

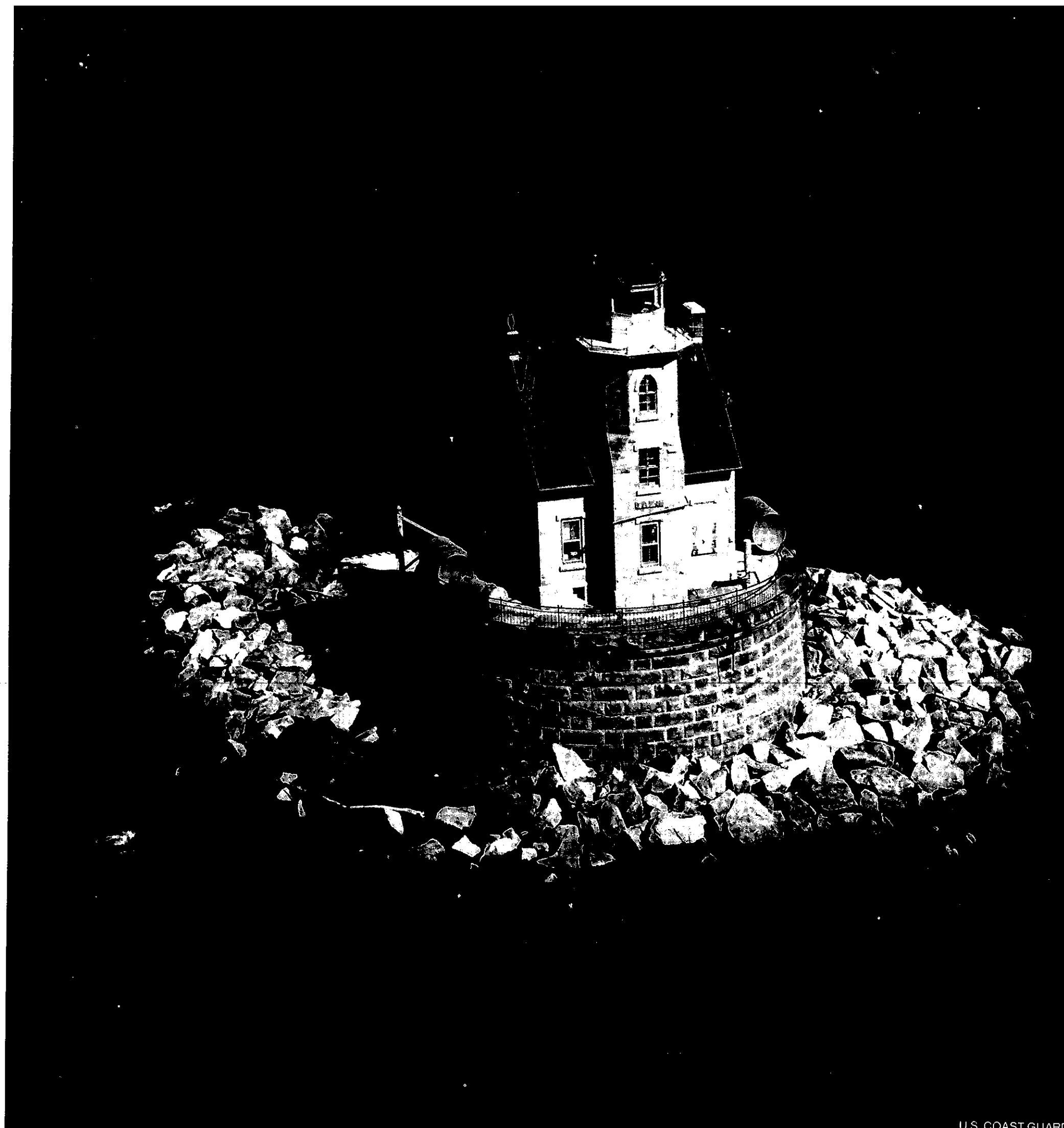
# LONG ISLAND SOUND AND BLOCK ISLAND SOUND

# TIDAL CURRENT CHARTS

Seventh Edition 1979



U.S. DEPARTMENT OF COMMERCE  
National Oceanic and  
Atmospheric Administration  
National Ocean Survey  
Rockville, Md. 20852



TIDAL CURRENT CHARTS  
LONG ISLAND SOUND AND BLOCK ISLAND SOUND  
SEVENTH EDITION 1979

These charts supersedes both the "Tidal Current Charts, Long Island Sound and Block Island Sound," Fifth Edition 1973; and "Tidal Current Charts, Block Island Sound and Eastern Long Island Sound," First Edition 1971.

These charts differ from the superseded hourly spaced charts. These charts are computed on an equal interval basis for each flood and ebb phase.

These tidal current charts present a comprehensive view of the speed and direction of the current in Block Island Sound and Long Island Sound throughout the tidal cycle. The arrows show the true direction of the current. The figures give the speed in knots at average spring speeds, that is, the greater flood and greater ebb speeds at the time of new or full Moon when the currents are stronger than average. When the current is less than 0.1 knot it is designated as weak. The data depicts the average speed and direction at the exact location of the station. Inference of the current between stations must be done according to the user's experience and local knowledge.

**NONTIDAL CURRENTS.** These charts depict the flow of the tidal currents under normal weather conditions. Strong winds and freshets, however, bring about nontidal currents which may modify considerably the speeds and directions shown on the charts.

**USE OF CHARTS.** The charts which may be used for any year, are referred to the times of slack waters at The Race. Daily predictions for that station are included in the "Tidal Current Tables, Atlantic Coast of North America," published annually by the National Ocean Survey.

There are 13 charts: 6 are referred to "Slack: flood begins" (SFB) and 7 are referred to "Slack: ebb begins" (SEB). These charts are computed on an equal interval basis for each flood and ebb. The chart to be used for any desired time is determined in the following manner. For the six equal interval charts referred to "Slack: flood begins" compute as follows: determine the time duration of flood in minutes by computing the time difference between "Slack: flood begins" and "Slack: ebb begins." Divide the time duration by six to determine the time in minutes for each flood interval. Add this time interval consecutively to "Slack: flood begins" to determine the times for each successive interval. The chart to be used for any desired time will be closest to the computed chart time. Compute the chart series referred to "Slack: ebb begins" by dividing the ebb duration by seven and following the above procedure.

The spring speeds shown on the charts must be corrected to the speeds to be expected at the day and hour of their use. The speed of the tidal

current varies from day to day principally in accordance with the phase, distance and declination of the Moon. To obtain the speed for any particular day and hour, the speeds indicated on the charts should be modified as follows: obtain from the Tidal Current Tables the predicted speed of the "Maximum Flood" or "Maximum Ebb" at The Race, following the slack to which the appropriate chart is referred. With this predicted speed enter the following table and obtain the corresponding correction factor. The speed of the current for the particular day and hour is then obtained by multiplying the speed indicated on the chart by this factor.

Factors for correcting speeds			
MAXIMUM FLOOD		MAXIMUM EBB	
Predicted speed (knots) at The Race	Factor to apply to speed on charts	Predicted speed (knots) at The Race	Factor to apply to speed on charts
1.2 to 1.5 multiply by-----	0.4	1.8 to 2.1 multiply by-----	0.5
1.6 to 1.8 multiply by-----	0.5	2.2 to 2.5 multiply by-----	0.6
1.9 to 2.2 multiply by-----	0.6	2.6 to 2.9 multiply by-----	0.7
2.3 to 2.5 multiply by-----	0.7	3.0 to 3.3 multiply by-----	0.8
2.6 to 2.8 multiply by-----	0.8	3.4 to 3.7 multiply by-----	0.9
2.9 to 3.2 multiply by-----	0.9	3.8 to 4.1 multiply by-----	1.0
3.3 to 3.5 multiply by-----	1.0	4.2 to 4.5 multiply by-----	1.1
3.6 to 3.9 multiply by-----	1.1	4.6 to 4.9 multiply by-----	1.2
4.0 to 4.2 multiply by-----	1.2	5.0 to 5.3 multiply by-----	1.3
4.3 to 4.5 multiply by-----	1.3		

DAY	SLACK WATER TIME	MAXIMUM CURRENT TIME VEL.	
	H.M.	H.M.	KNOTS
4 F	0011	0303	2.2F
	0552	0920	2.5E
	1246	1547	2.3F
	1833	2149	2.7E
5 SA	0112	0410	2.2F
	0652	1015	2.9E
	1341	1644	2.4F
	1929	2245	2.8E
6 SU	0207	0509	2.3F
	0748	1106	3.0E
	1431	1729	2.5F
	2018	2334	3.0E

The speed factor 0.6 applies to all six charts starting with SFB @ 00<sup>h</sup> 11<sup>m</sup>.

**EXAMPLE.** Suppose the direction and speed of the current in Plum Gut (between Plum Island and Orient Point) at 10' depth, is desired for 03<sup>h</sup>25<sup>m</sup> a.m. (EST) on the fourth day of the month when the predictions for the Race are given in the Tidal Current Tables, Atlantic Coast of North America as shown above.

**PROCEDURE.** The time of 03<sup>h</sup>25<sup>m</sup> a.m. (EST) occurs during the flood phase at the reference station. The duration of this flood phase is SEB @ 05<sup>h</sup>52<sup>m</sup> SFB @ 00<sup>h</sup>11<sup>m</sup>=5<sup>h</sup>41<sup>m</sup> or 341 minutes. Divide 341 minutes by 6 to determine the time duration of each interval (56.83 minutes). Add this 56.83 minutes consecutively to each interval starting with: SFB @ 00<sup>h</sup>11<sup>m</sup>.

SFB @ 00<sup>h</sup>11<sup>m</sup>  
SFB + 1 @ 01<sup>h</sup>08<sup>m</sup>  
SFB + 2 @ 02<sup>h</sup>05<sup>m</sup>  
SFB + 3 @ 03<sup>h</sup>01<sup>m</sup>  
SFB + 4 @ 03<sup>h</sup>58<sup>m</sup>  
SFB + 5 @ 04<sup>h</sup>55<sup>m</sup>

The desired time of 03<sup>h</sup>25<sup>m</sup> a.m. (EST) is nearest to the time of SFB + 3 @ 03<sup>h</sup>01<sup>m</sup>. Use chart SFB + 3 and multiply all speeds on the chart by the speed correction factor. For a predicted maximum flood @ 03<sup>h</sup>03<sup>m</sup> of 2.2 knots the table gives a correction factor of 0.6. The speed at Plum Gut is 2.7 knots x 0.6 = 1.6 knots.

**INTERPOLATION.** The time of 03<sup>h</sup>25<sup>m</sup> a.m. (EST) is approximately midway between SFB + 3 @ 03<sup>h</sup>01<sup>m</sup>=1.6 knots and SFB + 4 @ 03<sup>h</sup>58<sup>m</sup> 1.4 x 0.6=.8 knots. The interpolated speed at 03<sup>h</sup>25<sup>m</sup>=1.3 knots.

**NOTE:** The name designation for each equal interval chart has been shortened to allow for inclusion in the Tidal Current Charts and Tidal Current Chart Diagrams. The six equal interval charts referred to the flood phase at the reference station (The Race) are SFB, SFB + 1, SFB + 2, SFB + 3, SFB + 4, and SFB + 5. The seven equal interval charts referred to the ebb phase are: SEB, SEB + 1, SEB + 2, SEB + 3, SEB + 4, SEB + 5, and SEB + 6.

**INDEX CHARTS.** These station index charts on pages 30<sup>1</sup> and 31 shows the location of the tidal current stations and the depths of the meters. Only the top two depths are depicted on the tidal current charts. Data for the bottom depths are included on the back cover.

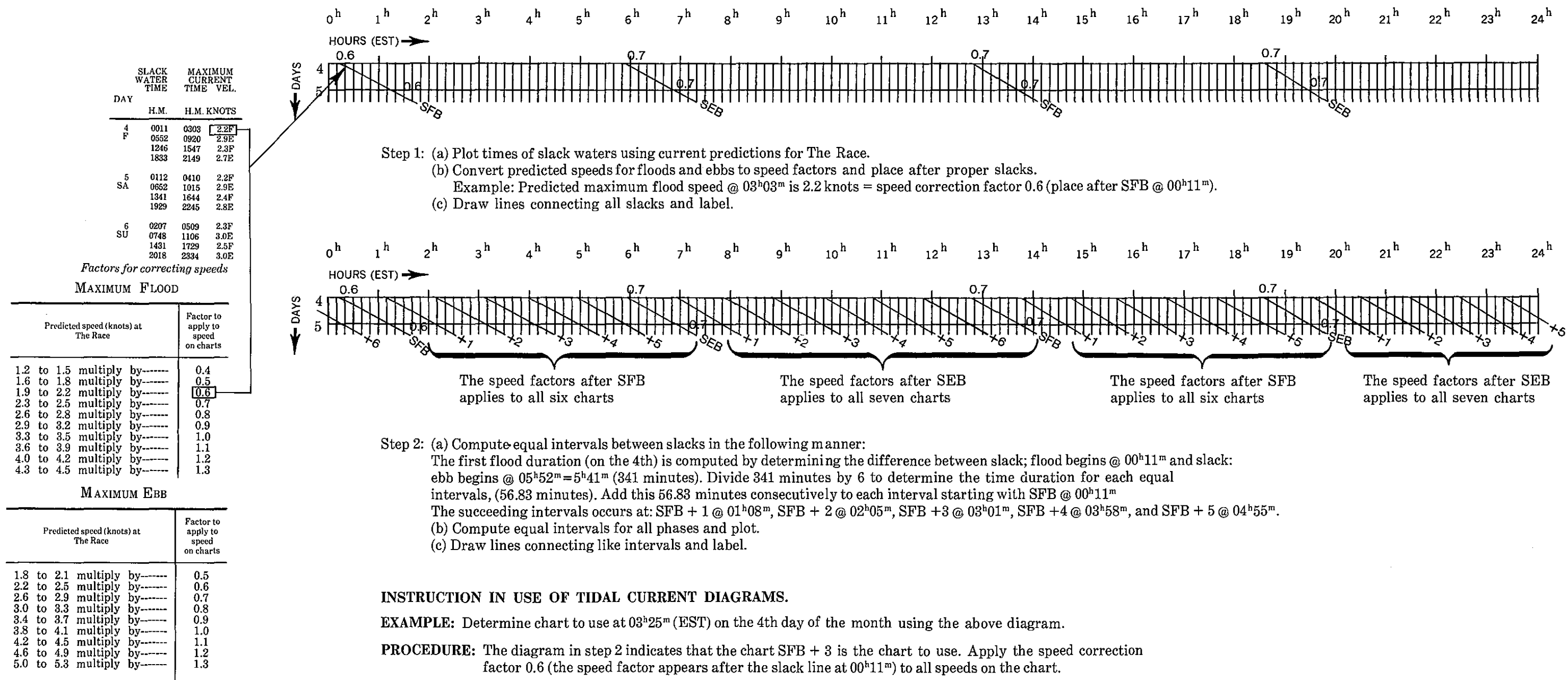
All persons using these charts are invited to send information or suggestions for increasing their usefulness to the:

Director, National Ocean Survey  
6001 Executive Blvd.  
Rockville, Md. 20852

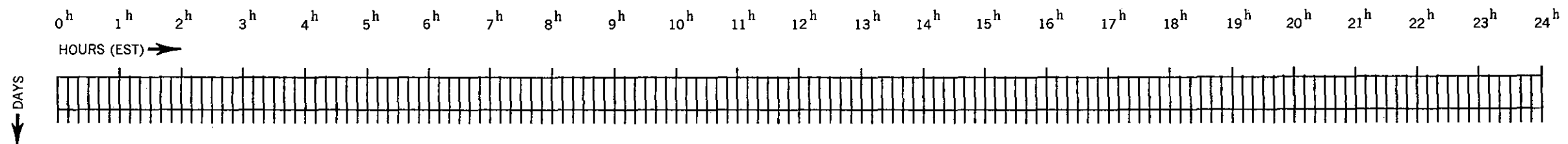
# TIDAL CURRENT DIAGRAM FOR LONG ISLAND SOUND AND BLOCK ISLAND SOUND TIDAL CURRENT CHARTS

The following instructions to compute an equal interval tidal current chart diagram must refer to the times of slack water at The Race. Daily predictions for The Race are included in the "Tidal Current Tables, Atlantic Coast of North America," published annually by the National Ocean Survey, NOAA.

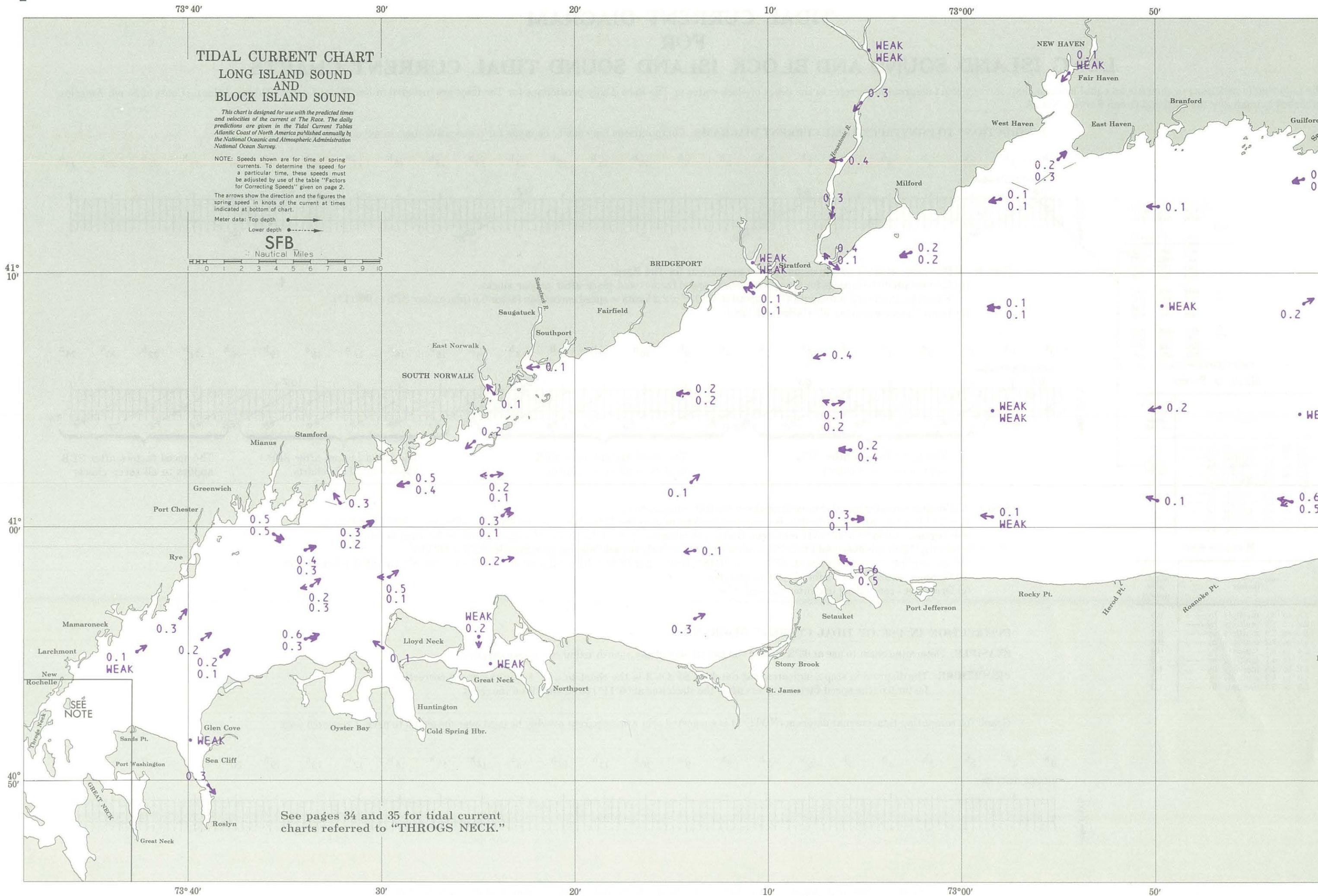
**INSTRUCTIONS TO CONSTRUCT TIDAL CURRENT DIAGRAMS.** Computations may easily be made for consecutive days in advance of their use.



