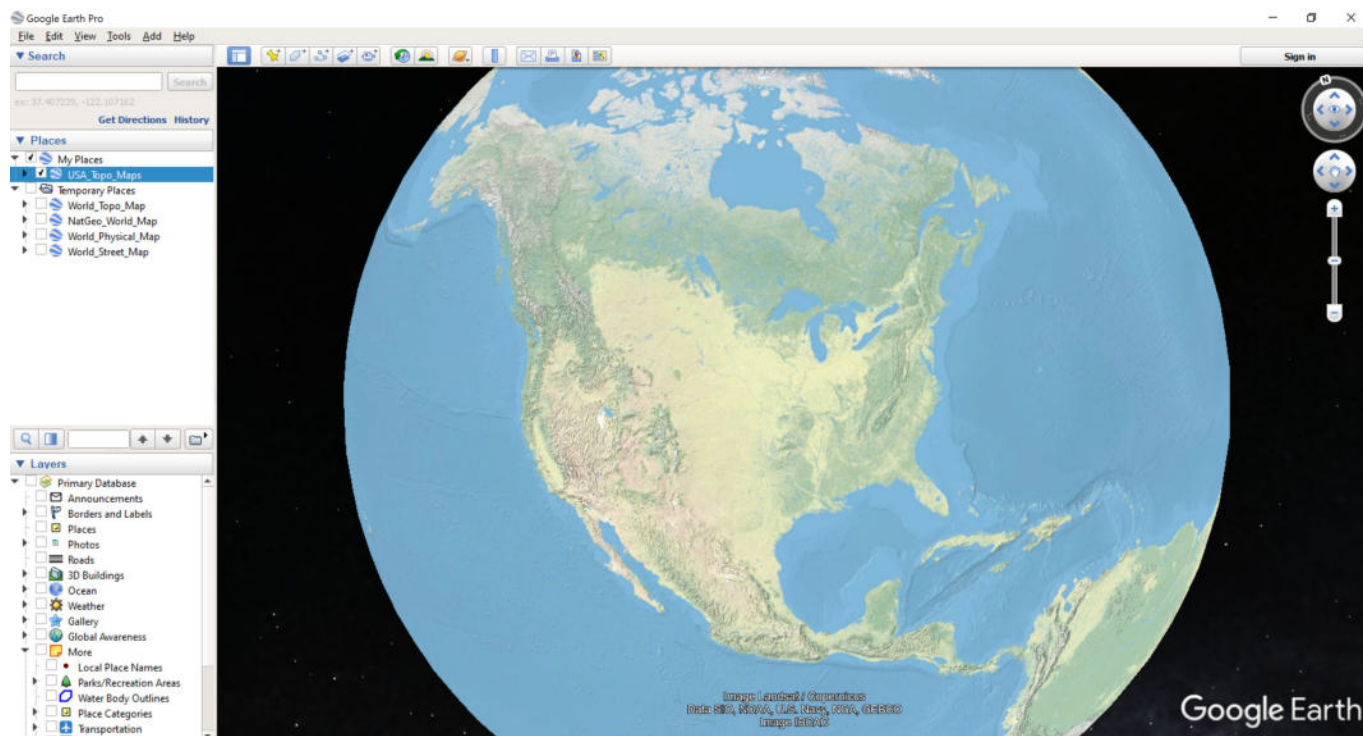
- [USA_Topo_Maps](#) (0)

Child Resources: [Info](#)**Supported Operations:** [Export Map](#) [Return Updates](#) [Generate KML](#)At bottom of page: Generate
KML - I find resolution not great
using this option

