

**National Weather Service  
Product Description Document (PDD)**

**Tampa Bay Marine Channel Forecast**

**Part I - Mission Connection**

*Product Description*

The Tampa Bay Marine Channel Forecast (MCF) was developed as part of WFO Tampa Bay's Weather Ready Nation Pilot objective. The MCF utilizes gridded forecast data routinely produced in GFE for six of the seven weather elements including winds, gusts, waves, weather, rain chance, and hazards. For the seventh element, water level relative to mean sea level, MCF populates data from the Extratropical Surge and Tide Operational Forecast System (ESTOFS) model produced by the Ocean Prediction Center (OPC). Forecasts are produced at 13 points along the Tampa Bay channel. These 13 points were considered by a diverse group of mariners to be critical points of weather information along the channel. The MCF forecasts are displayed on a static Google map with the Tampa Bay channel and the forecast points overlaid. Users can click on any point to view the forecast.

*Purpose / Intended Use*

The need for consolidated and enhanced marine data for the Tampa Bay channel was identified at Tampa Bay Harbor Safety and Security meetings and at Vessel Movement Committee meetings. The MCF was developed to address weather concerns from various mariners of the Tampa Bay channel, including the United States Coast Guard and the Tampa Bay Harbor Pilots. The MCF provides decision support services to these mariners by providing high resolution weather forecasts throughout the channel to ensure safe navigation. Benefits from the MCF include more precise forecasts to warrant safe navigation conditions and to limit vessel delays caused by low visibility, high winds, or other high impact weather events.

*Audience*

The MCF can be used by emergency managers, United States Coast Guard, researchers (NOAA, universities, Florida Fish and Wildlife), Tampa Bay Harbor Pilots, towing or tug boat operators, recreational boaters, and any customer or partner with interest in the respective environmental data for Tampa Bay.

*Presentation Format*

The MCF is available on the internet at: <http://www.srh.noaa.gov/tbw/?n=marinechannelsforecast>  
Users may click individual points on the map to receive the forecast in a table format. Forecasts are provided every hour for 18 hours from time of issuance. Figure 1 shows an example of the MCF webpage layout.

*Feedback Method / Period*

Comments and suggestions regarding the MCF should be directed to:

Todd Baron  
Emergency Response Meteorologist  
National Weather Service- Tampa Bay Area

2525 14<sup>th</sup> Ave SE  
Ruskin, FL 33570  
813-645-2323

[Todd.Barron@noaa.gov](mailto:Todd.Barron@noaa.gov)

The evaluation period will 12/15/2012-6/1/2013

## Part II – Technical Description

### *Format and Science Basis*

A GFE formatter (see figure 2) was created to extract gridded data from the aforementioned weather elements. For water level relative to mean sea level, ESTOFS data is ingested into GFE and the water level element is created by running a procedure to add the model's harmonic tide to the model's surge. The forecast is then automatically uploaded to the MCF website. Forecasts are valid 18 hours from the time of issuance and are routinely updated four times daily (0430, 1030, 1630, 2230) or as necessary.

### *Availability*

The direct link to the MCF is: <http://www.srh.noaa.gov/tbw/?n=marinechannelsforecast>

Future links will be added to the WFO's home page and decision support page.

### *Additional Information*

Future additions for the MCF include cross-sections of forecasts, a navigation planner (similar to the Activity Planner), and the addition of the National Ocean Service's Tampa Bay Operational Forecast System (TBOFS).

National Weather Service Weather Forecast Office  
Tampa Bay Area, FL

Home Site Map News Organization Search for: [ ] NOAA All NOAA

### MARINE CHANNELS FORECAST

Experimental (December 15, 2012 - June 1, 2013)

This experimental product includes forecasts for 13 locations along the Tampa Bay channel designed to aid local mariners and any customer or partner with interest in the respective environmental data for Tampa Bay.