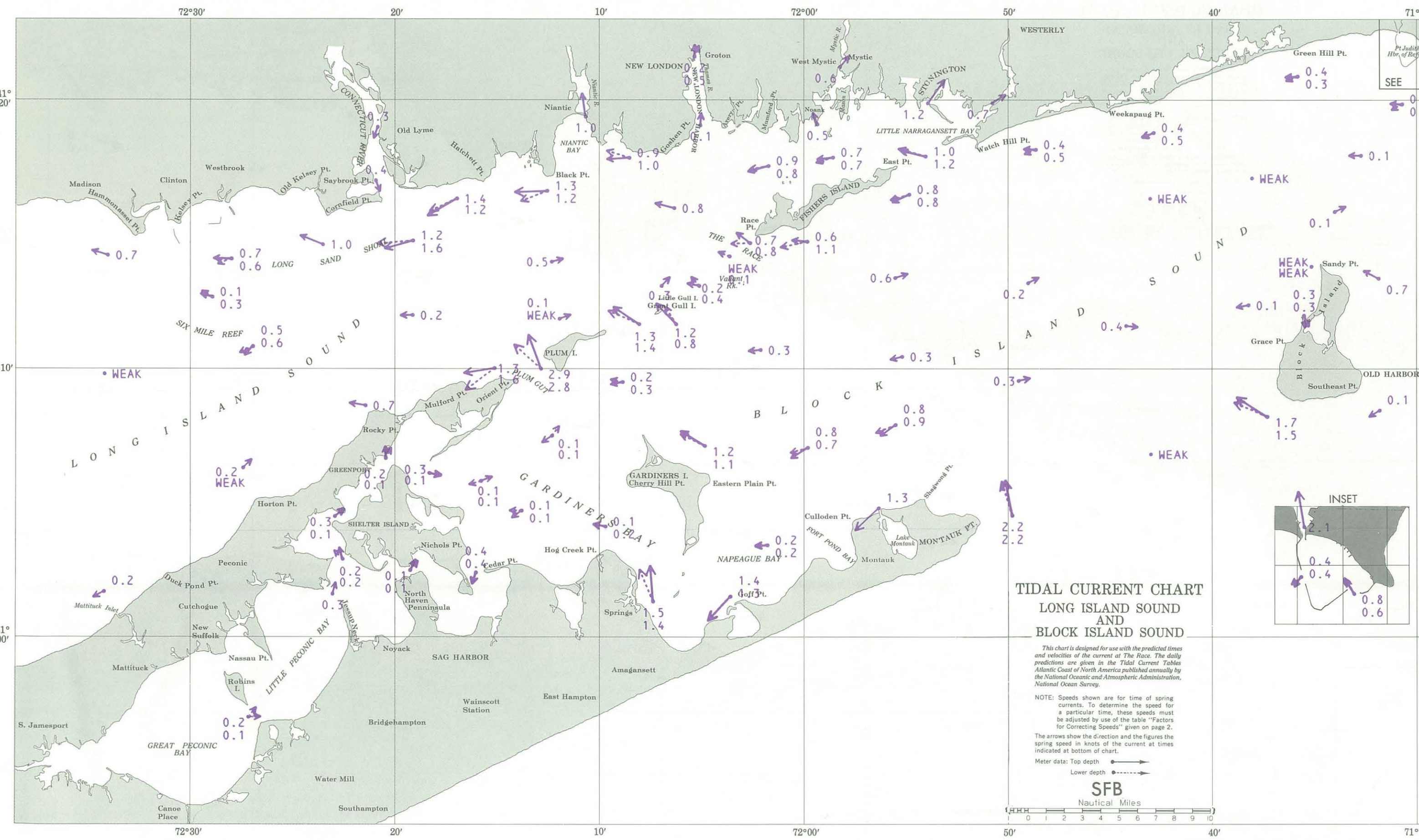
Graph for computing tidal current diagram (NOTE: It is suggested that a transparent overlay be used over the graph to permit repeated use).











**TIDAL CURRENT CHART**  
**LONG ISLAND SOUND**  
**AND**  
**BLOCK ISLAND SOUND**

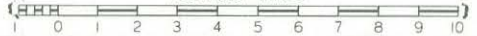
This chart is designed for use with the predicted times and velocities of the current at The Race. The daily predictions are given in the Tidal Current Tables Atlantic Coast of North America published annually by the National Oceanic and Atmospheric Administration, National Ocean Survey.

NOTE: Speeds shown are for time of spring currents. To determine the speed for a particular time, these speeds must be adjusted by use of the table "Factors for Correcting Speeds" given on page 2. The arrows show the direction and the figures the spring speed in knots of the current at times indicated at bottom of chart.

Meter data: Top depth ———→  
Lower depth - - - - -→

**SFB**

Nautical Miles






*This chart is designed for use with the predicted times and velocities of the current at The Race. The daily predictions are given in the Tidal Current Tables Atlantic Coast of North America published annually by the National Oceanic and Atmospheric Administration National Ocean Survey.*

NOTE: Speeds shown are for time of spring currents. To determine the speed for a particular time, these speeds must be adjusted by use of the table "Factors for Correcting Speeds" given on page 2.

The arrows show the direction and the figures the spring speed in knots of the current at times indicated at bottom of chart.

Meter data: Top depth   
Lower depth 

SFB+1  
Nautical Mile



41°  
10'

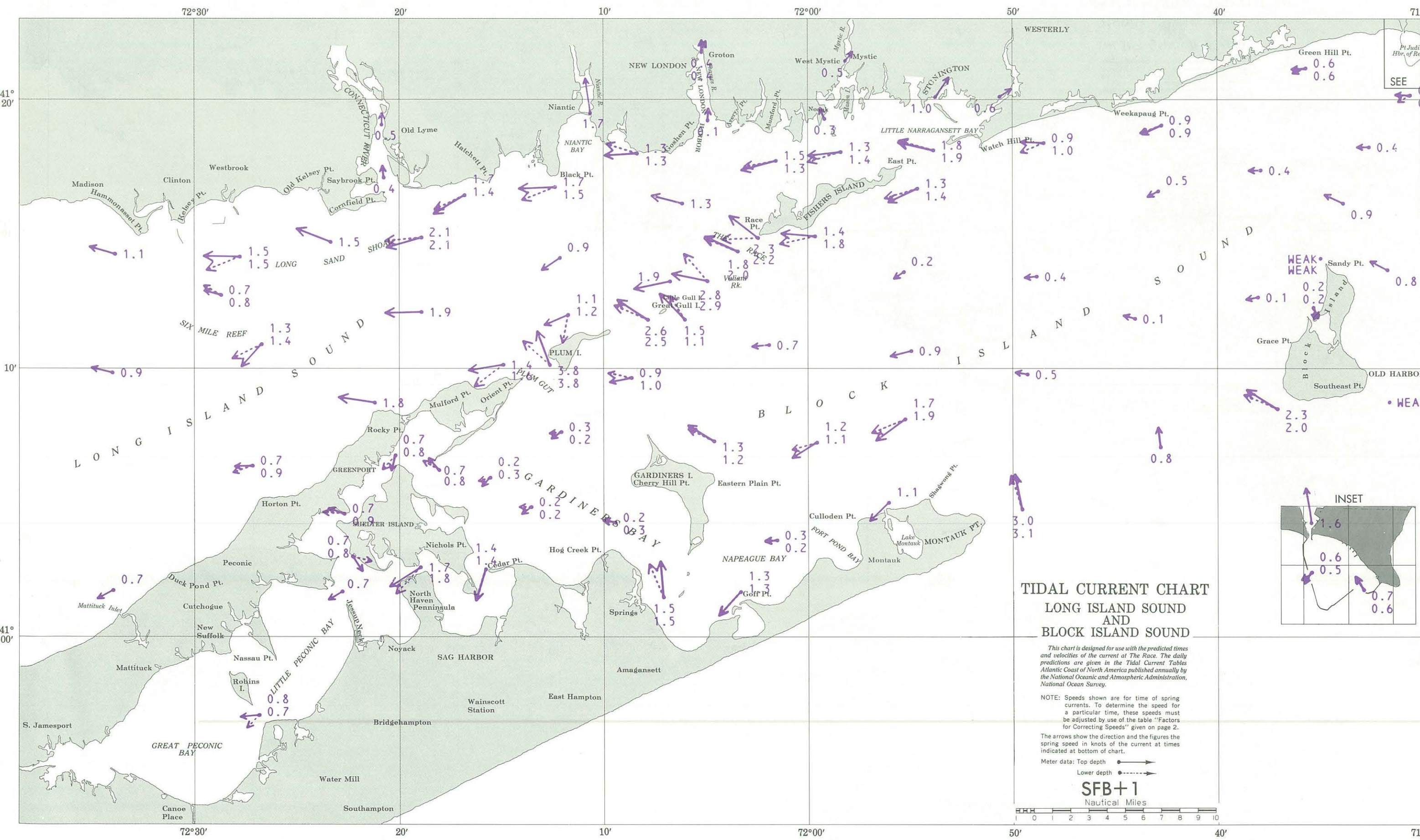
41°  
00'

40°  
50'

73° 40'	30'	20'	10'	73° 00'	50'
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See pages 34 and 35 for tidal current charts referred to "THROGS NECK."





**TIDAL CURRENT CHART  
LONG ISLAND SOUND  
AND  
BLOCK ISLAND SOUND**

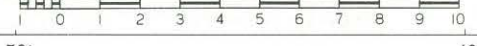
*This chart is designed for use with the predicted times and velocities of the current at The Race. The daily predictions are given in the Tidal Current Tables Atlantic Coast of North America published annually by the National Oceanic and Atmospheric Administration, National Ocean Survey.*

NOTE: Speeds shown are for time of spring currents. To determine the speed for a particular time, these speeds must be adjusted by use of the table "Factors for Correcting Speeds" given on page 2.

The arrows show the direction and the figures the spring speed in knots of the current at times indicated at bottom of chart.

Meter data: Top depth ———→  
Lower depth - - - - -→

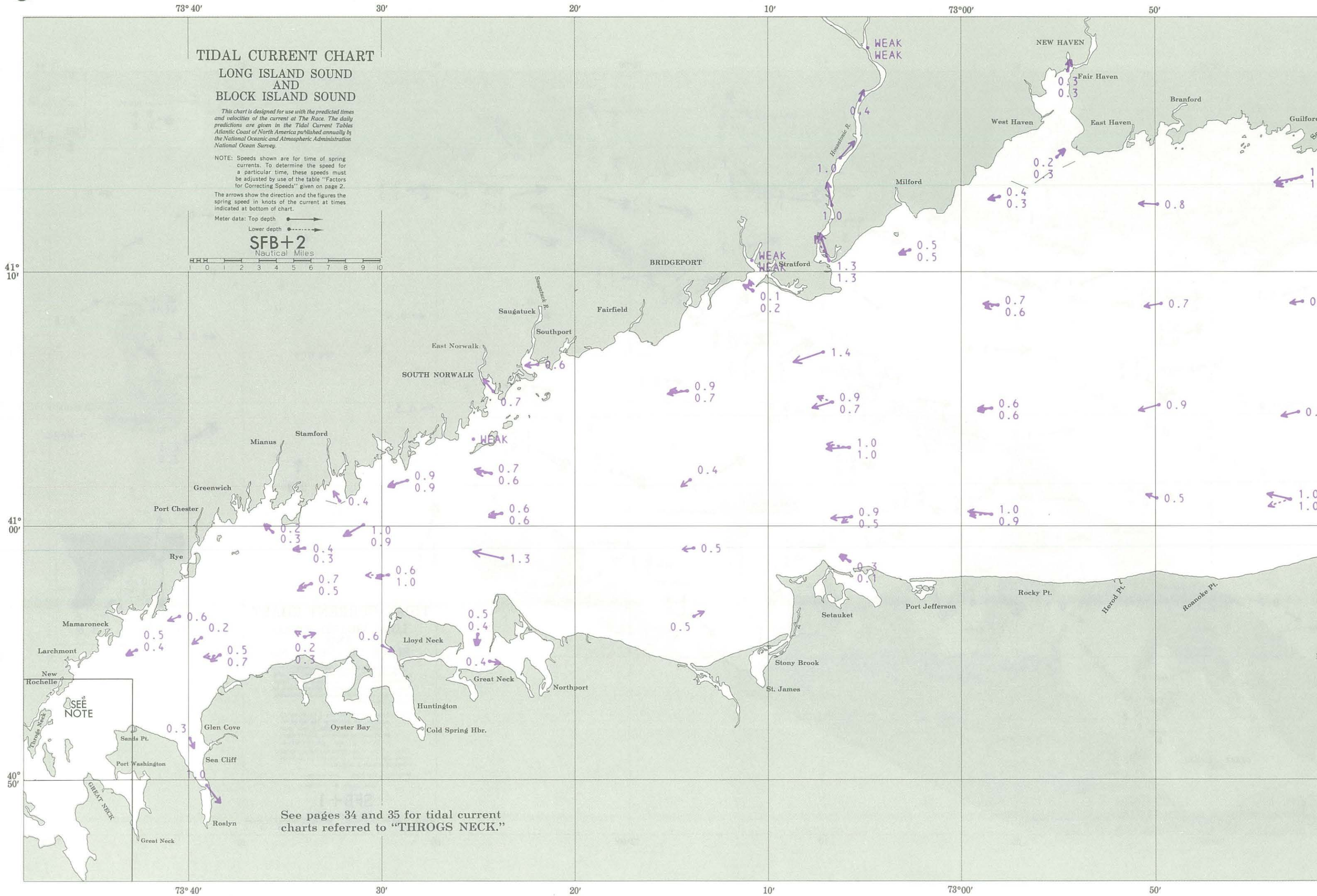
**SFB+1**  
Nautical Miles



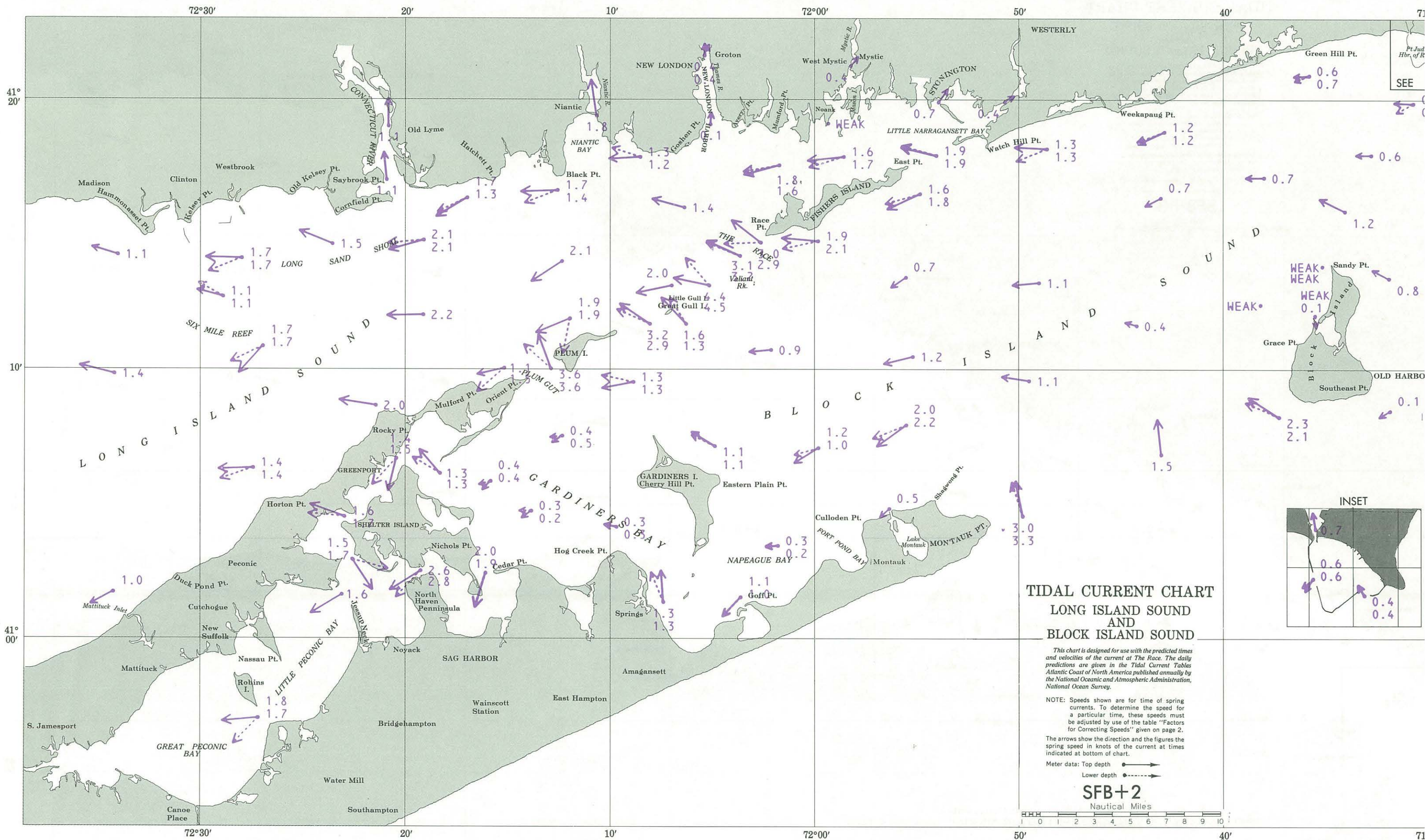
SFB+1

CUT ON LINE









SFB+2

CUT ON LINE



# TIDAL CURRENT CHART LONG ISLAND SOUND AND BLOCK ISLAND SOUND

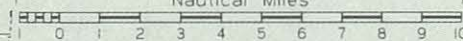
*This chart is designed for use with the predicted times and velocities of the current at The Race. The daily predictions are given in the Tidal Current Tables Atlantic Coast of North America published annually by the National Oceanic and Atmospheric Administration National Ocean Survey.*

NOTE: Speeds shown are for time of spring currents. To determine the speed for a particular time, these speeds must be adjusted by use of the table "Factors for Correcting Speeds" given on page 2.