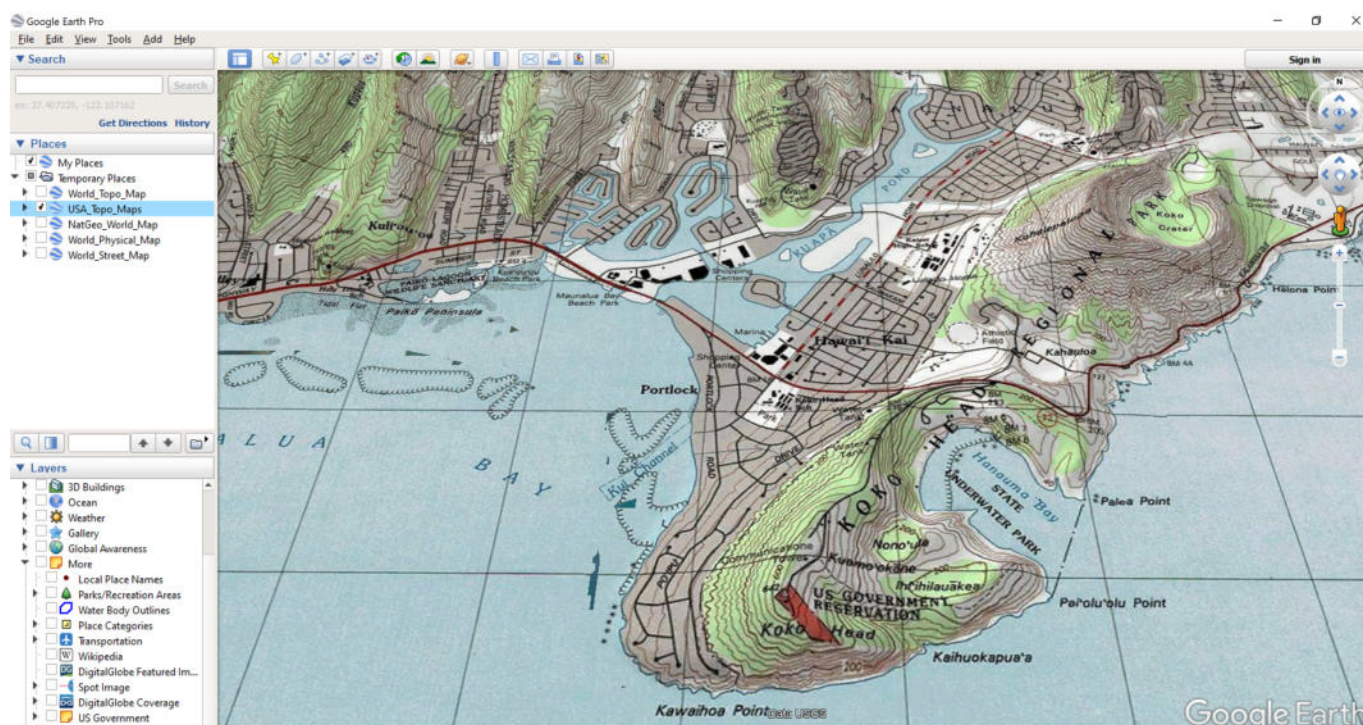
ESRI KMZ Basemaps in Google Earth Pro

After saving the KMZ file, double click on it to open it in Google Earth Pro. In GE Pro it will add the MKZ to your temporary places. If you want to save the KMZ file to “My Places” then right click on the KMZ file and Save to”My Places”.

Here’s an example of what it looks like in GE Pro.



Below is a snapshot of the USA_Topo_Maps KMZ as seen in GE Pro. The resolution looks great.

