



NOAA Tide Data in the Manual Tides Program

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As most US users already know, HYPACK® has the option to import NOAA predicted or verified tides into the MANUAL TIDES program. For quite a number of years, you would simply navigate around the NOAA Tides and Currents website, choose the tide station, data and dates needed, and download the data as a text file. The text file was a fixed column format that would change over the years, requiring us to update our program every couple of years to accommodate these changes. The last format we imported looked like this. (Note the word “looked”.)

FIGURE 1. Old NOAA Text File Format

Last year, we implemented a routine to download data directly from the NOAA website, which basically eliminates the extra steps to download the data in text file form. This is all fine and dandy, but what if your project requires the download of tide data in file form, or somebody emails you the current NOAA tide data to use on your project?

The first thing you will notice when you go to the Tides and Currents website is that the tide data on the web page no longer “looks” the same!

Station	Date	Time	Pred 6	Vrfy 6
DCP#:			1	1
Units:			Feet	Feet
Data%:	MLLW	Local	100.00	100.00
Maximum:			5.67	6.19
Minimum:			-0.19	-0.63
9411340	20111110	00:00	2.85	2.60
9411340	20111110	00:06	2.81	2.50
9411340	20111110	00:12	2.76	2.43
9411340	20111110	00:18	2.71	2.42
9411340	20111110	00:24	2.66	2.27
9411340	20111110	00:30	2.61	2.44
9411340	20111110	00:36	2.57	2.18
9411340	20111110	00:42	2.52	2.31
9411340	20111110	00:48	2.48	2.13
9411340	20111110	00:54	2.44	2.27
9411340	20111110	01:00	2.40	2.05
9411340	20111110	01:06	2.37	2.30
9411340	20111110	01:12	2.34	1.93
9411340	20111110	01:18	2.31	2.01
9411340	20111110	01:24	2.28	2.09

FIGURE 2. NOAA Tides and Currents Site

The screenshot shows the NOAA Tides and Currents website interface. At the top, there are navigation tabs for PRODUCTS, PROGRAMS, EDUCATION, and HELP & ABOUT. Below these, there is a search bar and a breadcrumb trail: Home / Products / Water Levels / 8465705 New Haven, CT. The main content area includes a 'Station Info' dropdown menu set to 'Tides/Water Levels', and several configuration options: 'Options for' (a dropdown), 'Units' (set to 'Feet'), 'Timezone' (set to 'GMT'), 'Datum' (set to 'MLLW'), 'Shift dates' (with 'Back 1 Day' and 'Forward 1 Day' buttons), and 'Interval' (with options for 6 min, 1 hr, HL, Day, and Month). There are 'Update' and 'Data Only' buttons. Below the configuration area, there is a 'Data Listing' table with columns for Date, Time (GMT), Predicted (ft), Preliminary (ft), and Verified (ft). The table shows data for the date 2014/11/09 from 00:00 to 00:48. A 'Web Services' and 'Export to CSV' link is visible at the bottom right of the table.

Date	Time (GMT)	Predicted (ft)	Preliminary (ft)	Verified (ft)
2014/11/09	00:00	-0.08	-0.253	-
2014/11/09	00:06	0.019	-0.118	-
2014/11/09	00:12	0.127	0.033	-
2014/11/09	00:18	0.242	0.203	-
2014/11/09	00:24	0.364	0.358	-
2014/11/09	00:30	0.492	0.525	-
2014/11/09	00:36	0.626	0.696	-
2014/11/09	00:42	0.765	0.85	-
2014/11/09	00:48	0.908	1.01	-

You can no longer save the page as a text file. You can now download the data as a *.CSV (comma separated values) file, but it would not be compatible with the MANUAL TIDES program.