The arrows show the direction and the figures the spring speed in knots of the current at times indicated at bottom of chart.

Meter data: Top depth ———→  
Lower depth - - - - -→

**SFB+3**  
Nautical Miles



41° 10'

41° 00'

40° 50'

73° 40'

30'

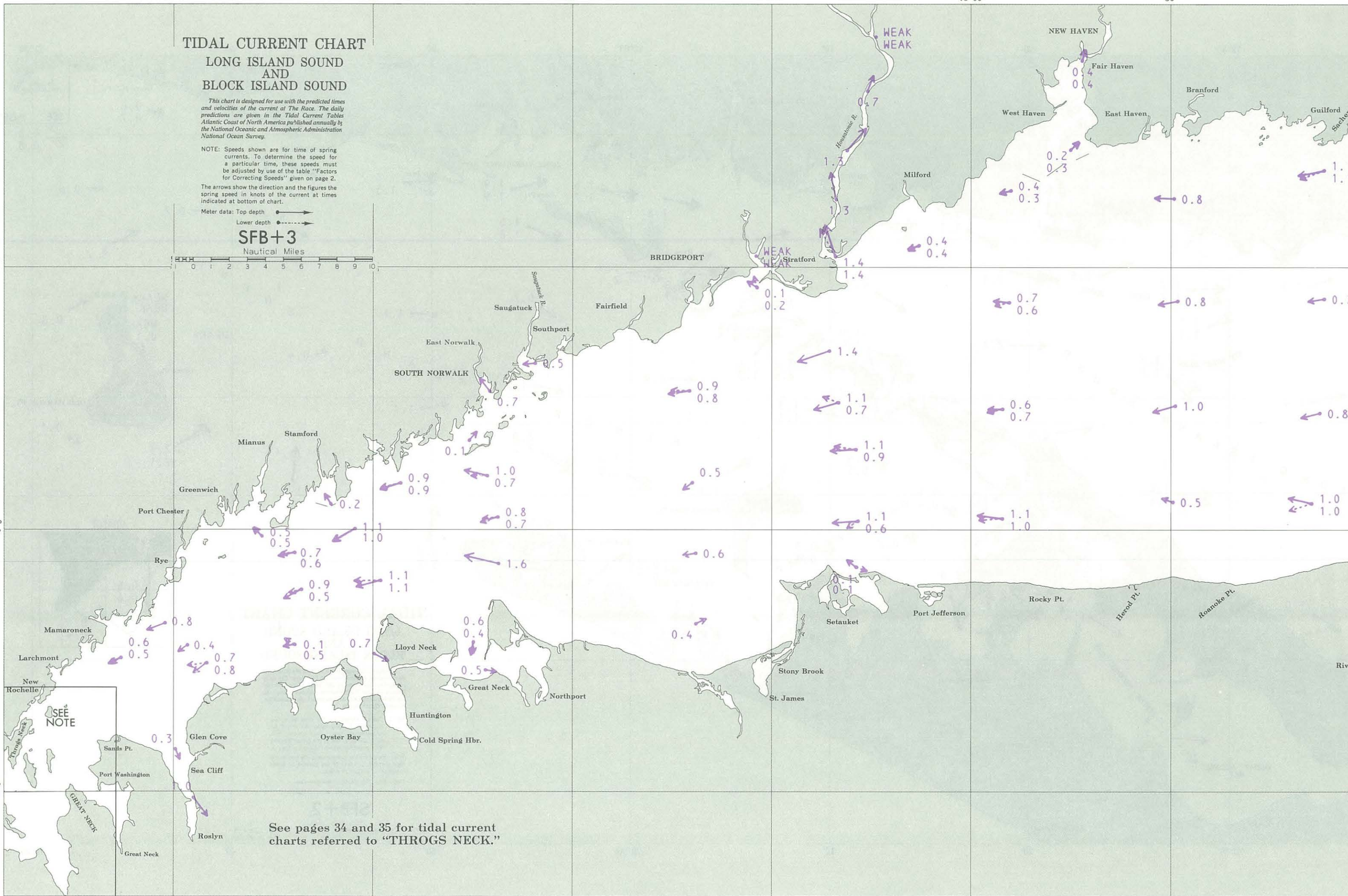
20'

10'

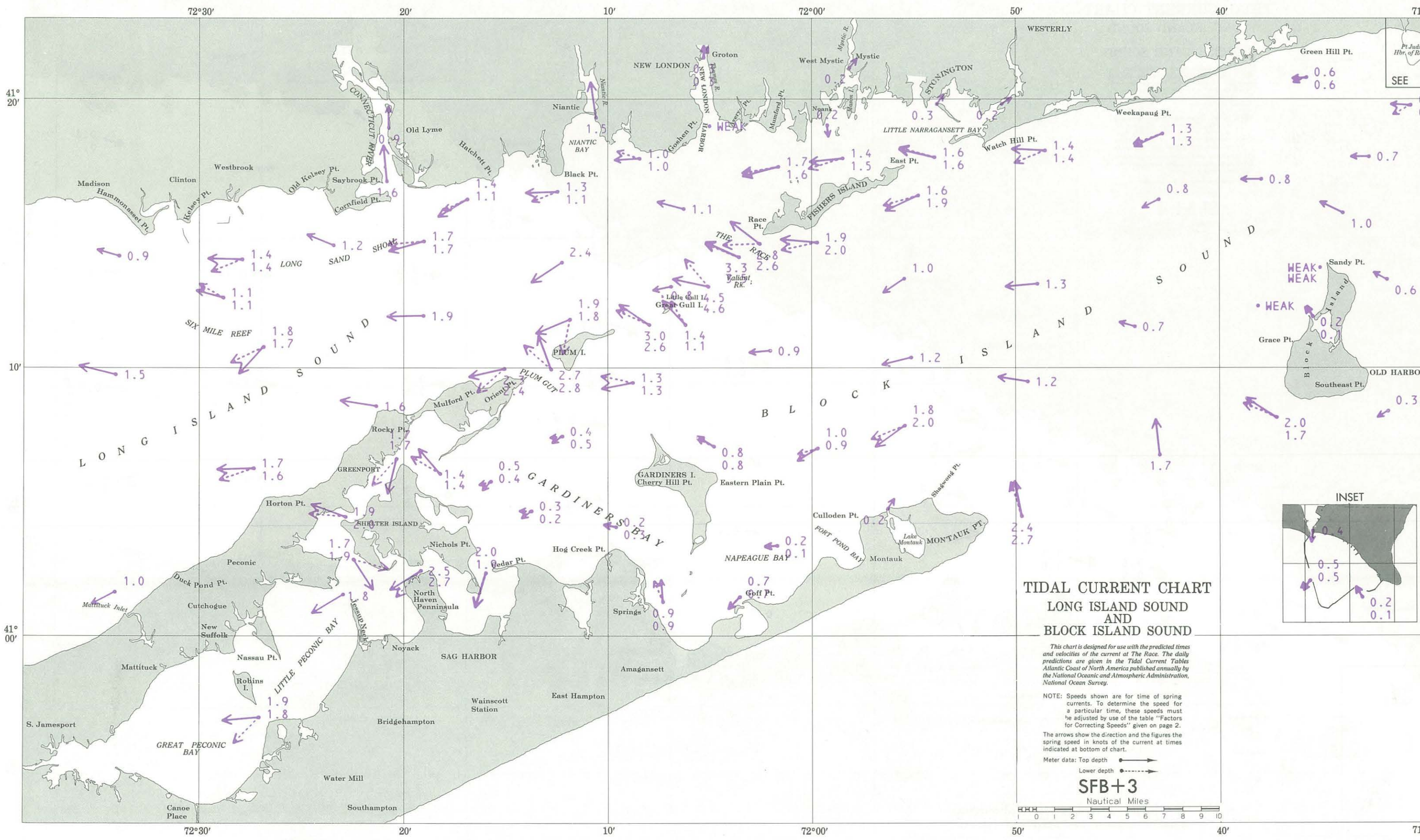
73° 00'

50'

See pages 34 and 35 for tidal current charts referred to "THROGS NECK."







# TIDAL CURRENT CHART LONG ISLAND SOUND AND BLOCK ISLAND SOUND

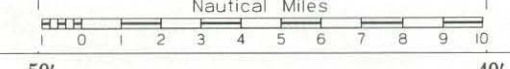
This chart is designed for use with the predicted times and velocities of the current at The Race. The daily predictions are given in the Tidal Current Tables Atlantic Coast of North America published annually by the National Oceanic and Atmospheric Administration, National Ocean Survey.

NOTE: Speeds shown are for time of spring currents. To determine the speed for a particular time, these speeds must be adjusted by use of the table "Factors for Correcting Speeds" given on page 2.

The arrows show the direction and the figures the spring speed in knots of the current at times indicated at bottom of chart.

Meter data: Top depth ————  
Lower depth - - - - -

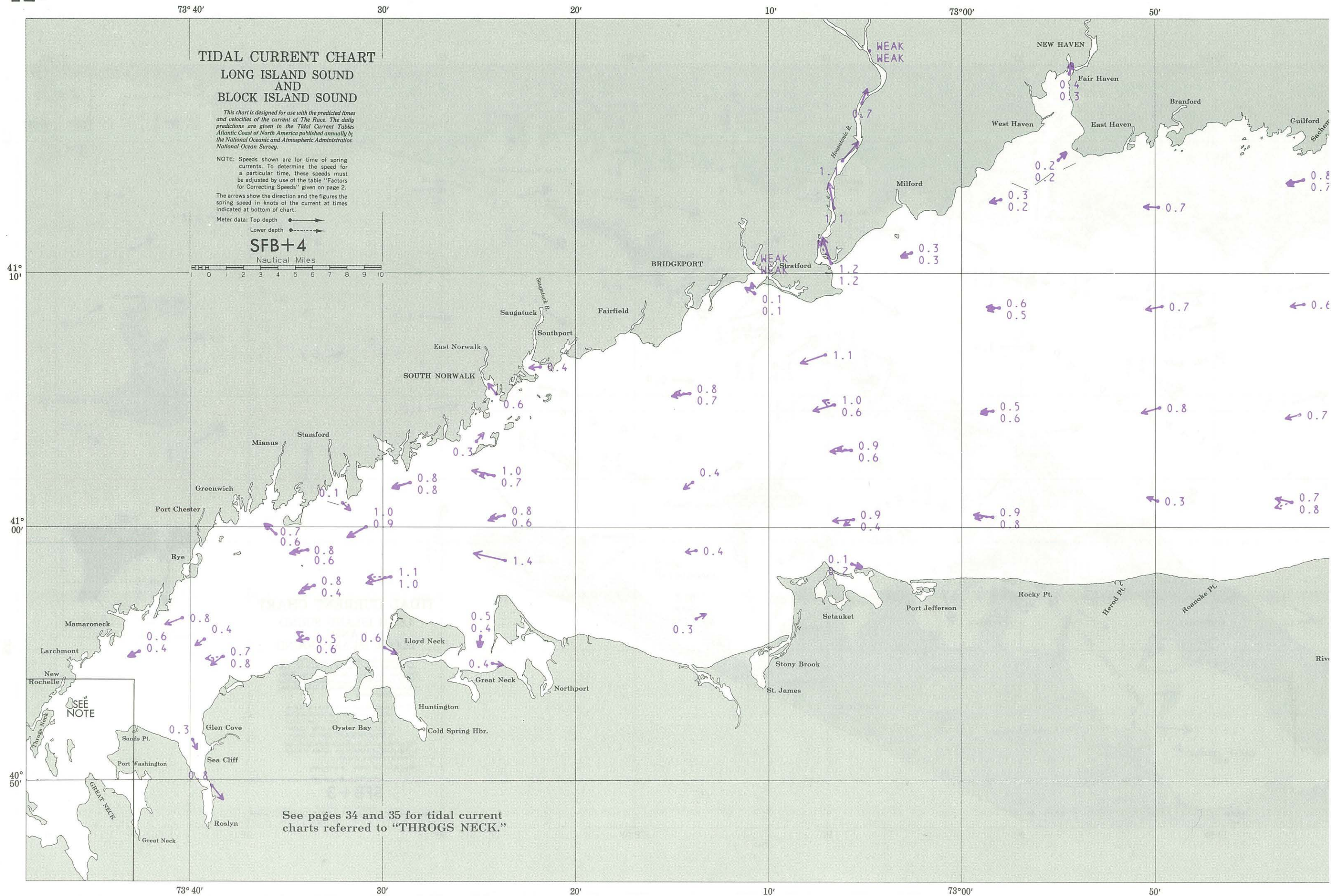
**SFB+3**  
Nautical Miles



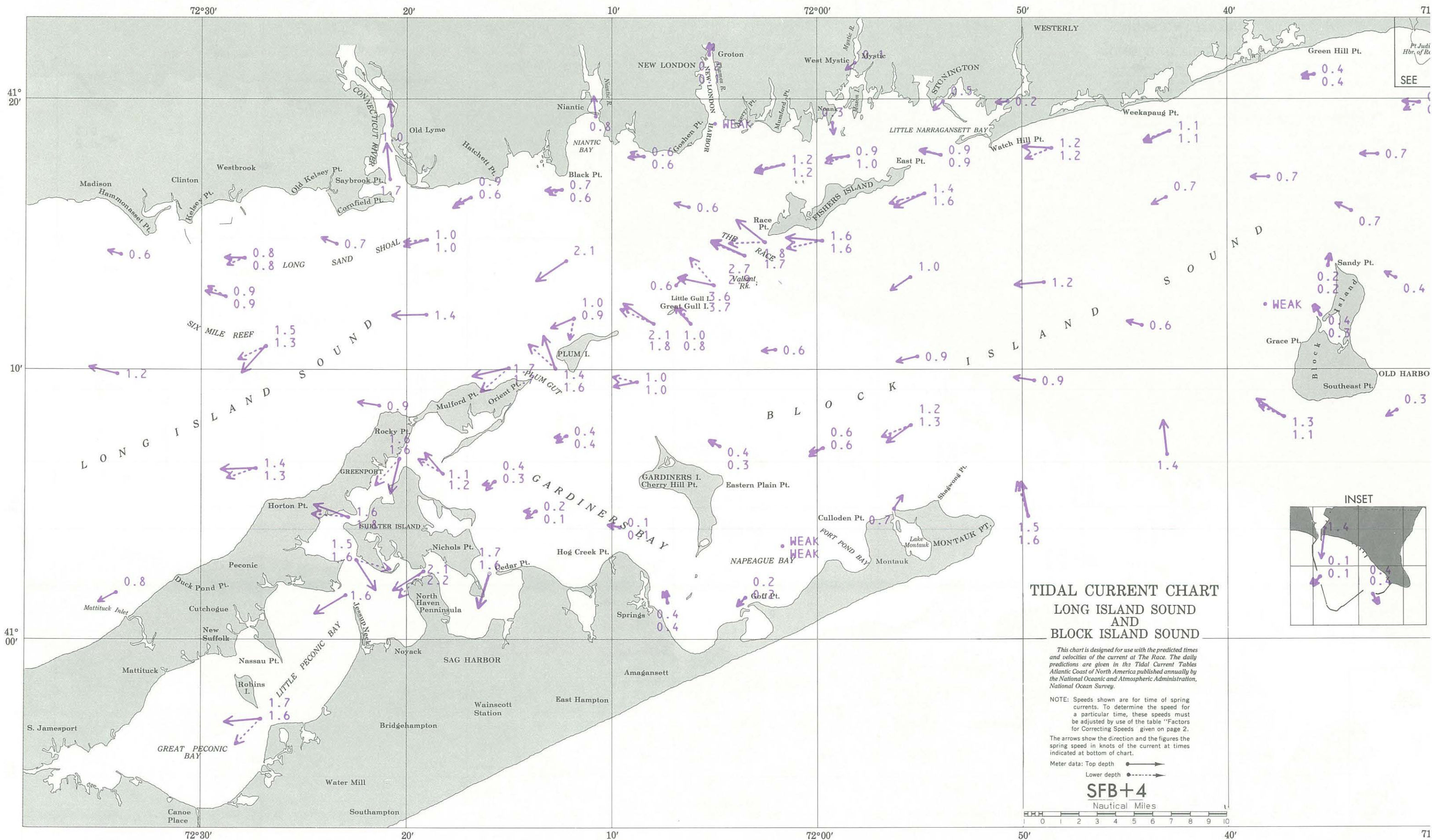
SFB+3

CUT ON LINE









# TIDAL CURRENT CHART LONG ISLAND SOUND AND BLOCK ISLAND SOUND

This chart is designed for use with the predicted times and velocities of the current at The Race. The daily predictions are given in the Tidal Current Tables Atlantic Coast of North America published annually by the National Oceanic and Atmospheric Administration, National Ocean Survey.

NOTE: Speeds shown are for time of spring currents. To determine the speed for a particular time, these speeds must be adjusted by use of the table "Factors for Correcting Speeds" given on page 2. The arrows show the direction and the figures the spring speed in knots of the current at times indicated at bottom of chart.