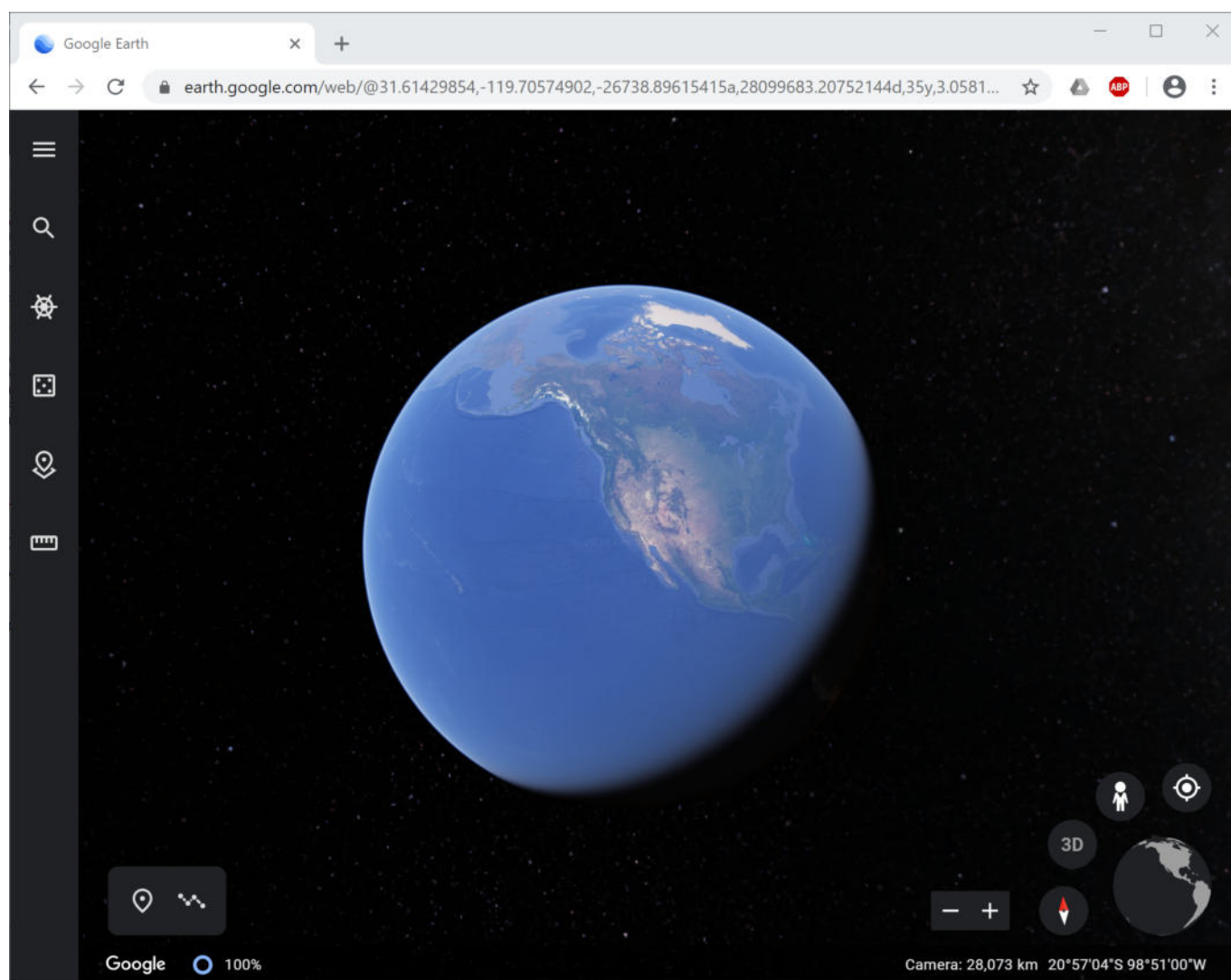


ESRI KMZ Basemaps in Google Earth Web

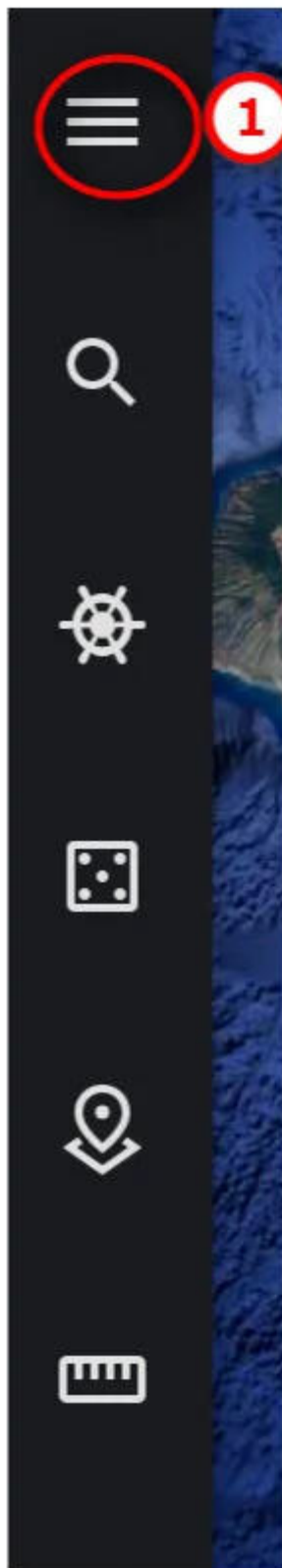
For Google Earth Web, you don't have to download anything. Just type in the following URL into the browser of your choice. Remember, that it works best in Chrome, but you can also use Firefox and the new Microsoft Edge (Canary).

Google Earth Web: <https://earth.google.com/web/>

You should see something like this. I haven't had the chance to try out all the cool things you can do, but I really like the Google Earth Web version.