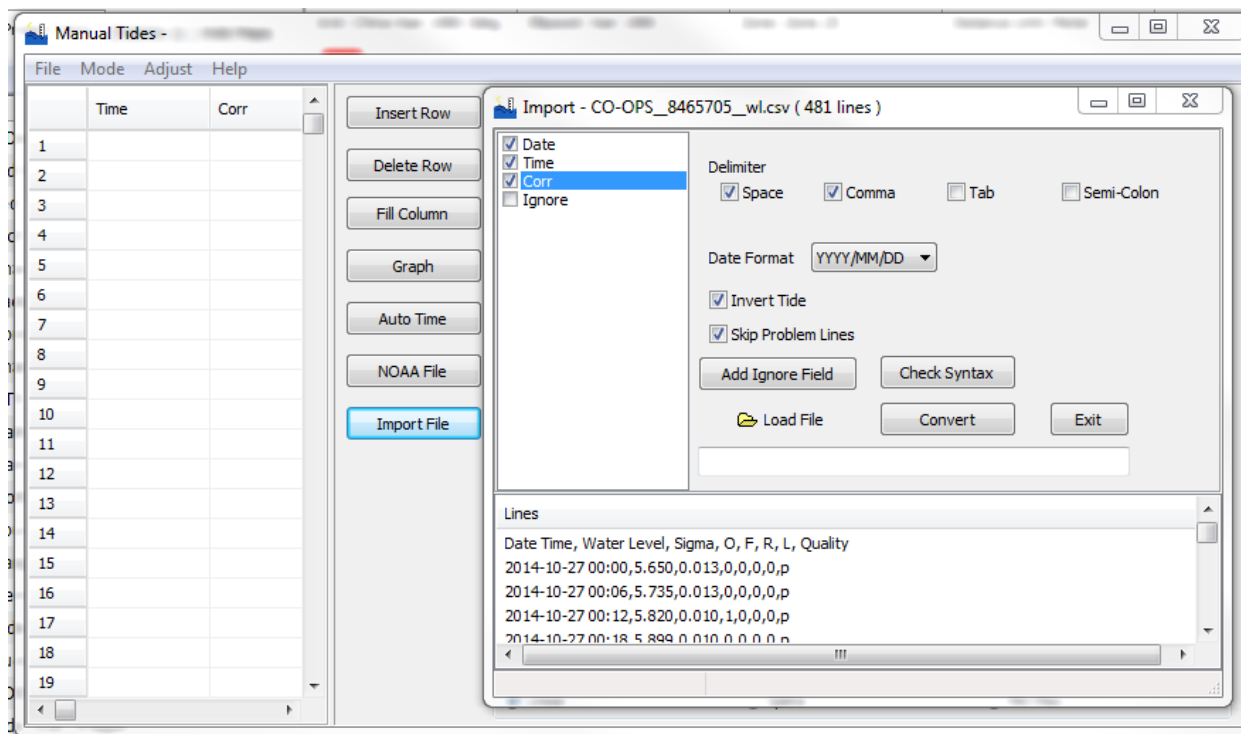
FIGURE 3. Sample NOAA CSV File

Date Time	Water Level	Sigma	O	F	R	L	Quality
2014-10-27 00:00	5.650	0.013	0	0	0	0	p
2014-10-27 00:06	5.735	0.013	0	0	0	0	p
2014-10-27 00:12	5.820	0.010	1	0	0	0	p
2014-10-27 00:18	5.899	0.010	0	0	0	0	p
2014-10-27 00:24	5.971	0.010	0	0	0	0	p
2014-10-27 00:30	6.024	0.010	0	0	0	0	p
2014-10-27 00:36	6.070	0.010	0	0	0	0	p
2014-10-27 00:42	6.086	0.007	1	0	0	0	p
2014-10-27 00:48	6.089	0.007	1	0	0	0	p
2014-10-27 00:54	6.099	0.007	1	0	0	0	p
2014-10-27 01:00	6.112	0.003	1	0	0	0	p
2014-10-27 01:06	6.125	0.007	1	0	0	0	p
2014-10-27 01:12	6.125	0.010	1	0	0	0	p
2014-10-27 01:18	6.112	0.013	0	0	0	0	p
2014-10-27 01:24	6.079	0.013	1	0	0	0	p
2014-10-27 01:30	6.027	0.013	1	0	0	0	p
2014-10-27 01:36	5.951	0.013	1	0	0	0	p
2014-10-27 01:42	5.873	0.013	1	0	0	0	p
2014-10-27 01:48	5.791	0.016	1	0	0	0	p
2014-10-27 01:54	5.689	0.016	0	0	0	0	p
2014-10-27 02:00	5.577	0.016	0	0	0	0	p
2014-10-27 02:06	5.466	0.016	1	0	0	0	p

You can easily import this CSV file to the MANUAL TIDES program:

1. **Click [Import File].**
2. **Click [Load File] and select your *.CSV file.**
3. **Select both space and comma as delimiters,** since this file is not entirely comma delimited. (There are spaces separating date and time.)
4. **Set the year format to YY/MM/DD.**
5. **Choose “Invert Tide”** to save the file as a tide correction file.
6. **Select the proper fields along with their order in the *.CSV file.** Your setup should look like this:

FIGURE 4. Sample CSV File Import Configuration



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7. **Click on [Check Syntax].** If all is set up properly, the program should parse all but the first line, and give you a dialog like this:

FIGURE 5. Correct Syntax Configuration Parses All But 1 Line

8. **If that looks good you can click [Convert].**
9. Click "Exit" and your tide information imports fully into the MANUAL TIDES program.
10. **Save your *.TDX and * TID file** and you should be good to go!