Meter data: Top depth ———→  
Lower depth - - - - -→

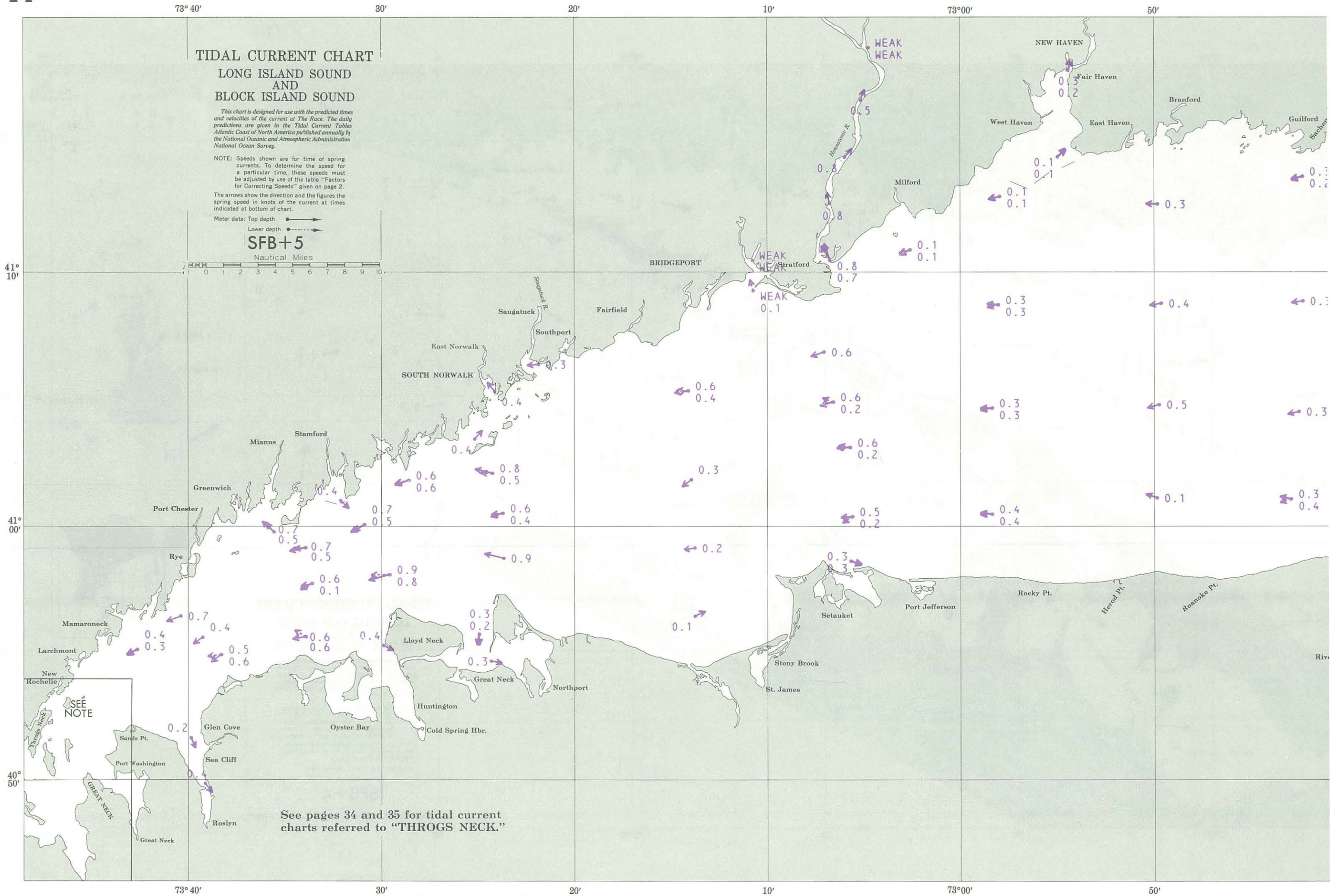
**SFB+4**  
Nautical Miles



SFR+4

CUT ON LINE











73° 40'                      30'                      20'                      10'                      73° 00'                      50'

# TIDAL CURRENT CHART LONG ISLAND SOUND AND BLOCK ISLAND SOUND

*This chart is designed for use with the predicted times and velocities of the current at The Race. The daily predictions are given in the Tidal Current Tables Atlantic Coast of North America published annually by the National Oceanic and Atmospheric Administration National Ocean Survey.*

NOTE: Speeds shown are for time of spring currents. To determine the speed for a particular time, these speeds must be adjusted by use of the table "Factors for Correcting Speeds" given on page 2. The arrows show the direction and the figures the spring speed in knots of the current at times indicated at bottom of chart.

Meter data: Top depth ———→  
Lower depth - - - - -→

**SEB**

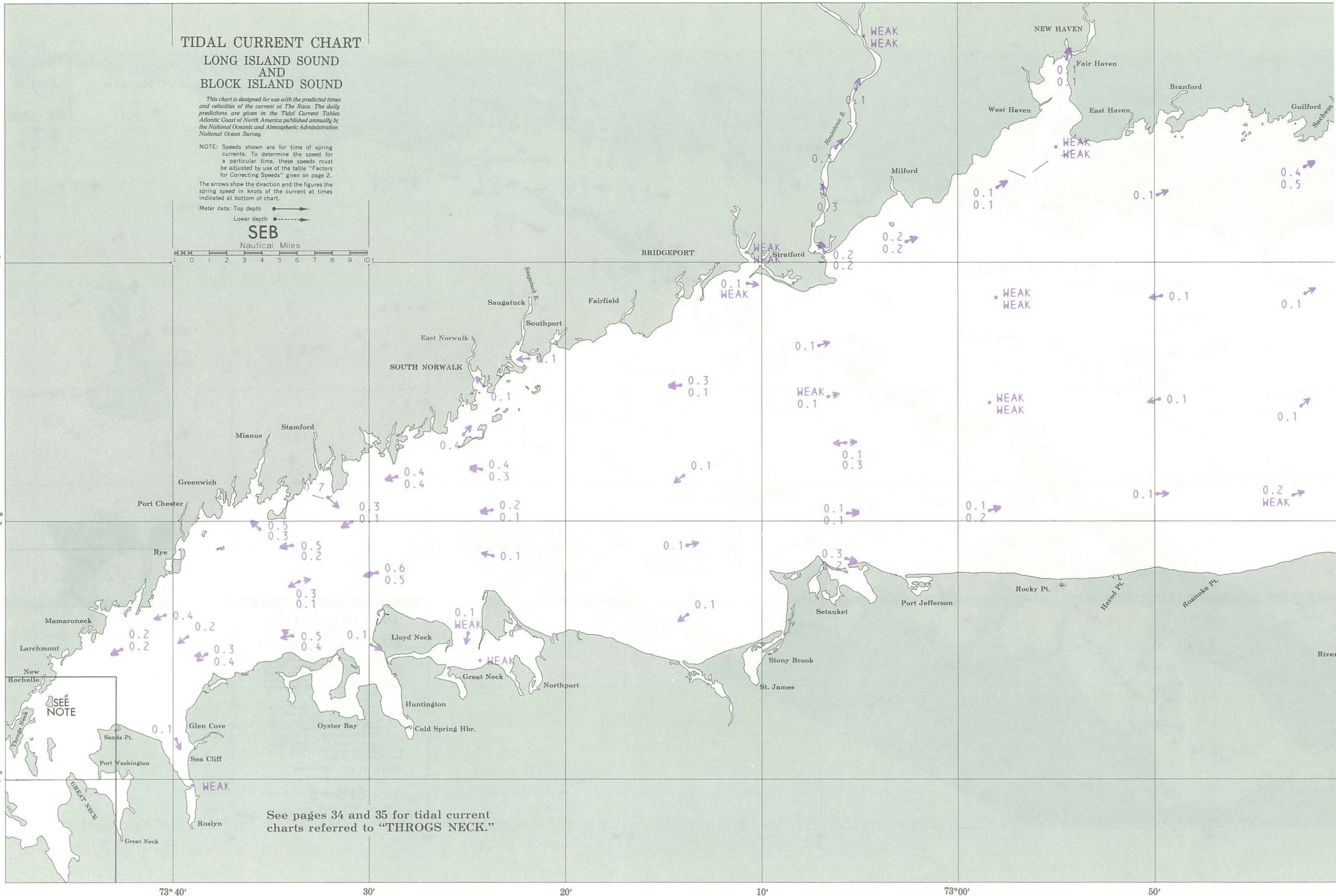
Nautical Miles



41° 10'

41° 00'

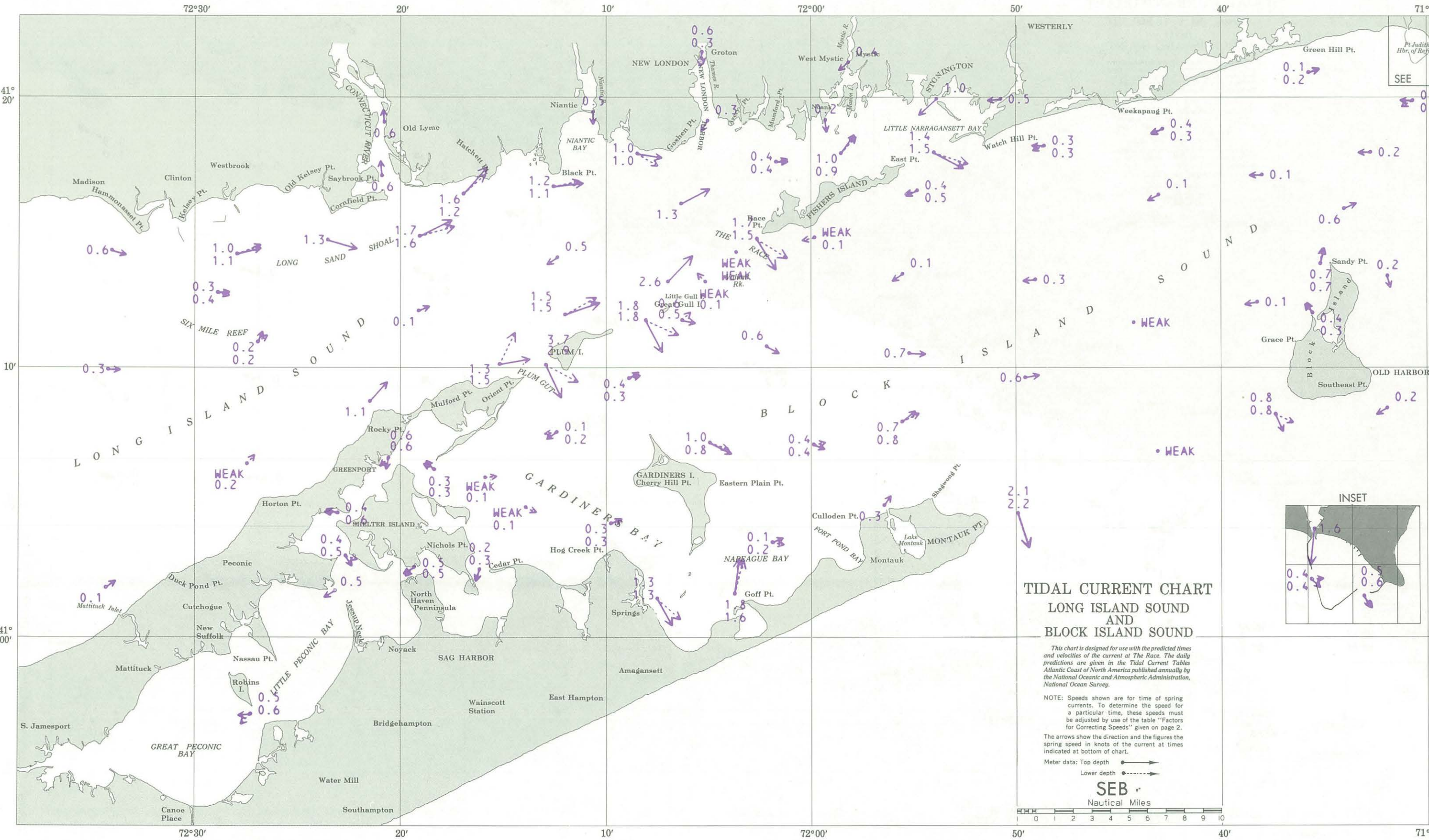
40° 50'



See pages 34 and 35 for tidal current charts referred to "THROGS NECK."

73° 40'                      30'                      20'                      10'                      73° 00'                      50'





# TIDAL CURRENT CHART LONG ISLAND SOUND AND BLOCK ISLAND SOUND

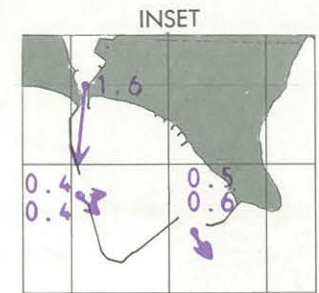
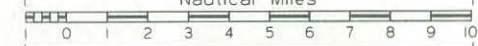
This chart is designed for use with the predicted times and velocities of the current at The Race. The daily predictions are given in the Tidal Current Tables Atlantic Coast of North America published annually by the National Oceanic and Atmospheric Administration, National Ocean Survey.

NOTE: Speeds shown are for time of spring currents. To determine the speed for a particular time, these speeds must be adjusted by use of the table "Factors for Correcting Speeds" given on page 2.

The arrows show the direction and the figures the spring speed in knots of the current at times indicated at bottom of chart.

Meter data: Top depth (solid line), Lower depth (dashed line).

SEB  
Nautical Miles



SEB

CUT ON LINE



73° 40' 30' 20' 10' 73° 00' 50'

# TIDAL CURRENT CHART LONG ISLAND SOUND AND BLOCK ISLAND SOUND

This chart is designed for use with the predicted times and velocities of the current at The Race. The daily predictions are given in the Tidal Current Tables Atlantic Coast of North America published annually by the National Oceanic and Atmospheric Administration National Ocean Survey.

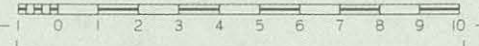
NOTE: Speeds shown are for time of spring currents. To determine the speed for a particular time, these speeds must be adjusted by use of the table "Factors for Correcting Speeds" given on page 2.

The arrows show the direction and the figures the spring speed in knots of the current at times indicated at bottom of chart.

Meter data: Top depth ———→  
Lower depth ·····→

SEB+1

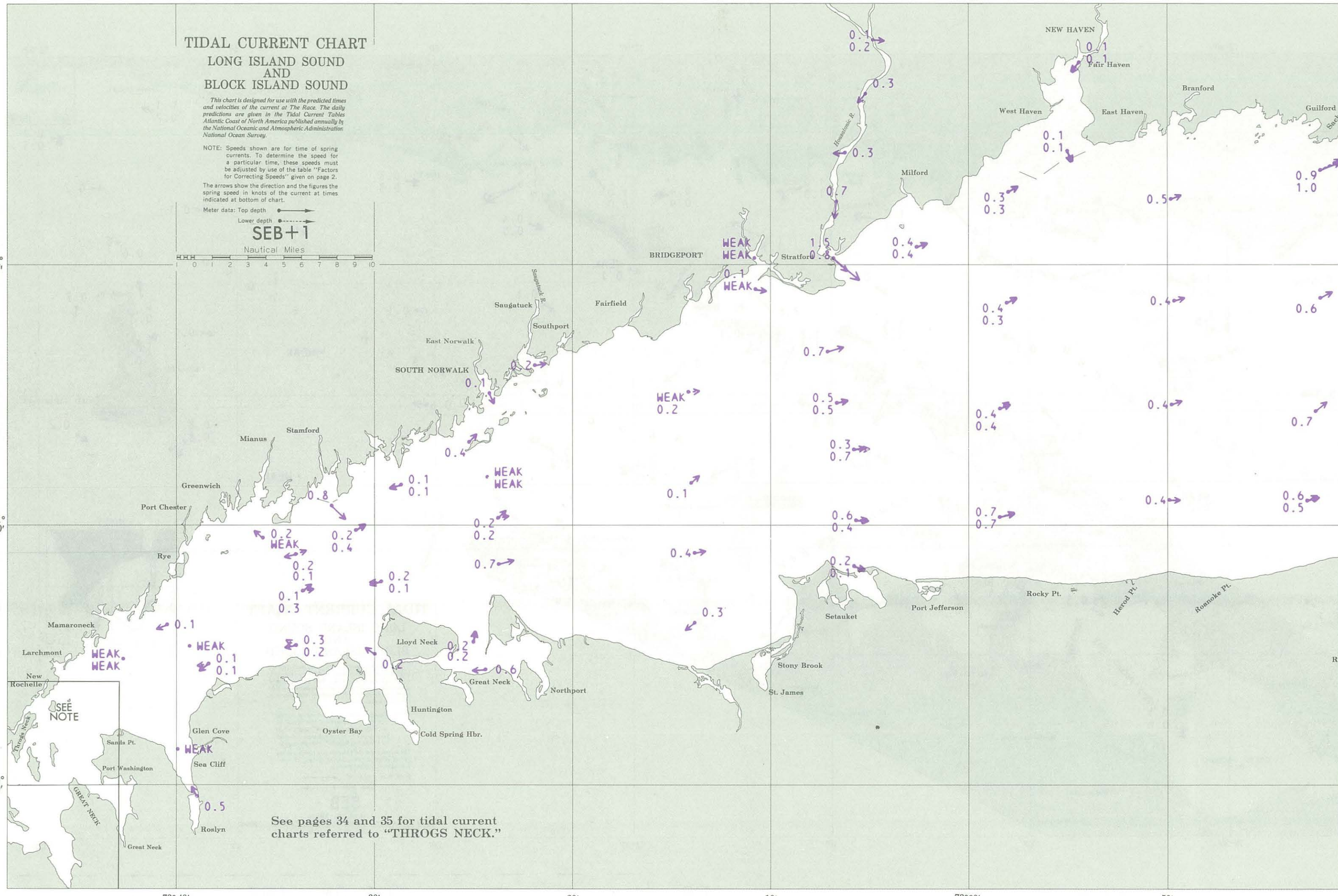
Nautical Miles



41° 10'

41° 00'