In Google Earth Web, you have to set up some options first before you can use/view the ESRI KMZ files. In the left hand panel, click the Menu button then go to Settings Options.



Google Earth

[SIGN IN](#)



Search



Voyager



Projects



Map Style



Photos



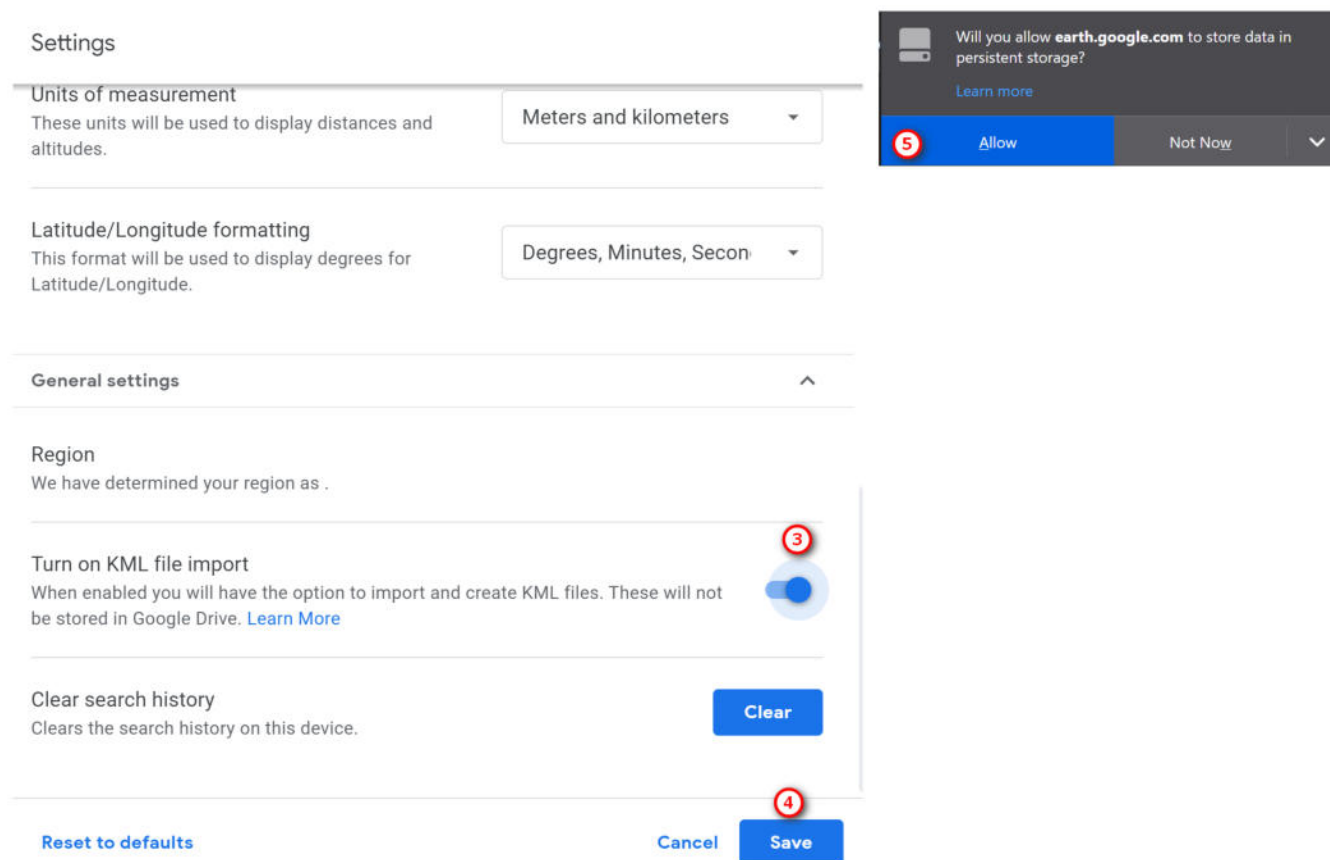
Settings

2

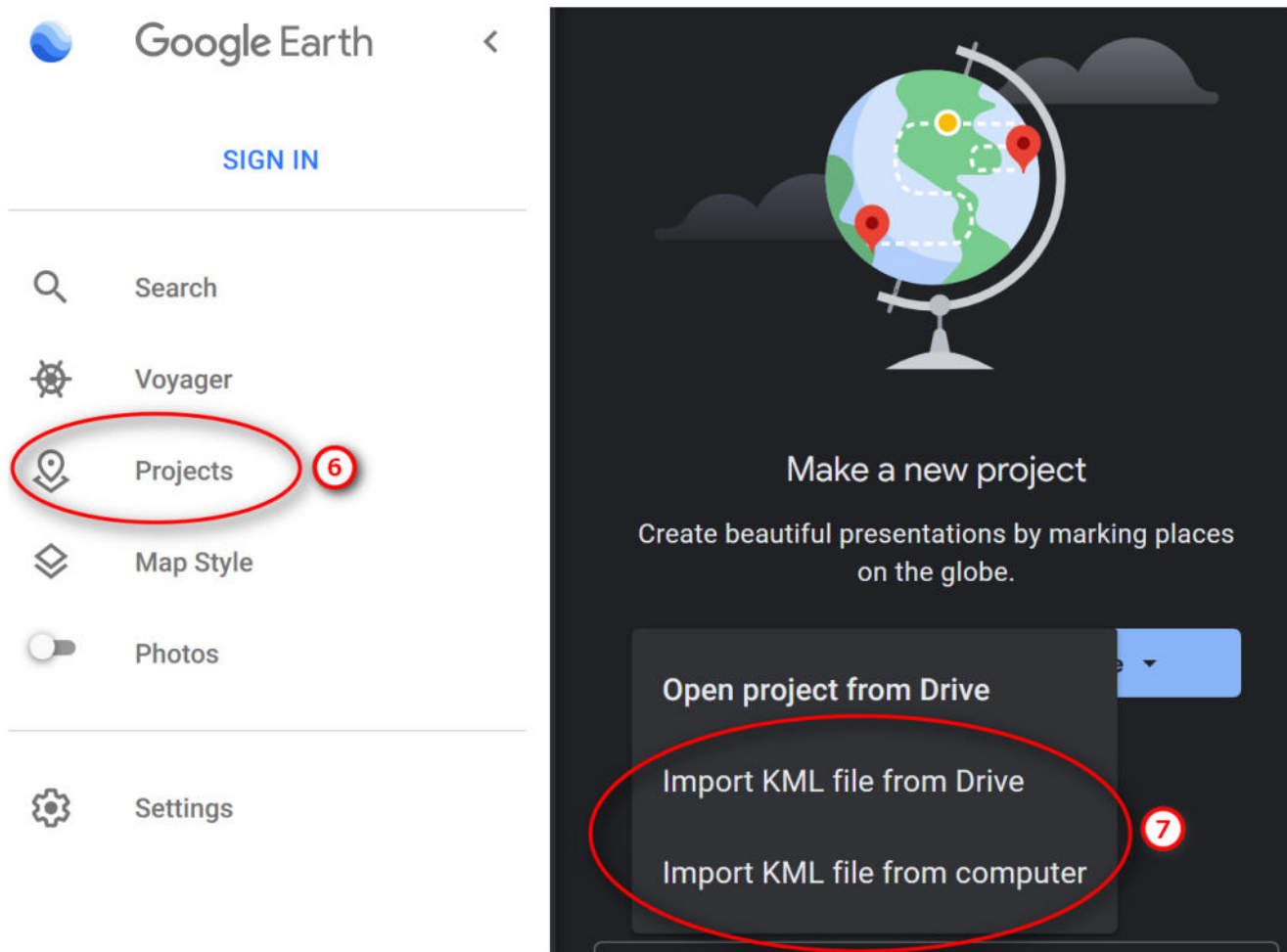


Feedback

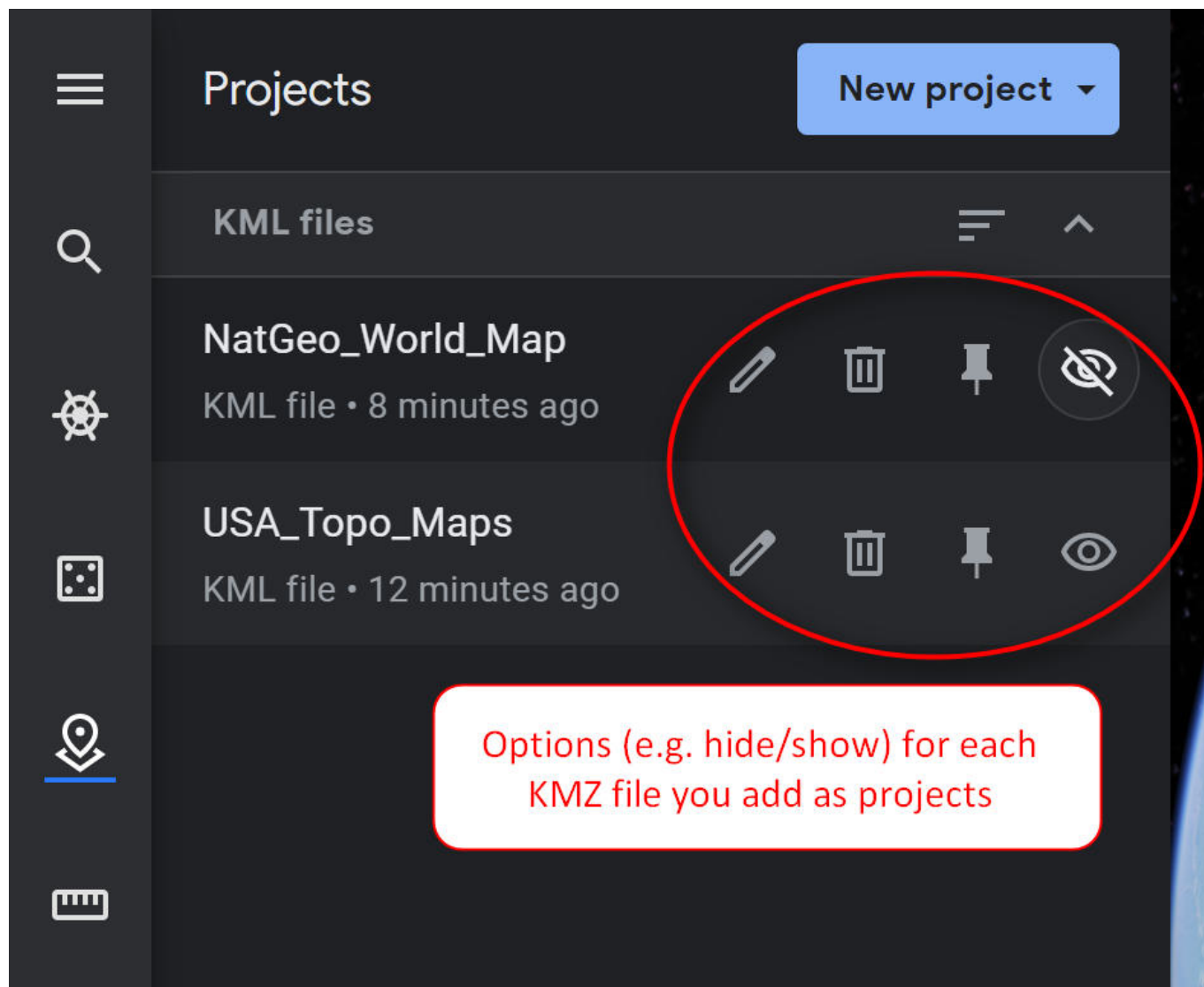
In the Settings options, switch on the option to Turn on KML File Import then Save the settings. You'll get a pop up asking if you will allow earth.google.com to store data in persistent storage? — Click Allow.



Back in the Menu, go to Projects. Note you can also access Projects using the Projects button in the main menu panel. In the Projects panel, click the Open button and select one of the Import option based on where you saved the ESRI KMZ files you downloaded.



Here are two example of my ESRI basemap KMZ files. Note there are some display options available for the KMZ files.



There are also some map styling options you can set as well (under Map Styles when you click Menu button).





Map Style



Clean

No borders, labels, places or roads.



Exploration

Borders, labels, places and roads.



