GPS and the New Geography - Class Project

Observation Guide – Pier 15 – 12/2/2012

The goal of the project is to document the character of the current change in the Upper Bay of New York harbor along the path between the Verrazano Narrows and the East river in the vicinity of South Street Seaport. The current diagrams from "Eldridge Tide and Pilot Book" suggest that the current changes near Pier 16 soon after it does after the Narrows. This makes sense because the East River is actually a passageway between New York Harbor and Long Island Sound. The understanding amongst mariners who work in the area is that the time difference between the Narrows and Pier 16 is approximately 20 minutes.

The goal of this project is to attempt to prove or disprove this assumption. In addition to the Eldridge diagrams, Stevens Tech has created a computer model of the Harbor. But actual observations are hard to come by.

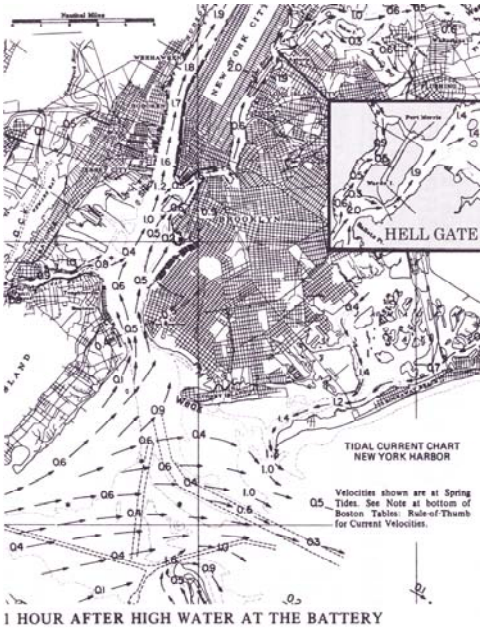
For this project the literature states that the ebb will begin at the Narrows on 12/2 at 11:52 AM. The actual time can be affected by the velocity and direction of the wind at the time. Observation should begin thirty minutes prior to the scheduled time.

There will two types of observations: 1) At a pre-determined time, what can be observed about the surface current, and 2) If possible, the time that the surface current has begun to ebb.

Time	Observation – Please include an estimate of the velocity as well as direction
11:22	
11:52	
12:22	

Time at which the ebb has started:	

The Steven's model shows the ebb begins here soon after the ebb begins at the Narrows with a velocity of 1 m/s within 45 minutes. Because the pier may still be closed because of Sandy damage, Pier 16 will serve as a substitute.



10:54

11:54

Citations

Surface Current Images and current change times from "Eldridge Tide and Pilot Book - 2012"