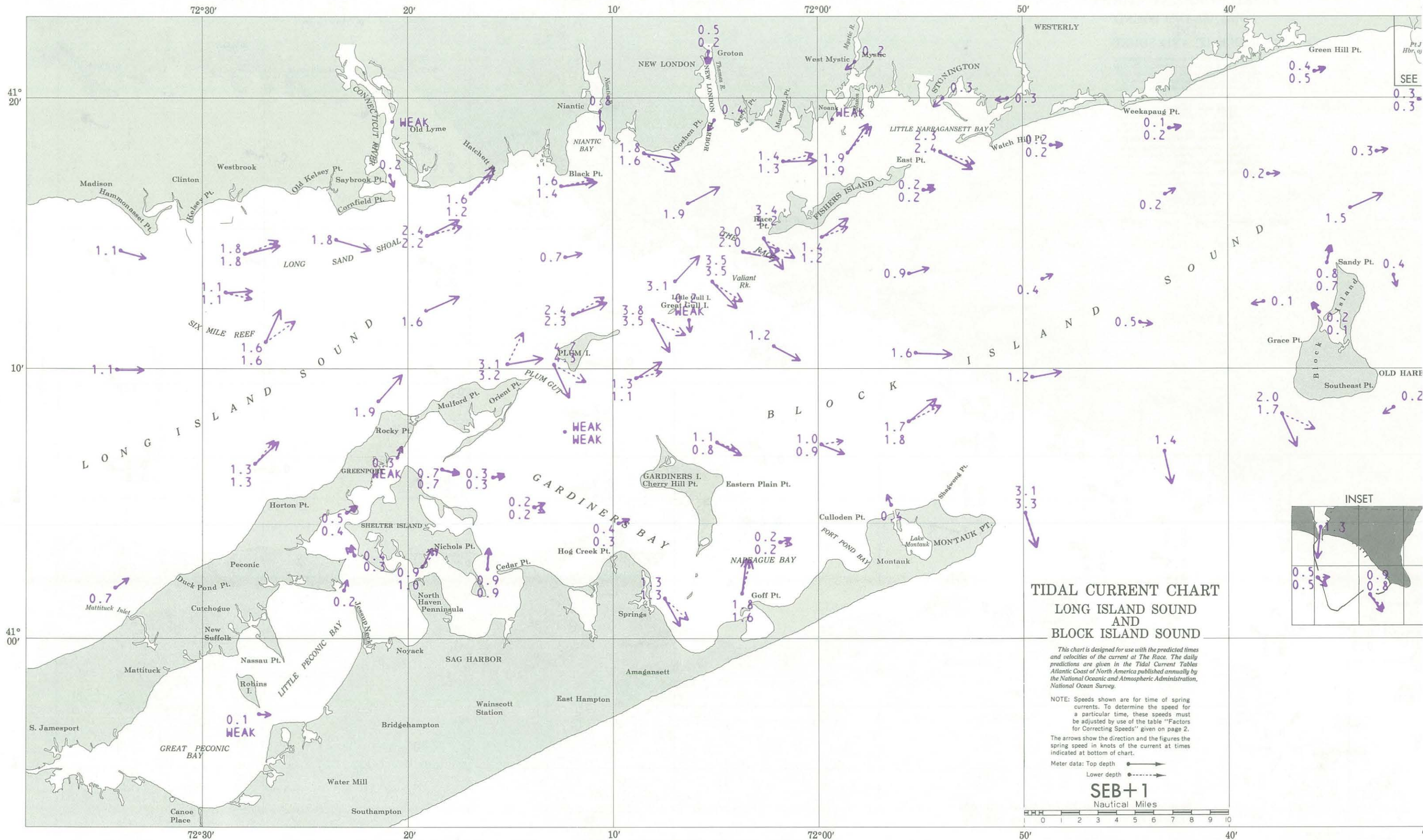
40° 50'



See pages 34 and 35 for tidal current charts referred to "THROGS NECK."

73° 40' 30' 20' 10' 73° 00' 50'







73° 40'

30'

20'

10'

73° 00'

50'

7

# TIDAL CURRENT CHART LONG ISLAND SOUND AND BLOCK ISLAND SOUND

This chart is designed for use with the predicted times and velocities of the current at The Race. The daily predictions are given in the Tidal Current Tables Atlantic Coast of North America published annually by the National Oceanic and Atmospheric Administration National Ocean Survey.

NOTE: Speeds shown are for time of spring currents. To determine the speed for a particular time, these speeds must be adjusted by use of the table "Factors for Correcting Speeds" given on page 2.

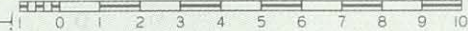
The arrows show the direction and the figures the spring speed in knots of the current at times indicated at bottom of chart.

Meter data: Top depth ———→

Lower depth - - - - -→

## SEB+2

Nautical Miles



41° 10'

41° 00'

40° 50'

73° 40'

30'

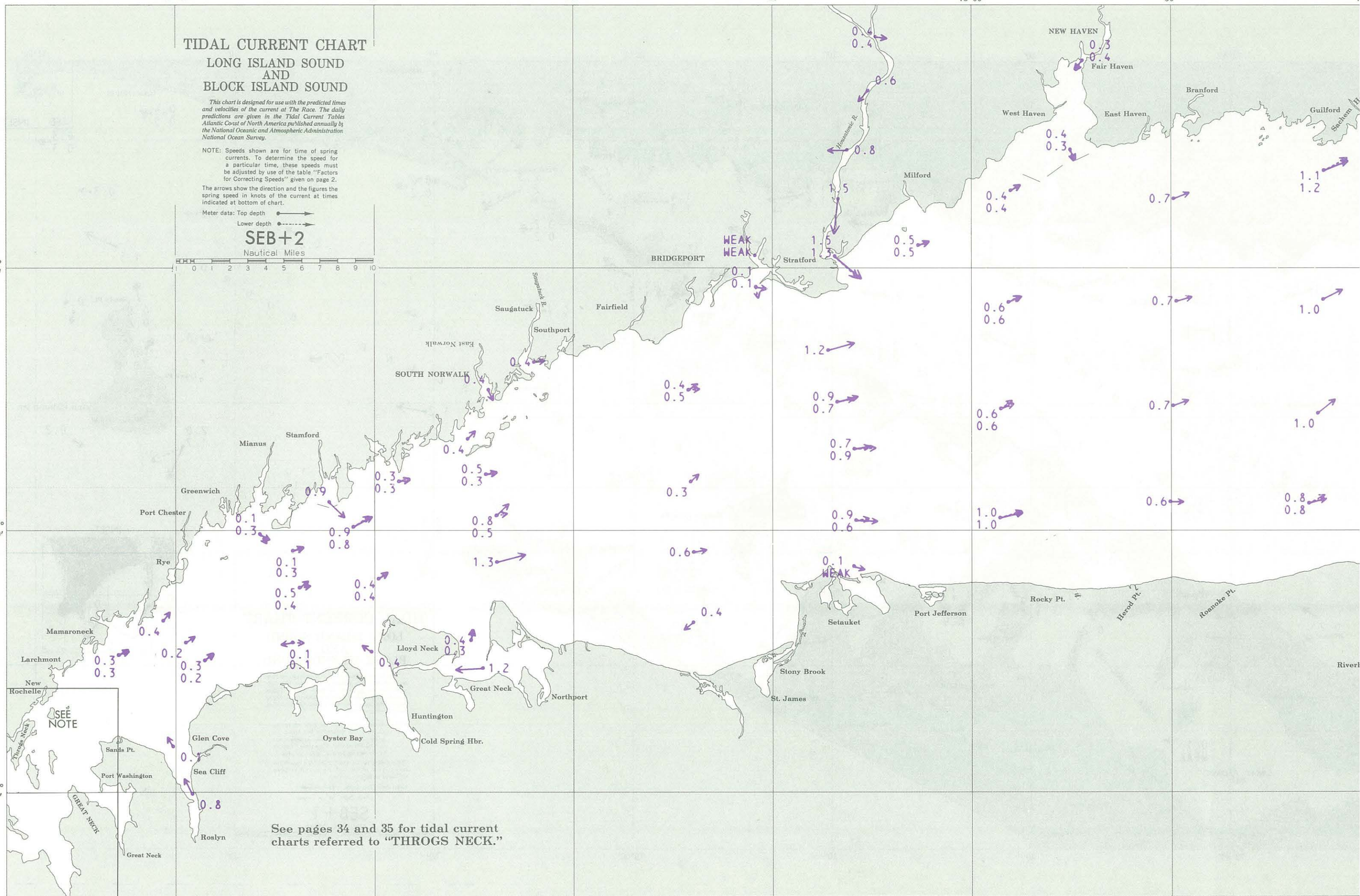
20'

10'

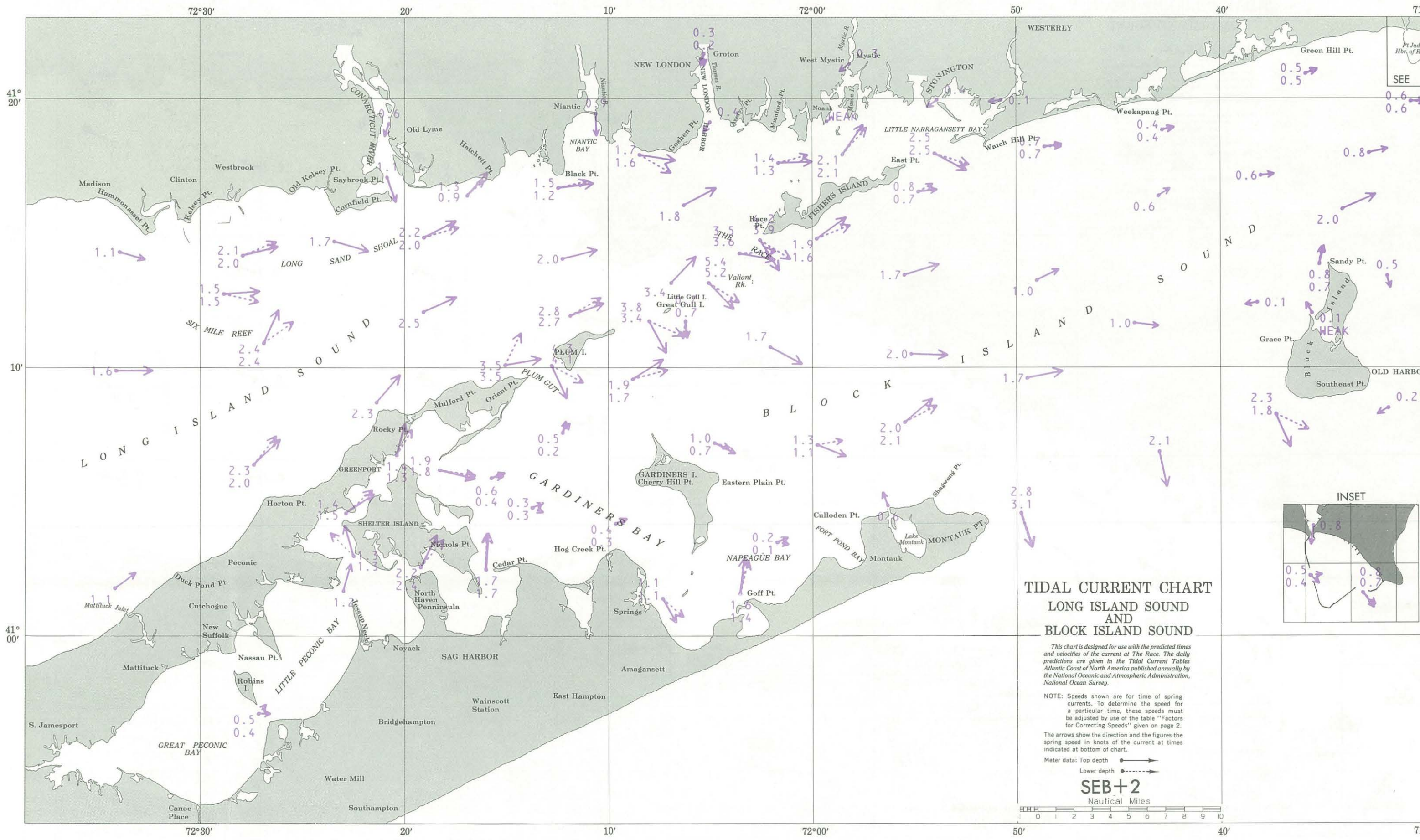
73° 00'

50'

See pages 34 and 35 for tidal current charts referred to "THROGS NECK."







# TIDAL CURRENT CHART LONG ISLAND SOUND AND BLOCK ISLAND SOUND

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NOTE: Speeds shown are for time of spring currents. To determine the speed for a particular time, these speeds must be adjusted by use of the table "Factors for Correcting Speeds" given on page 2.

The arrows show the direction and the figures the spring speed in knots of the current at times indicated at bottom of chart.

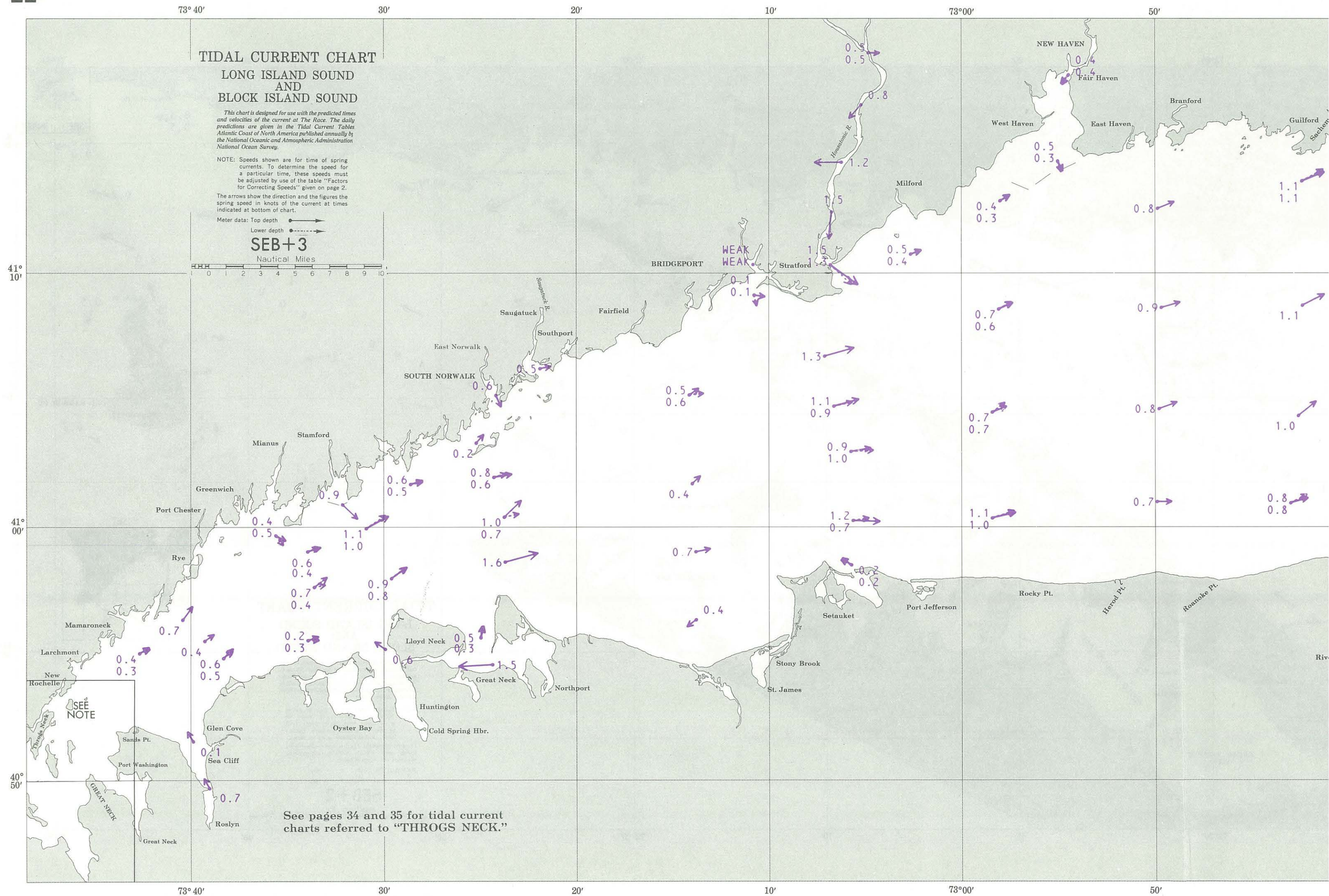
Meter data: Top depth ———>  
Lower depth - - - - ->