Everything

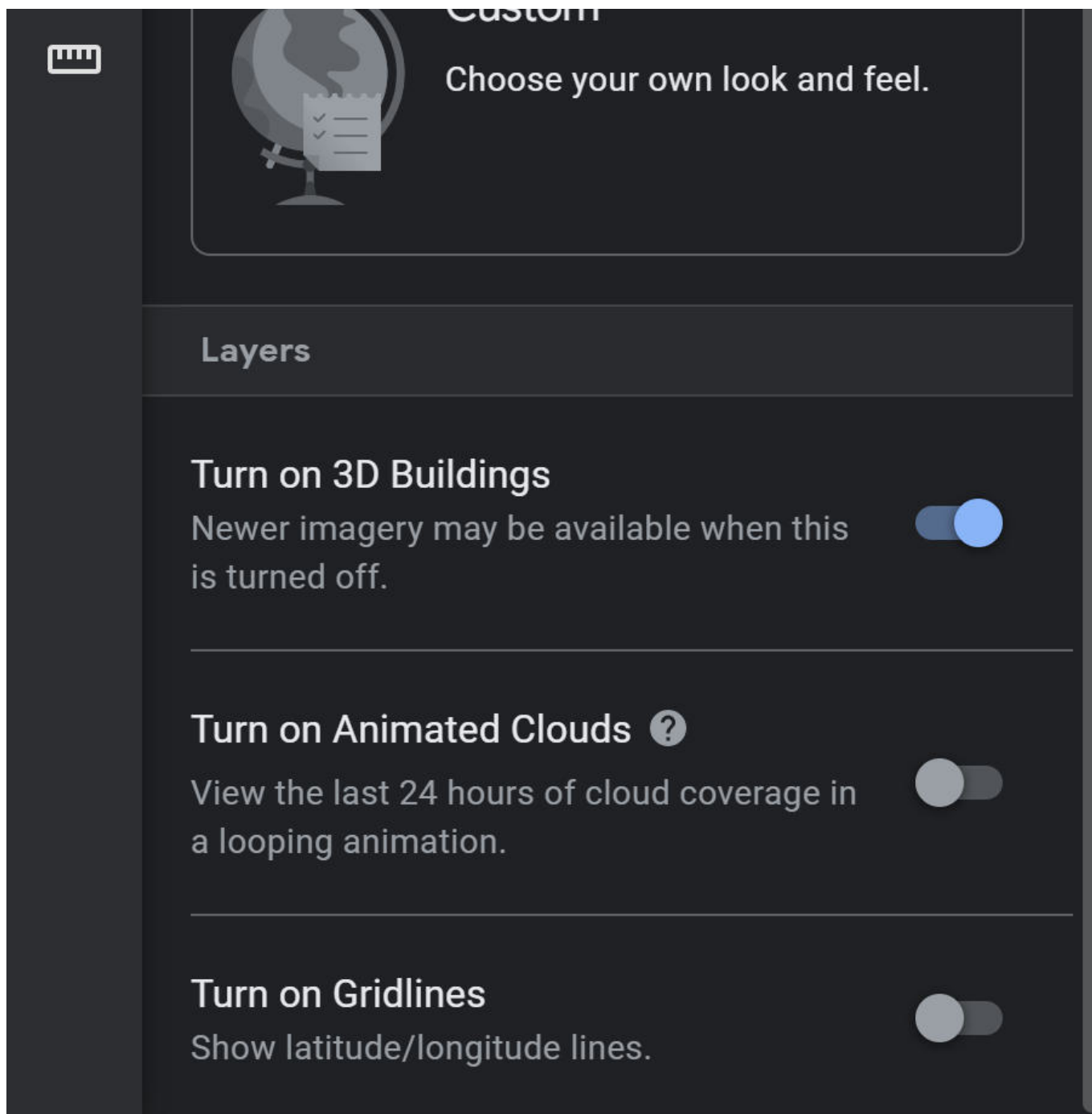


Everything

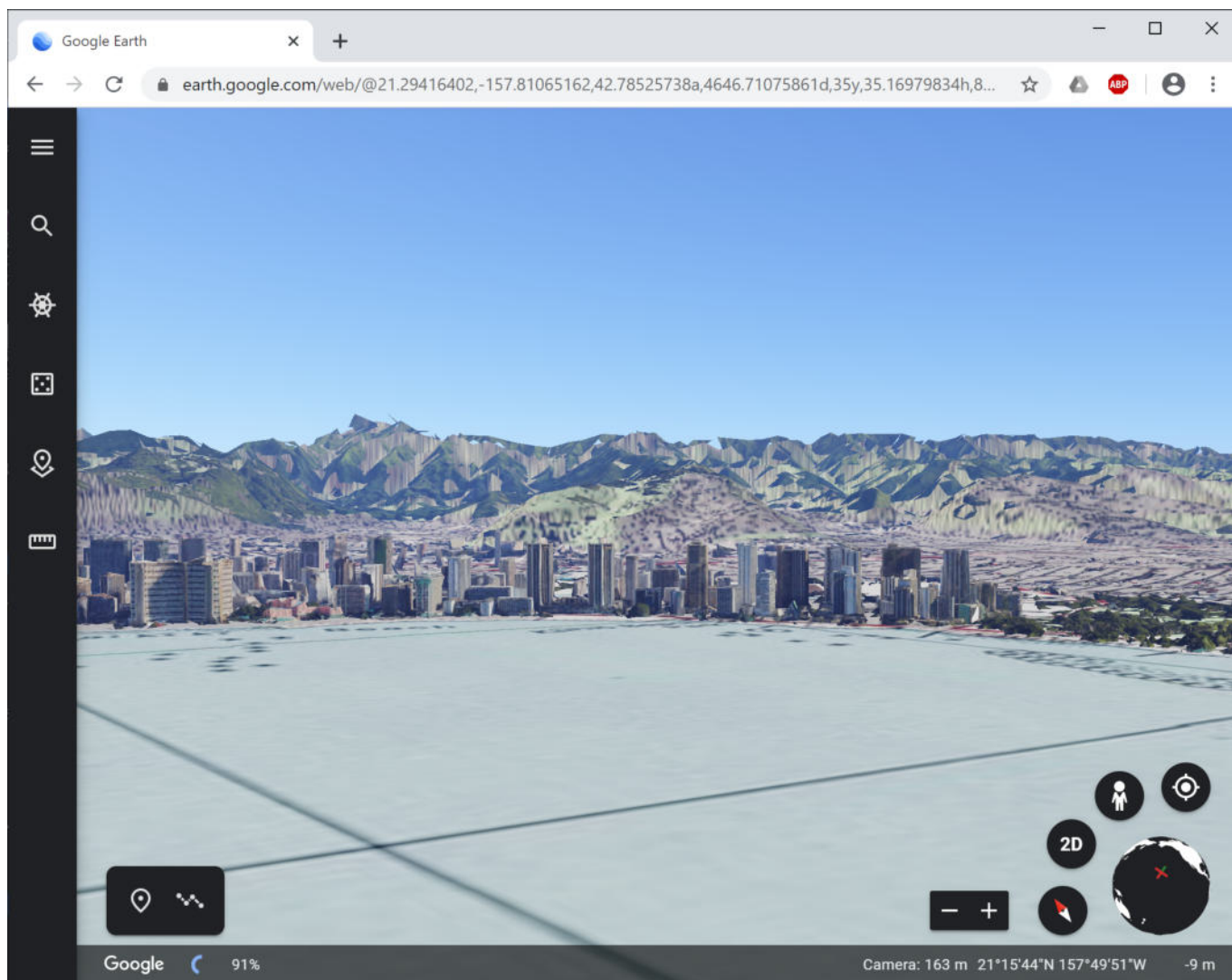
All borders, labels, places, roads, transit, landmarks and water.



Custom



Here is a view of the ESRI USA_Topo_Maps KMZ file with the 3D building option turned on and viewed in 3D in Google Earth Web.



That's it for this post. Thanks for reading...until next time.

Comments (2)

Newest First

Stu Smith 7 years ago · 0 Likes

Hi Stephanie, Thanks for sharing this! I've been a Google Pro user for many years, and I'm also a big fan of the USA Top Maps layer (credits, of course, to the USGS who originally created the topo quads, and to National Geographic for adding the shaded relief). There have been past attempts to overlay the topo quad series onto GE, but your solution is by far the best. I wasn't aware that ESRI services could be added to GE. There's one sad issue (not your fault!), and that's ESRI's download speed. Their server infrastructure is notoriously slow (for

example, adding basemaps to Arcmap) so users should be prepared for slow draw and refresh times. Again, THANKS to you!

Barney 7 years ago · 0 Likes

Game changer. Originally I had thought that the online version was a bit dopey compared to the desktop version. Thank you for sharing this information!

< [Setup QGIS Print Layout to use Inch Instead of Millimeter](#)

[Got GeoJSON Error? - Tip on Adding GeoJSON via URL in QGIS](#) >

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