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VDatum Updates for HYPACK 2021 and Future Changes

By John Lindberg

In this article I will attempt to clear up some questions concerning our VDatum installs: what to do and what not to do, what VDatum versions are used, and how files can be installed.

We recently created a new install for the latest VDatum files available from NOAA. The download is available here:

<https://hypack.s3.amazonaws.com/HYPACK+2021+VDatum.exe>

You will also find the link on our website, along with the current HYPACK® 2021 software release. At the time of writing this article, the most recent version of VDatum on the NOAA website (<https://vdatum.noaa.gov/welcome.html>) is version 4.1.2.

The VDatum program, along with the datasets for all VDatum zones are bundled up in a ZIP file dated December 3, 2020. The datasets from this package are the files we are installing with “HYPACK 2021 VDatum.exe”.

Download v4.1.2

Download the latest VDatum **(v4.1.2)** and its datasets.

VDATUM VERSIONING—SOFTWARE VS DATASET

Many folks ask us what VDatum version we are installing. The current version (4.1.2) is the VDatum software version, not the VDatum dataset version. If you view the changelog from the NOAA VDatum site (<https://vdatum.noaa.gov/about/currentevents.html>) you will notice most changes affect their software and not the datasets. If you navigate the NOAA VDatum web page, you will see the list of available VDatum zones and their corresponding version numbers.

[NOAA VDatum Zones and Versions](#)

	Maine/New Hampshire/Massachusetts - Gulf of Maine, Version 2.3
	New York/Connecticut/Rhode Island - Outer NY Bight, eastern Long Island Sound, Block Island Sound, Version 3.4
	New York - The Great South Bay, Version 3.4
	New Jersey/New York/Connecticut - Northern NJ, NY Harbor, western Long Island Sound, Version 3.4

DATASET UPDATES AND HYPACK®

The last update to their datasets that would be a concern to HYPACK® users was June 23, 2020. At that time, there was a fix for the NCcoast11 MTL GTX file.

What does that mean to HYPACK® users? It means that there was an error in the dataset pertaining to the North Carolina - Coastal Shelf zone when using Mean Tide Level. If you happen to be using that vertical reference, then you should be concerned and you should update that zone with the latest files. (I'll explain how you can do that a little later.) Other than that, nothing has changed since October 24, 2019, when updates were made in quite a few zones. (NOTE: Other changes listed in the revision log are irrelevant to HYPACK®.) This 'corrected' dataset from October 24, 2019 was in our HYPACK® 2020 VDatum install.

INSTALLING UPDATED VDATUM FILES

Fortunately for HYPACK® users, the dataset versions have not changed in over a year, so you have a few ways of installing VDatum files to HYPACK® 2021.

- **Download the [HYPACK® 2021 VDatum install](#).**
If you are prohibited from running installers by your IT department, use one of the following steps.
- **If you have HYPACK® 2020 with VDatum files installed**, simply copy the \HYPACK 2020\datum\vdatum folder over to the \HYPACK 2021\datum folder.
- **If you require only the North Carolina Coastal Shelf zone**, go to the [NOAA VDatum website](#) and download the entire VDatum dataset, or the zones of your choice. These will be downloaded as *.ZIP files. If you open the ZIP file, you will notice a 'vdatum' folder. Simply copy that \vdatum folder into the HYPACK 2021\datum folder. Overwrite the older files if necessary.

vdatum_all_20201203 v4.12.zip

Name	Type
vdatum	File folder

As of this writing, the version numbers for each VDatum zone have not changed in about a year. For example, even though the North Carolina - Coastal Shelf zone was updated June 23, 2020, the dataset version has not changed (NCcoast11_8301). Our GEODETIC PARAMETERS program is hard-coded to read those folder names, so if NOAA decides to change the version number of any zones, those zones will not appear in GEODETIC PARAMETERS. If this is ever the case, we would need to make a change to our geodesy database file (geopar.db) and post it on our website.

FUTURE DEVELOPMENT

In the future, we are planning on changing a few things. For example, there is really no point in creating future HYPACK® VDatum installs when you can download the updated files from the NOAA website. The plan is to simply scan the \datum\vdatum folder and list the zone names (NCcoast11_8301 for example) then the description (North Carolina - Coastal shelf, Version 1.1).

Stay tuned for more VDatum changes!

I would also suggest subscribing to receive email updates on any NOAA VDatum changes. And remember, NOAA provides VDatum and many other invaluable products and services free of charge, so be sure to let your senators and representatives know how important this is to you!