SEB+2

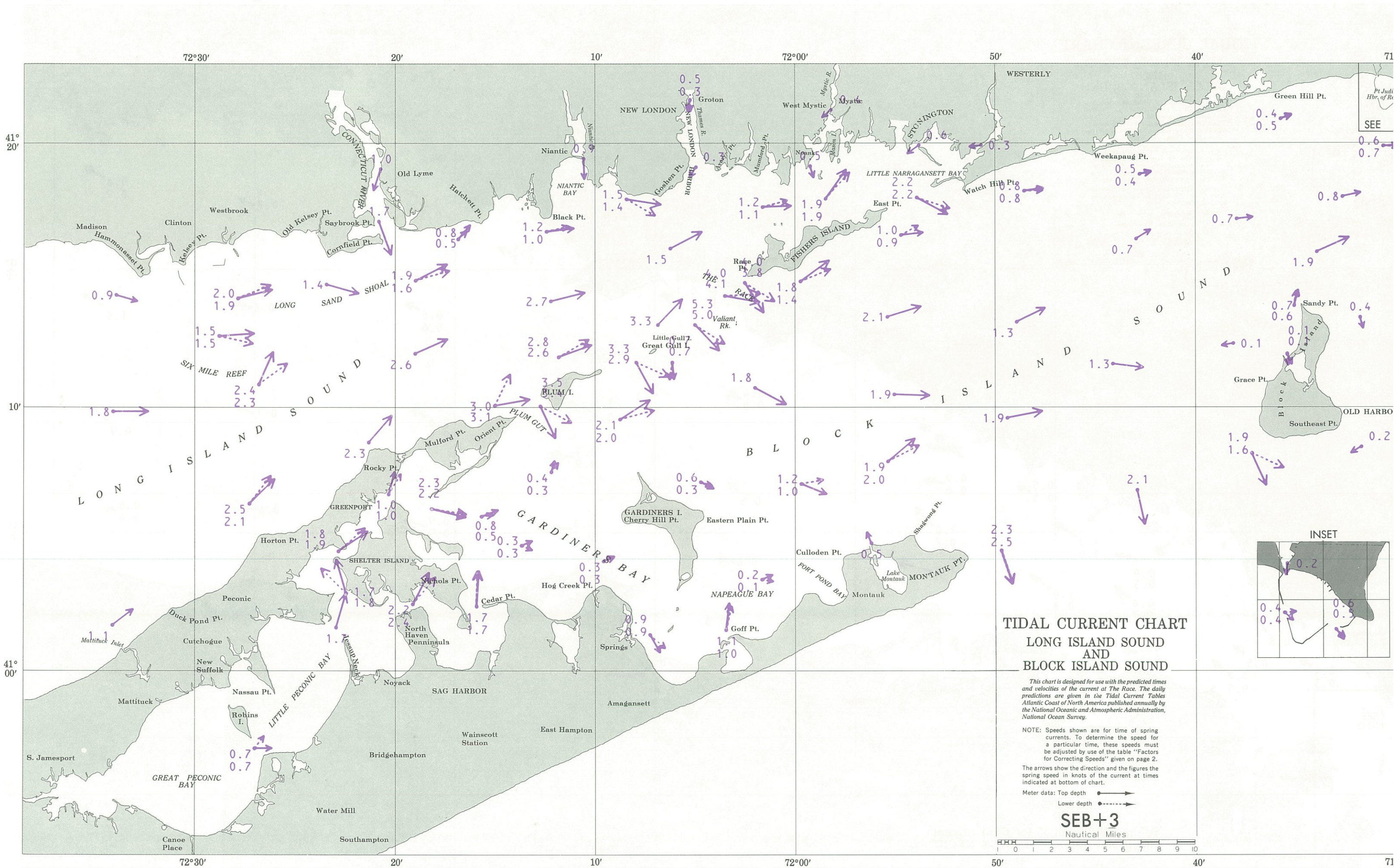
Nautical Miles



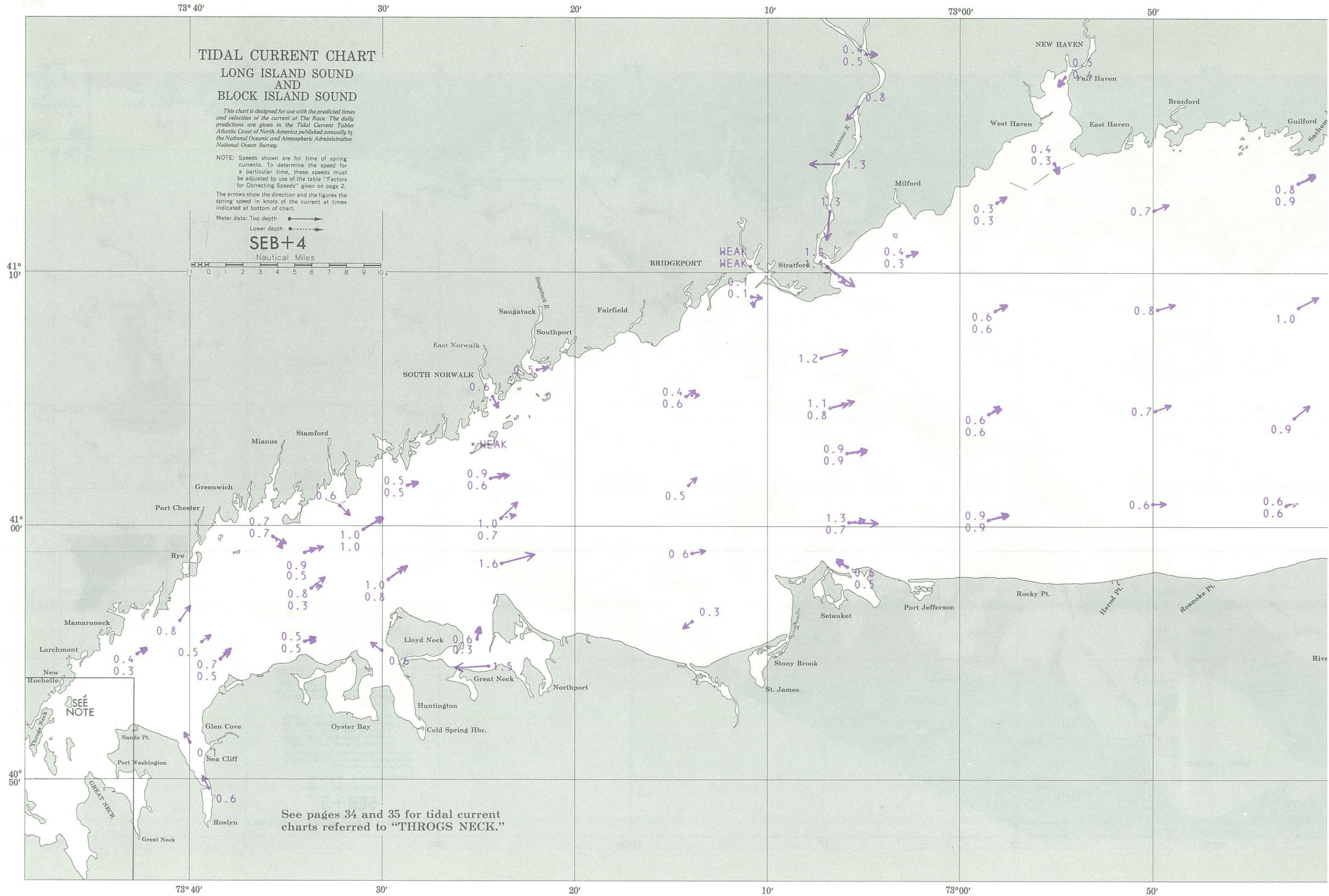




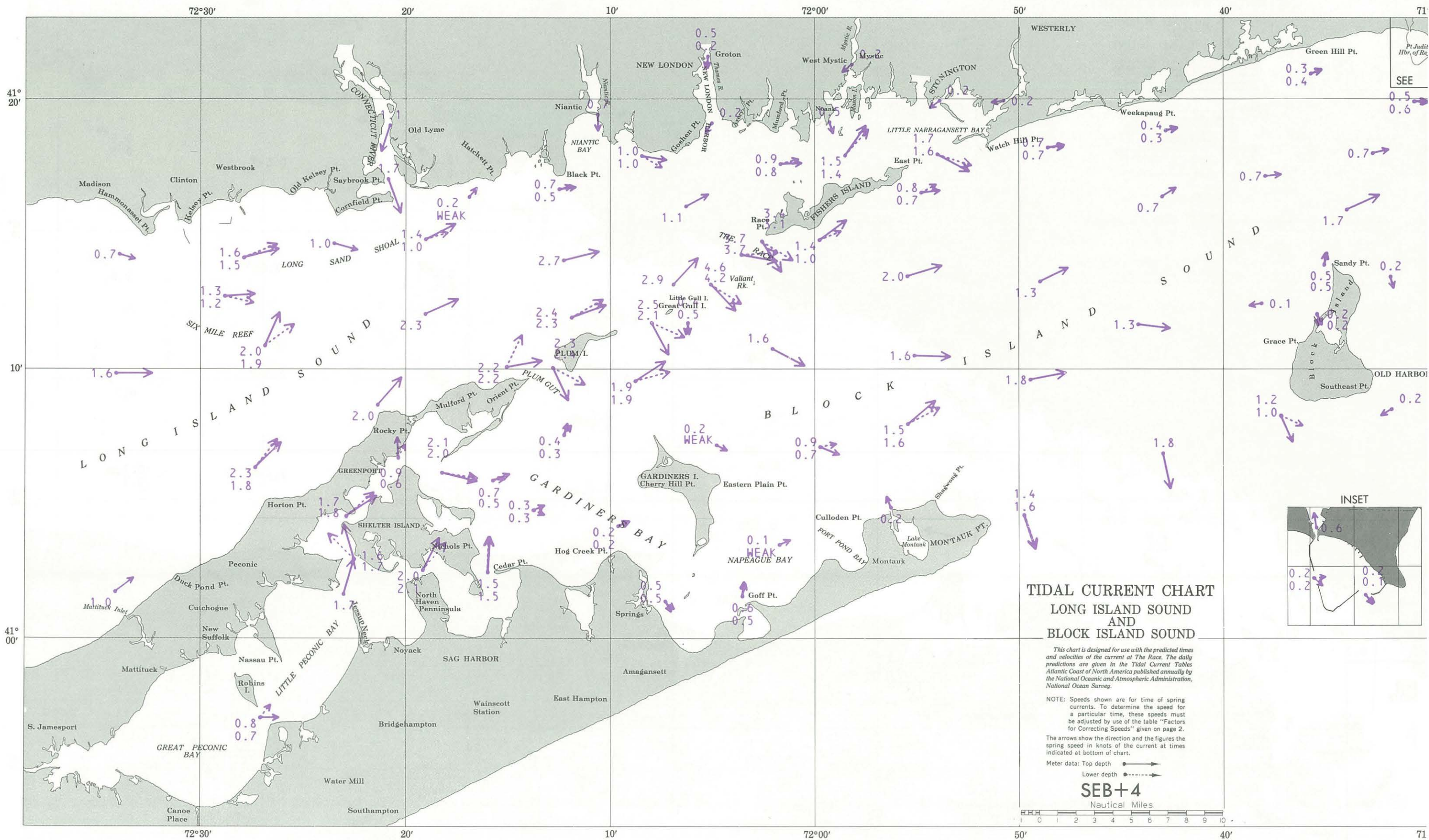














73° 40'

30'

20'

10'

73° 00'

50'

# TIDAL CURRENT CHART LONG ISLAND SOUND AND BLOCK ISLAND SOUND

This chart is designed for use with the predicted times and velocities of the current at The Race. The daily predictions are given in the Tidal Current Tables Atlantic Coast of North America published annually by the National Oceanic and Atmospheric Administration National Ocean Survey.

NOTE: Speeds shown are for time of spring currents. To determine the speed for a particular time, these speeds must be adjusted by use of the table "Factors for Correcting Speeds" given on page 2.

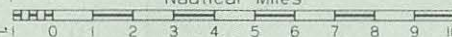
The arrows show the direction and the figures the spring speed in knots of the current at times indicated at bottom of chart.

Meter data: Top depth

Lower depth

SEB+5

Nautical Miles



41° 10'

41° 00'

40° 50'

73° 40'

30'

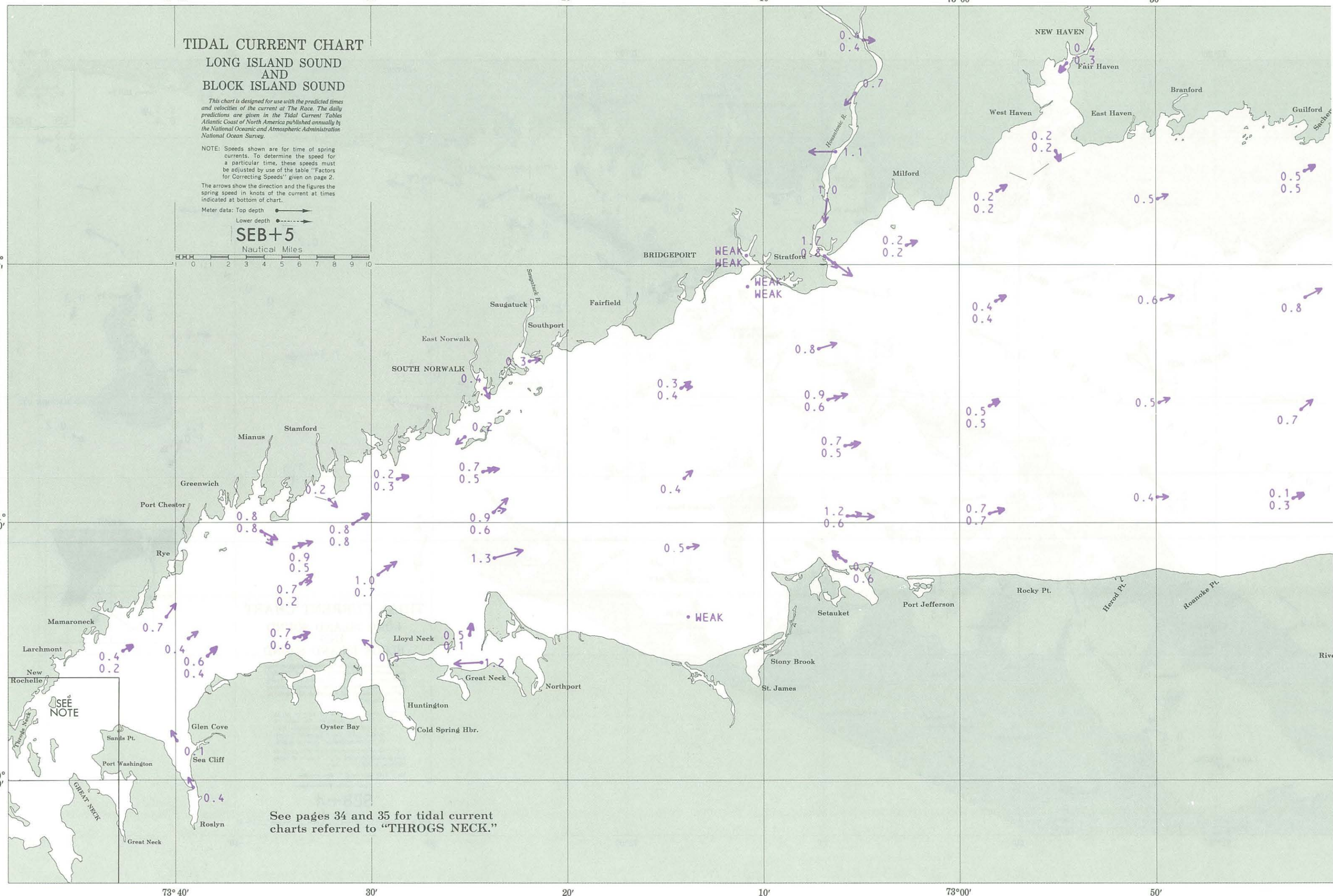
20'

10'

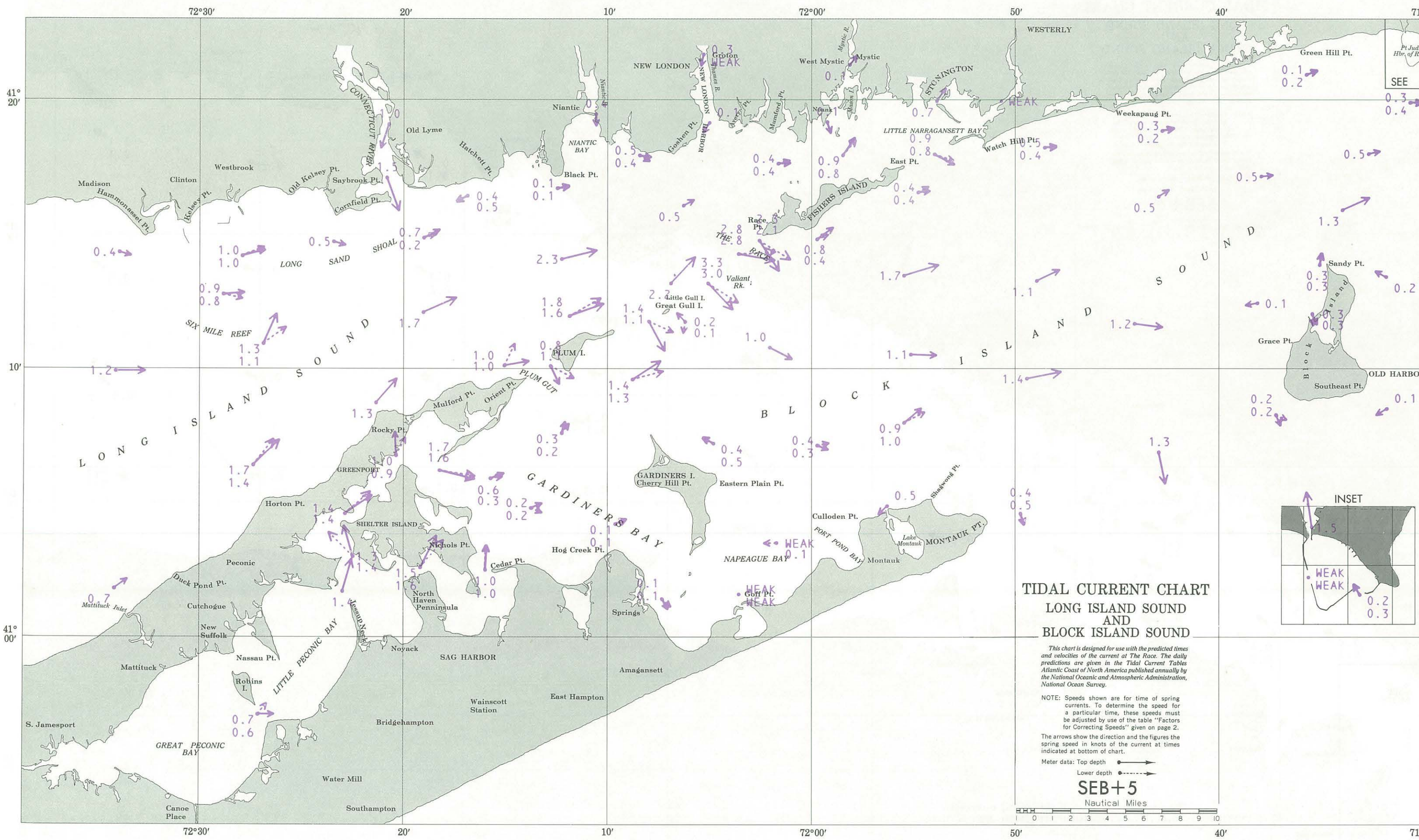
73° 00'

50'

See pages 34 and 35 for tidal current charts referred to "THROGS NECK."







**TIDAL CURRENT CHART  
LONG ISLAND SOUND  
AND  
BLOCK ISLAND SOUND**

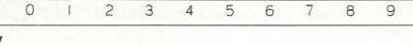
*This chart is designed for use with the predicted times and velocities of the current at The Race. The daily predictions are given in the Tidal Current Tables Atlantic Coast of North America published annually by the National Oceanic and Atmospheric Administration, National Ocean Survey.*

NOTE: Speeds shown are for time of spring currents. To determine the speed for a particular time, these speeds must be adjusted by use of the table "Factors for Correcting Speeds" given on page 2.

The arrows show the direction and the figures the spring speed in knots of the current at times indicated at bottom of chart.

