The Locks Are Open – They're Closed – They're Open!

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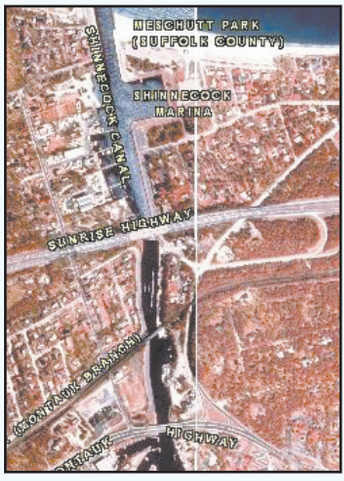
Perhaps since the time of the Montaukett sachem Mongotucksee, mariners and local businesses have wanted to connect the Peconic and Shinnecock bays. The 4,700' isthmus is clearly the most convenient place to dig a canal – and dig they have since the time before the Revolution. There was only one problem. The Peconics and Shinnecock bays are on different tidal cycles or clocks. This requires significant mechanical management. This column is about that.

The Locks are Broken!

After centuries of attempts at maintaining a canal, to little lasting avail, and significant legislative maneuvering, the monies to create the Shinnecock Canal was appropriated in 1886. The amount to create the canal? $15,000… You can't find a boat that motors through it today that costs that little… The canal wasn't completed until 1892 as running out of money (I guess $15,000 wasn't quite enough) and weather damages kept the canal "at bay" for years. But open it did and there was an immediate positive effect on the fishing and clamming industries of the Shinnecock Bay as it had increasingly become brackish as rain water kept replacing the sea water that was within it. This then created the urge to have an opening to the ocean and many failed attempts were made therein… until 1938 when Mother Nature accomplished what man had failed to do. The Hurricance of 1938 created what we now know as the Shinnecock Inlet. 27,000 boats per year now use that Inlet.



The canal brought to light for the engineers what many locals had known for centuries. The tides of the Peconics and Shinnecock Bay were almost perfectly out of sync – high at one end while low at the other. Also, the Peconics themselves are naturally higher in water content – 3' more when measured tidally. The result was that large volumes of water would flow swiftly, first in one direction and then in the opposite direction, in accordance with the tidal cycle, causing heavy and dangerous erosion in the canal. So, tide gates were first built, pushed open by the Peconics "ebbing" into Shinnecock Bay and pushed closed by Shinnecock Bay "flooding" into the Peconics. In 1919, locks were added - the lock is 41 feet wide and 250 feet long so anything that will fit is allowed to enter - and the system was complete. Almost… The locks had to be rebuilt about 30 years ago – and are now being virtually rebuilt again. So, until the scheduled completion of May 31st, which means they will be closed over the Memorial Day weekend, we are back to the system of pre-1919… when the Peconics are ebbing south, the tidal gates will be pushed open by that rush of water and when Shinnecock is flooding north, the tidal gates will be pushed closed by that reciprocal flow of water…

What Do I Do?

There are little choices until the repairs are affected. These repairs will require essentially the creation of a coffer dam (how bridge footings are created.) The locks are sealed off and all the water is drained from them. Then, using quick-drying cement, all new footings for the lock mechanisms and seawalls are put in place. Once dry, the coffer dam is removed and we have our locks back.

So, until then, you will need to call the Lock Master at 631-852-8299 and just ask when the locks will be open next. There are internet-based programs which will give you a good estimate of when the ebbing and flooding will occur. Notice I didn't say when high and low tides are. This is all about when the tides turn. You need the ebb and flood times, as I said, not the high and low tides…

Shinnecock Canal, Railroad Bridge, New York Current - 15 May 2008 40.8867° N, 72.5017° W

2008-05-15 00:58 EDT Slack, Flood Begins ** • 2008-05-15 03:57 EDT Max Flood
2008-05-15 06:29 EDT Slack, Ebb Begins ** • 2008-05-15 09:42 EDT Max Ebb
2008-05-15 13:12 EDT Slack, Flood Begins ** • 2008-05-15 16:24 EDT Max Flood
2008-05-15 19:10 EDT Slack, Ebb Begins ** • 2008-05-15 22:17 EDT Max Ebb

** When "Flood Begins", the closing of the gates can't be far behind.
When "Ebb Begins", the opening of the gates can't be far behind.

Recall that these programs are formulas – they naturally can't adjust for weather related effects on tides. BTW, who is the stand-on vessel and who is the give-way vessel when two boats are in a head-on condition in the canal? The vessel with the tidal current on her stern is stand-on as she is less maneuverable with that current pushing her. The vessel with the current on her bow is give-way as she can effectively stand fast by matching throttle power to the push of the current.

. . . To Be Continued in next week's Independnet.

If you are interested in being a volunteer member of USCG Forces, email me at JoinUSCGAux2008@aol.com or go direct to MaryJo Cruickshank, who is in charge of new members matters, at FSO-PS@emcg.us and we will help you "get in this thing…"