Forecast	Observations	Water
----------	--------------	-------

[Click For Forecast](#)

**Hazardous Weather Conditions**

- [Hazardous Weather Outlook](#)
- [Watch/Warning](#)

**Inland Forecast**

- [Marine Forecast](#)
- [Marine Forecast](#)
- [Marine Forecast](#)
- [Marine Forecast](#)

**Links**

- [Submit a VHF or Marine VHF \(SR40\)](#)

**Miscellaneous Information**

- [Product Description Document](#)
- [Comments & Feedback](#)

We are interested to hear your feedback on this new forecast. Please consider filling out our product [survey](#). Your feedback will help us determine product utility and if modifications are needed.

National Weather Service  
Tampa Bay Area, FL Weather Forecast Office  
2525 14th Ave. S.E.  
Ruskin, FL 33570  
(813) 645-2323  
Page Author: T2W Webmaster  
Web Master's E-mail: [t2w@noaa.gov](mailto:t2w@noaa.gov)  
Page last modified: January 10, 2013 4:45 PM

[Home](#) [Site Map](#) [News](#) [Organization](#) [Search for:](#) [ ] [NOAA](#) [All NOAA](#)

[Disclaimer](#) [Privacy Policy](#) [Feedback](#) [Contact Us](#)

Figure 1: MCF main webpage layout.

Figure 2: GFE MCF formatter example. This forecast is uploaded to the MCF webpage.

The screenshot displays the 'Formatter Launcher' application window. The main content area shows a weather forecast for 'TAMPA BAY NAVIGATION SAFETY FORECAST' issued on 'FRI NOV 16 2012' at '1253 PM EST'. The forecast is for the 'PORT OF TAMPA CSX' and 'ALAFIA ENTRANCE'. The data is presented in two tables: 'STARTTABLE' and 'STOPTABLE'. Each table lists time periods from 16/1000 EDT to 17/2100 EDT, with columns for Wind (WIND), Gust (GST), Mean Sea Level (MSL), Wave (WAVE), Weather (WEATHER), Probability of Precipitation (POP), and Hazards (HAZARDS). The weather conditions include 'DRIZZLE' and 'SHOWERS'. The interface also features a sidebar with various forecast elements like 'Tide SFC fcast (1000)', 'Wind SFC fcast (1000)', and 'WaterLevel ESTOPS SFC fcast (1000)'. At the bottom, there are controls for 'Save Draft', 'Transmit', and 'Product expires in 12'.

TIME PERIOD	WIND	GST	MSL	WAVE	WEATHER	POP	HAZARDS
16/1000 EDT	NE 11	15	-2.3	1	DRIZZLE	0	
16/1100 EDT	NE 9	13	-1.9	1		0	
16/1200 EDT	NE 8	11	-1.3	1		0	
16/1300 EDT	NE 7	10	-0.8	1		10	
16/1400 EDT	NE 7	9	-0.5	1		10	
16/1500 EDT	N 7	9	0.2	1		10	
16/1600 EDT	N 7	10	0.3	1		10	
16/1700 EDT	N 8	12	0.2	1		10	
16/1800 EDT	NE 9	13	0.0	1		10	
16/1900 EDT	NE 10	14	-0.2	1	SHOWERS	20	
16/2000 EDT	NE 10	14	-0.4	1	SHOWERS	20	
16/2100 EDT	NE 10	14	-0.4	1	SHOWERS	20	
16/2200 EDT	NE 10	14	-0.1	1	SHOWERS	20	
16/2300 EDT	NE 10	14	0.3	1	SHOWERS	20	
17/0000 EDT	NE 10	14	0.8	1	SHOWERS	20	
17/0100 EDT	NE 10	14	1.2	1	SHOWERS	20	
17/0200 EDT	NE 10	14	1.4	1	SHOWERS	20	
17/0300 EDT	NE 9	13	1.4	1	SHOWERS	20	
17/0400 EDT	NE 9	12	1.2	1	SHOWERS	20	