Meter data: Top depth ———> Lower depth - - - - ->

**SEB+5**  
Nautical Miles





73° 40' 30' 20' 10' 73° 00' 50'

# TIDAL CURRENT CHART LONG ISLAND SOUND AND BLOCK ISLAND SOUND

This chart is designed for use with the predicted times and velocities of the current at The Race. The daily predictions are given in the Tidal Current Tables Atlantic Coast of North America published annually by the National Oceanic and Atmospheric Administration National Ocean Survey.

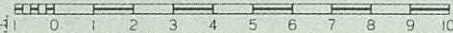
NOTE: Speeds shown are for time of spring currents. To determine the speed for a particular time, these speeds must be adjusted by use of the table "Factors for Correcting Speeds" given on page 2.

The arrows show the direction and the figures the spring speed in knots of the current at times indicated at bottom of chart.

Meter data: Top depth  
Lower depth

SEB+6

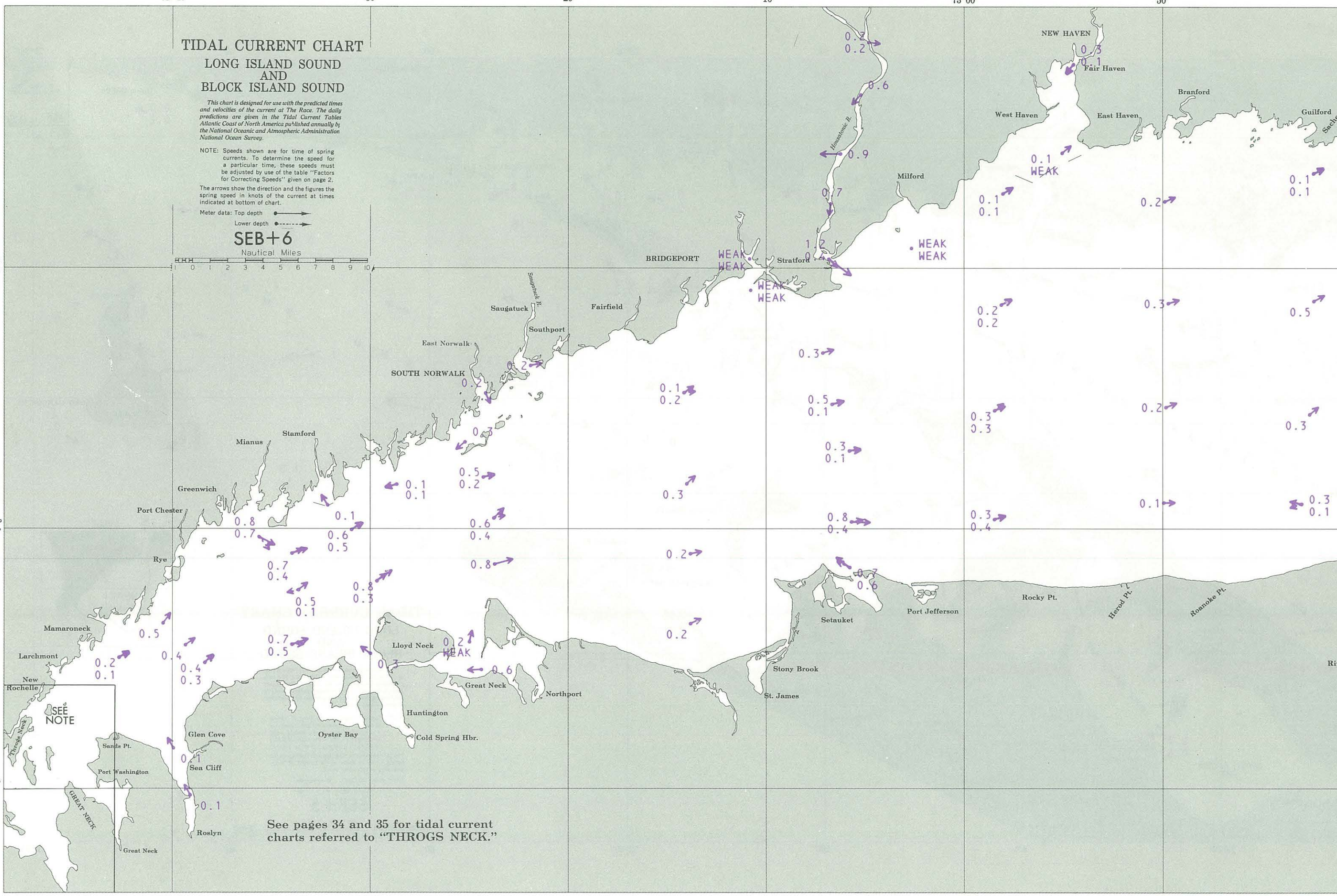
Nautical Miles



41° 10'

41° 00'

40° 50'

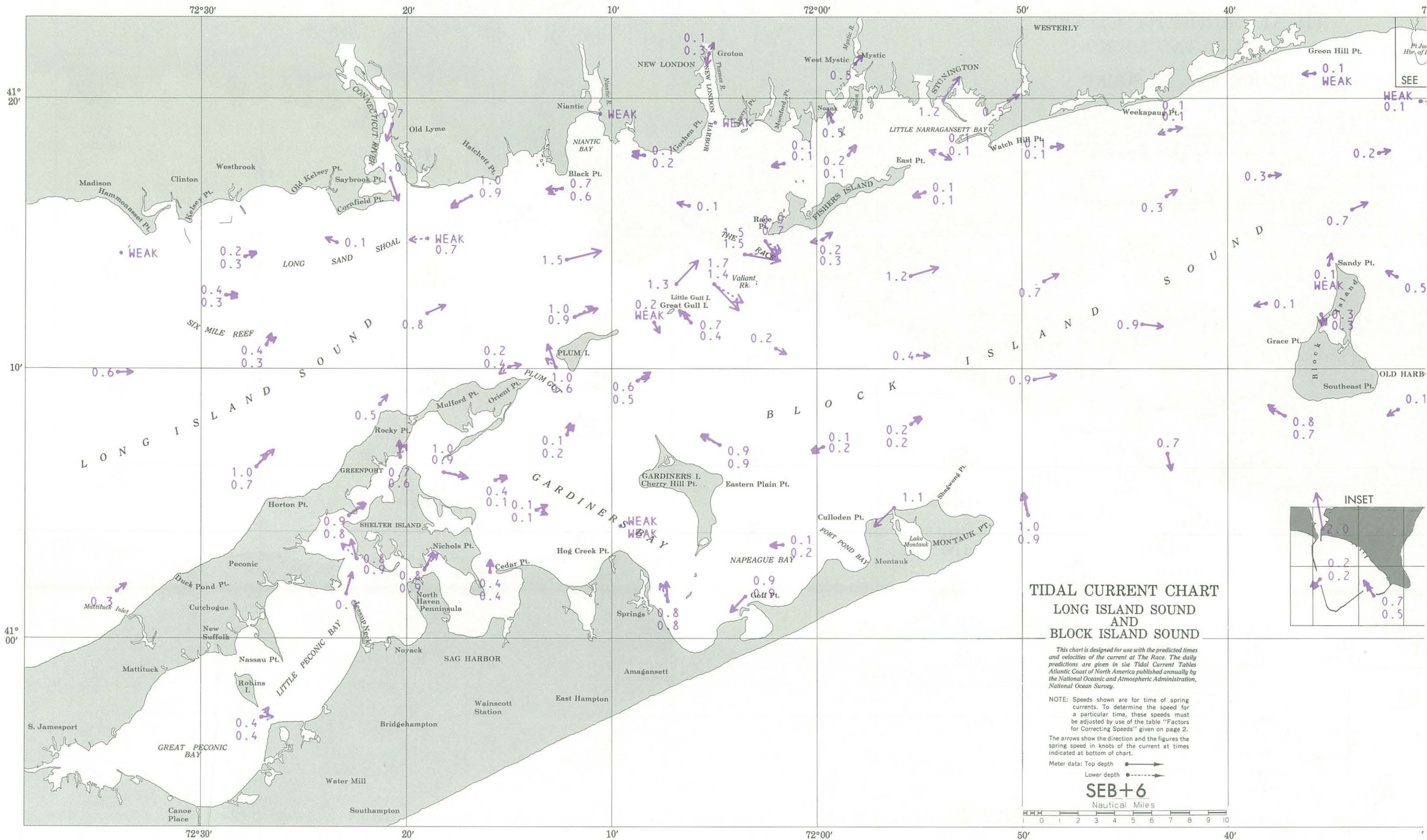


SEE NOTE

See pages 34 and 35 for tidal current charts referred to "THROGS NECK."

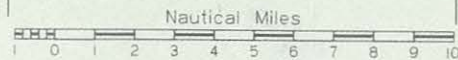
73° 40' 30' 20' 10' 73° 00' 50'



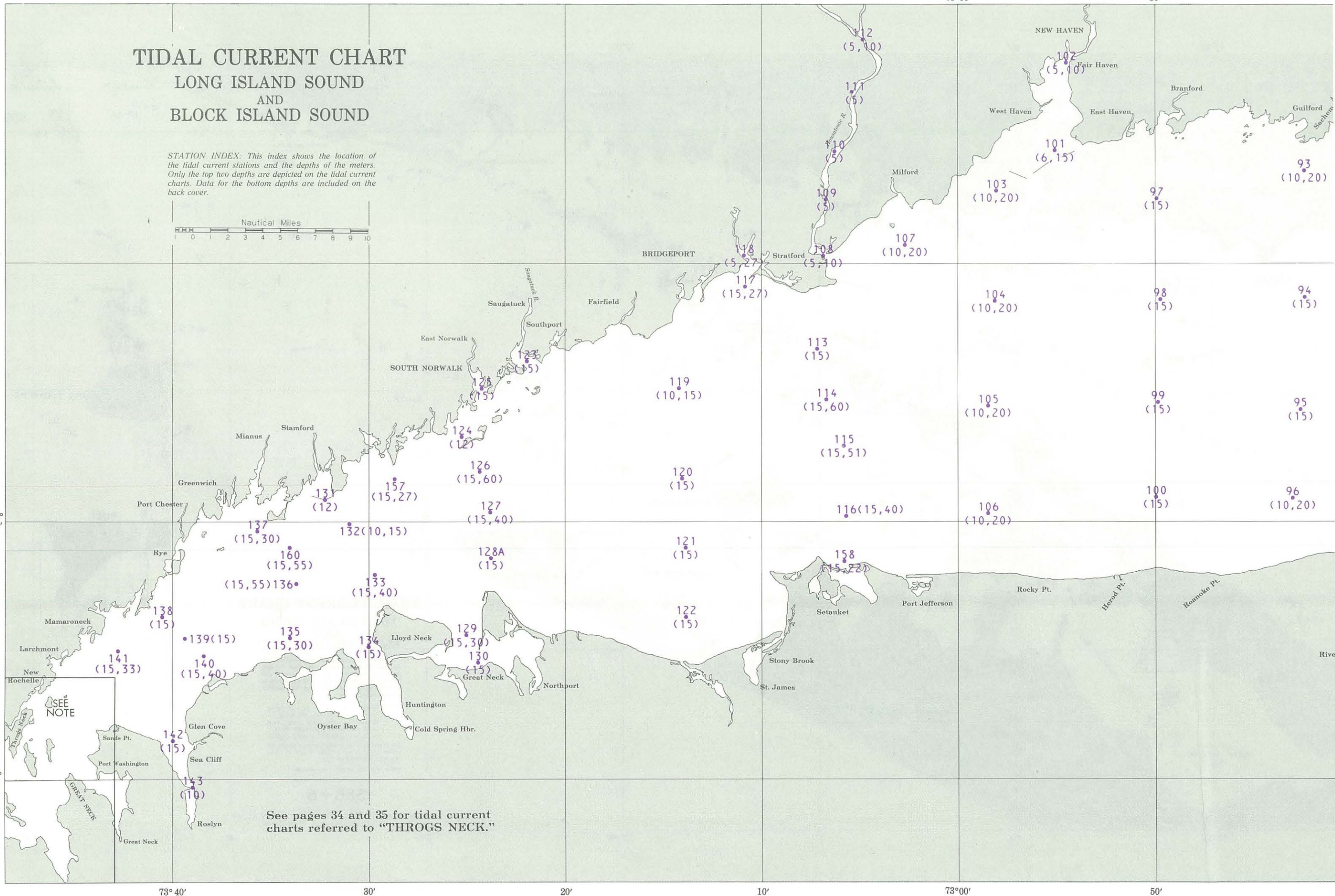




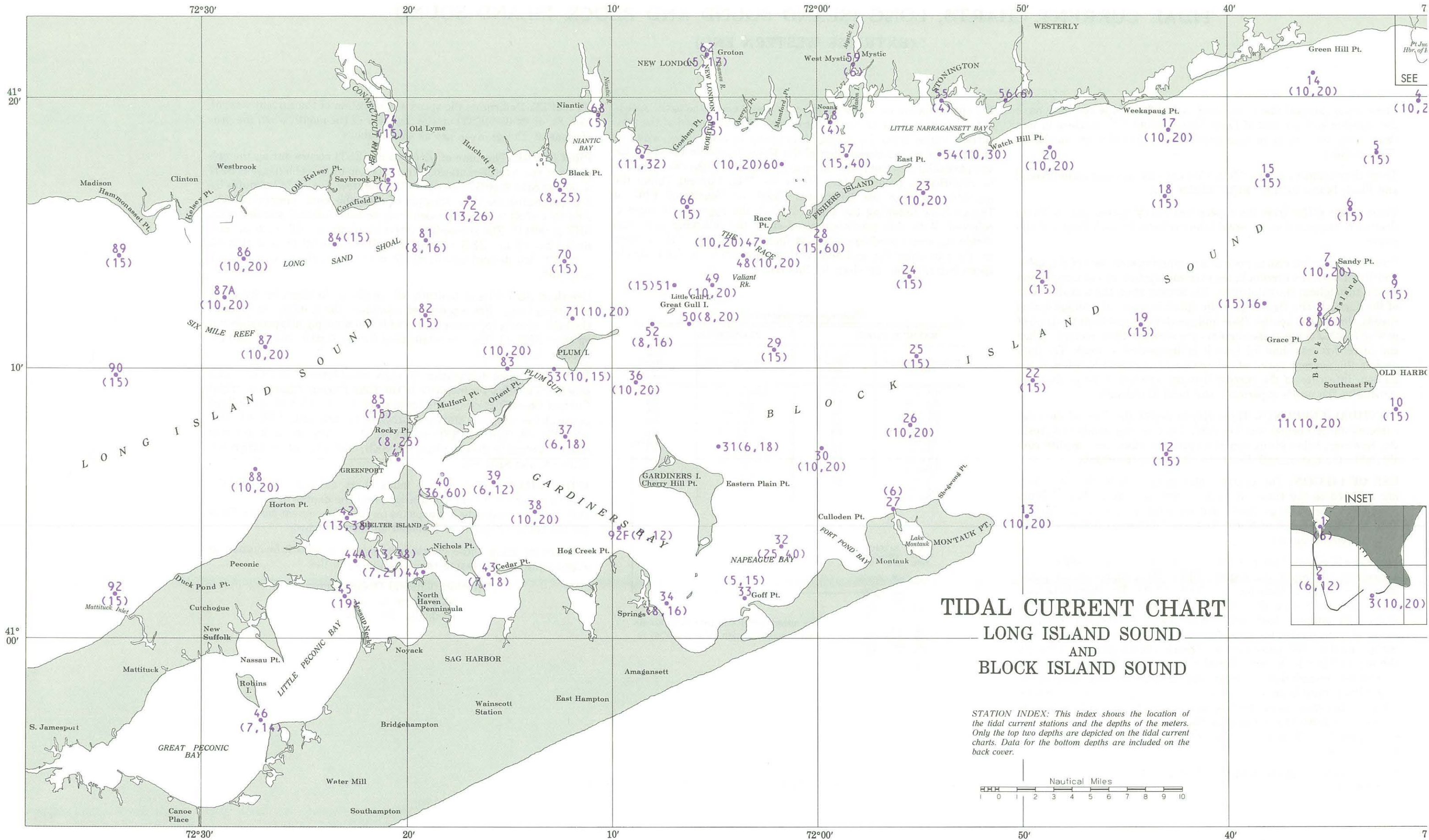
**STATION INDEX:** This index shows the location of the tidal current stations and the depths of the meters. Only the top two depths are depicted on the tidal current charts. Data for the bottom depths are included on the back cover.



See pages 34 and 35 for tidal current charts referred to "THROGS NECK."









TIDAL CURRENT CHARTS, LONG ISLAND SOUND AND BLOCK ISLAND SOUND  
(EXTREME WESTERN END)

These equal interval charts on pages 34 and 35 include the stations in the extreme western end of Long Island Sound. The stations in this chart area have the same characteristics as the reference station at "Throgs Neck."

These charts supersede the "Tidal Current Charts, Long Island Sound and Block Island Sound," Fifth Edition 1973.

These charts differ from the superseded hourly spaced charts. These charts are computed on an equal interval basis for each flood and ebb phase.

These tidal current charts present a comprehensive view of the speed and direction of the current in the extreme western end of Long Island Sound throughout the tidal cycle. The arrows show the true direction of the current. The figures give the speed in knots at average spring speeds, that is, the greater flood and greater ebb speeds at the time of new or full Moon when the currents are stronger than average. When the current is less than 0.1 knot it is designated as weak. The data depicts the average speed and direction at the exact location of the station. Inference of the current between stations must be done according to the user's experience and local knowledge.

**NONTIDAL CURRENTS.** These charts depict the flow of the tidal currents under normal weather conditions. Strong winds and freshets, however, bring about nontidal currents which may modify considerably the speeds and directions shown on the charts.

**USE OF CHARTS.** The charts which may be used for any year, are referred to the times of slack waters at "Throgs Neck." Daily predictions for "Throgs Neck" are included in the "Tidal Current Tables, Atlantic Coast of North America," published annually by the National Ocean Survey.

There are 13 charts: 7 are referred to "Slack: flood begins" (SFB) and 6 are referred to "Slack: ebb begins" (SEB). These charts are computed on an equal interval basis for each flood and ebb. The chart to be used for any desired time is determined in the following manner. For the seven equal interval charts referred to "Slack: flood begins," compute as follows: determine the time duration of flood in minutes by computing the time difference between "Slack: flood begins," and "Slack: ebb begins." Divide the time duration by seven to determine the time in minutes for each flood interval. Add this time interval consecutively to "Slack: flood begins," to determine the times for each successive interval. The chart to be used for any desired time will be closest to the computed chart time. Compute the chart series referred to "Slack: ebb begins," by dividing the ebb duration by six and following the above procedure.

See page 33 for diagram method to determine the chart and the speed factor to use.

The spring speeds shown on the charts must be corrected to the speeds to be expected at the day and hour of their use. The speed of the tidal current varies from day to day principally in accordance with the phase, distance and declination of the Moon. To obtain the speed for any particular day and hour, the speeds indicated on the charts should be modified as follows: obtain from the Tidal Current Tables the predicted speed of the "Maximum Flood" or "Maximum Ebb" at Throgs Neck following the slack to which the appropriate chart is referred. With this predicted speed enter the following table and obtain the corresponding correction factor. The speed of the current for the particular day and hour is then obtained by multiplying the speed indicated on the chart by this factor.

Factors for correcting speeds			
MAXIMUM FLOOD		MAXIMUM EBB	
Predicted speed (knots) at Throgs Neck	Factor to apply to speed on charts	Predicted speed (knots) at Throgs Neck	Factor to apply to speed on charts
0.4-----	0.4	0.3-0.4-----	0.3
0.5-----	0.5	0.5-----	0.4
0.6-----	0.6	0.6-----	0.5
0.7-----	0.7	0.7-----	0.6
0.8-----	0.8	0.8-----	0.7
0.9-----	0.9	0.9-----	0.8
1.0-----	1.0	1.0-----	0.9
1.1-----	1.1	1.1-1.2-----	1.0
1.2-----	1.2	1.3-----	1.1
1.3-----	1.3	1.4-----	1.2
1.4-----	1.4		
1.5-----	1.5		

DAY	SLACK WATER TIME	MAXIMUM CURRENT VFL.	KNOTS
	H.M.	H.M.	
1	0047	0303	0.9E
	0634	0929	0.7F
	1314	1528	0.9E
	1859	2153	0.7F
2	0142	0353	0.8E
	0724	1020	0.7F
	1409	1618	0.8E
	1949	2246	0.6F
3	0236		

The speed factor 0.8 applies to all six charts starting with SEB @ 00<sup>h</sup>47<sup>m</sup>.

**EXAMPLE.** Determine the speed and direction of the current west of Elm Pt. at 02<sup>h</sup>05<sup>m</sup> (EST) on the first day of the month when the predictions at Throgs Neck are as shown above.

**PROCEDURE.** The time of 02<sup>h</sup>05<sup>m</sup> a.m. (EST) occurs during the ebb phase at the reference station. The duration of this ebb phase is SFB @ 06<sup>h</sup>34<sup>m</sup> SEB @ 00<sup>h</sup>47<sup>m</sup>=05<sup>h</sup>47<sup>m</sup> (347 minutes). Divide 347 minutes by 6 to determine the time duration of each ebb equal interval (57.83). Add this 57.83 minutes consecutively to each interval starting with SEB @ 00<sup>h</sup>47<sup>m</sup>. The succeeding intervals occur at SEB +1 @ 01<sup>h</sup>45<sup>m</sup>, SEB +2 @ 02<sup>h</sup>43<sup>m</sup>, SEB +3 @ 03<sup>h</sup>41<sup>m</sup>, SEB +4 @ 04<sup>h</sup>39<sup>m</sup> and SEB +5 @ 05<sup>h</sup>37<sup>m</sup>. The desired time of 02<sup>h</sup>05<sup>m</sup> is nearest to the time of SEB +1 @ 01<sup>h</sup>45<sup>m</sup>.

Use chart SEB +1 and multiply all speeds on the chart by the speed correction factor. For a predicted maximum ebb @ 03<sup>h</sup>03<sup>m</sup> of 0.9 knot the table gives a correction factor of 0.8 to multiply all speeds shown on chart SEB +1. The corrected speed for the station west of Elm Pt. is 0.6 x .8=0.5 knots.

**NOTE:** The name designation for each equal interval chart has been shortened to allow for inclusion in the Tidal Current Charts and Tidal Current Chart Diagrams. The seven equal charts referred to the flood phase at the reference station (Throgs Neck) are: SFB, SFB +1, SFB +2, SFB +3, SFB +4, SFB +5 and SFB +6. The six equal interval charts referred to the ebb phase are: SEB, SEB +1, SEB +2, SEB +3, SEB +4, and SEB +5.

**INDEX CHARTS.** The station index chart on page 35 shows the location of the tidal current stations and the depths of the meters. Only the top two depths are depicted on the tidal current charts. Data for the bottom depths are included on the back cover.

All persons using these charts are invited to send information or suggestions for increasing their usefulness to the:

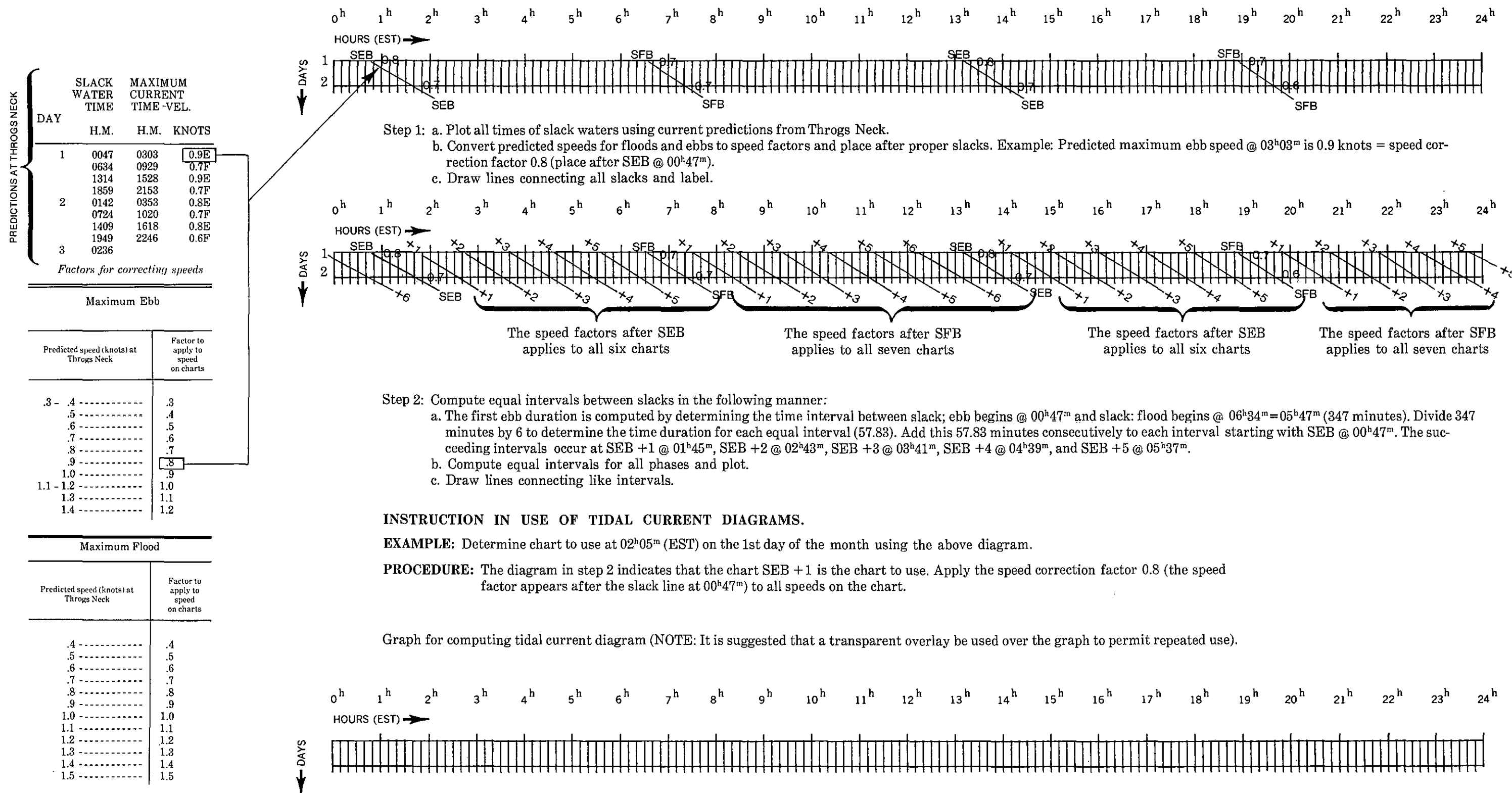
Director, National Ocean Survey  
6001 Executive Blvd.  
Rockville, Md. 20852



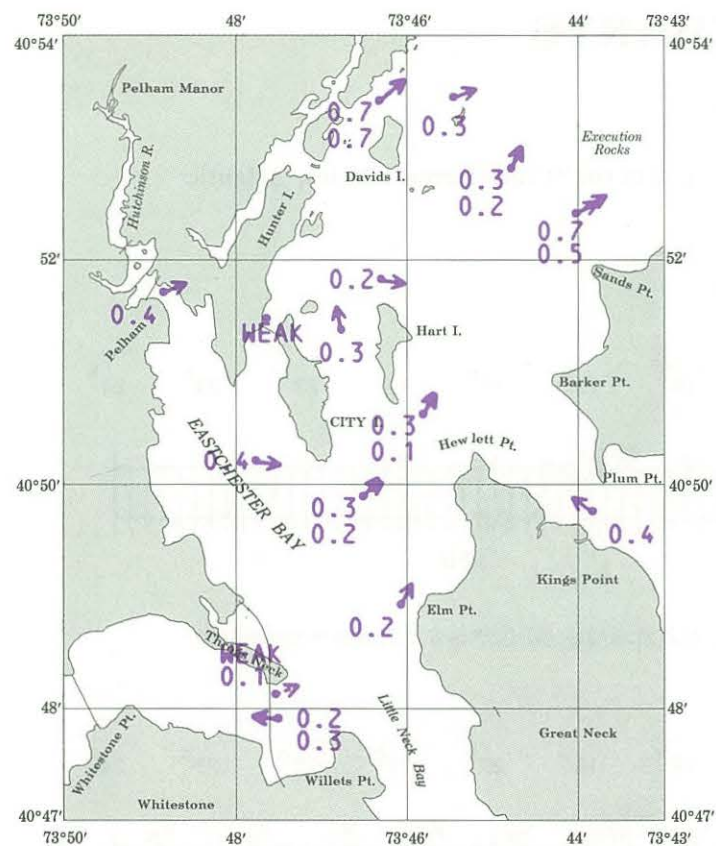
# TIDAL CURRENT DIAGRAM FOR LONG ISLAND SOUND AND BLOCK ISLAND SOUND TIDAL CURRENT CHARTS (Extreme Western End)

The following instructions to compute an equal interval tidal current chart diagram must refer to the times of slack water at "Throgs Neck." Daily predictions for "Throgs Neck" are included in the "Tidal Current Tables, Atlantic Coast of North America," published annually by the National Ocean Survey, NOAA.

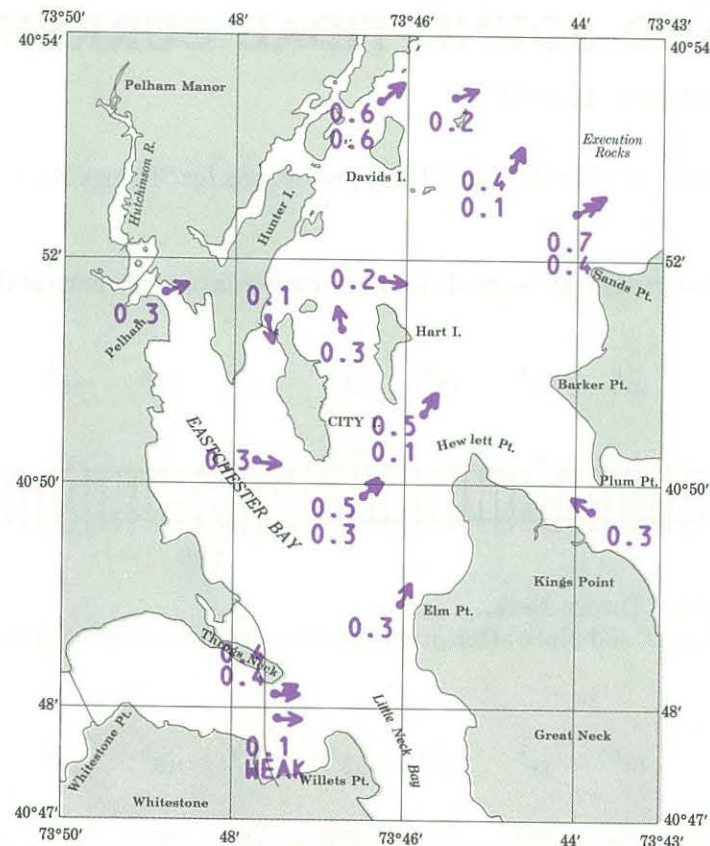
**INSTRUCTIONS TO CONSTRUCT TIDAL CURRENT DIAGRAMS** (computations may be made for consecutive days in advance of their use).



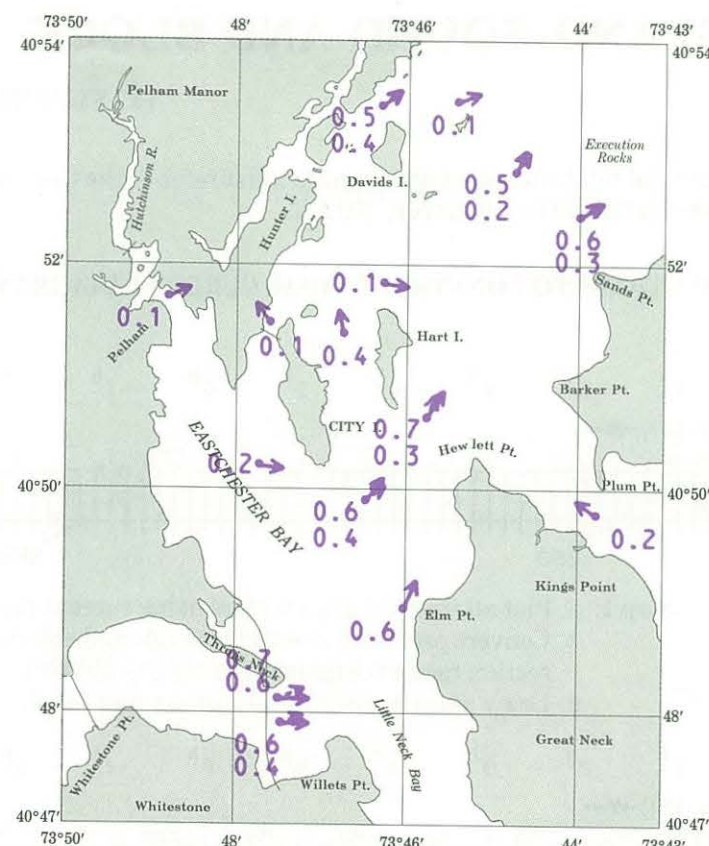




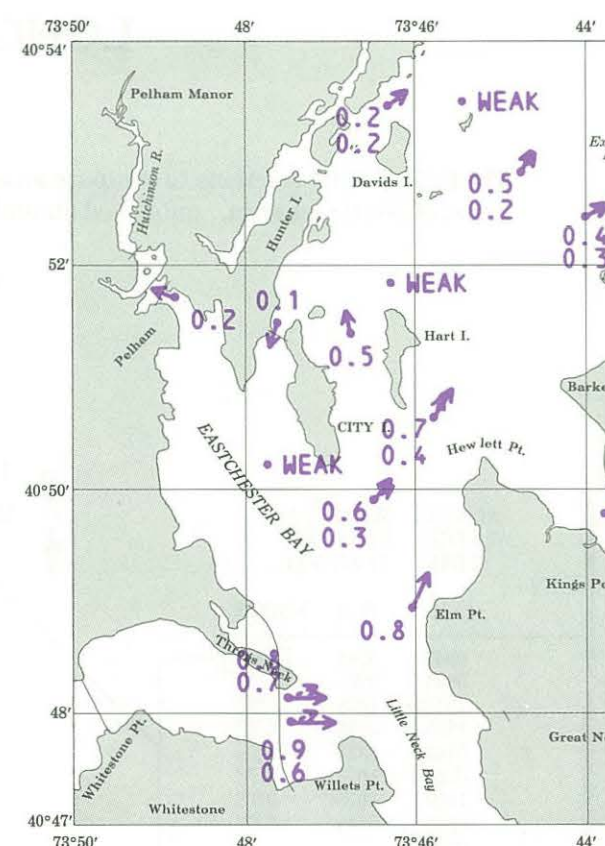
SFB



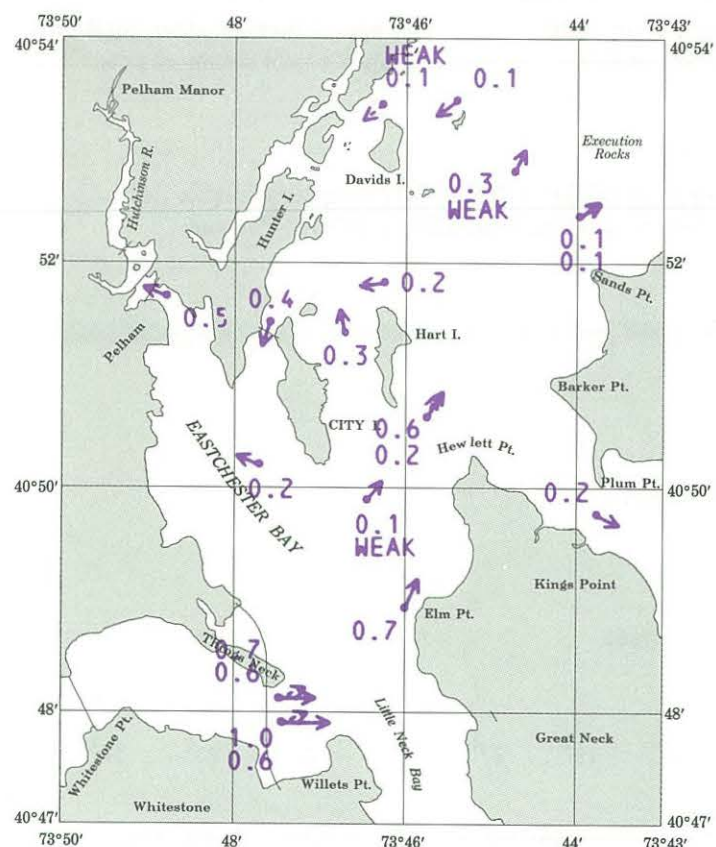
SFB+1



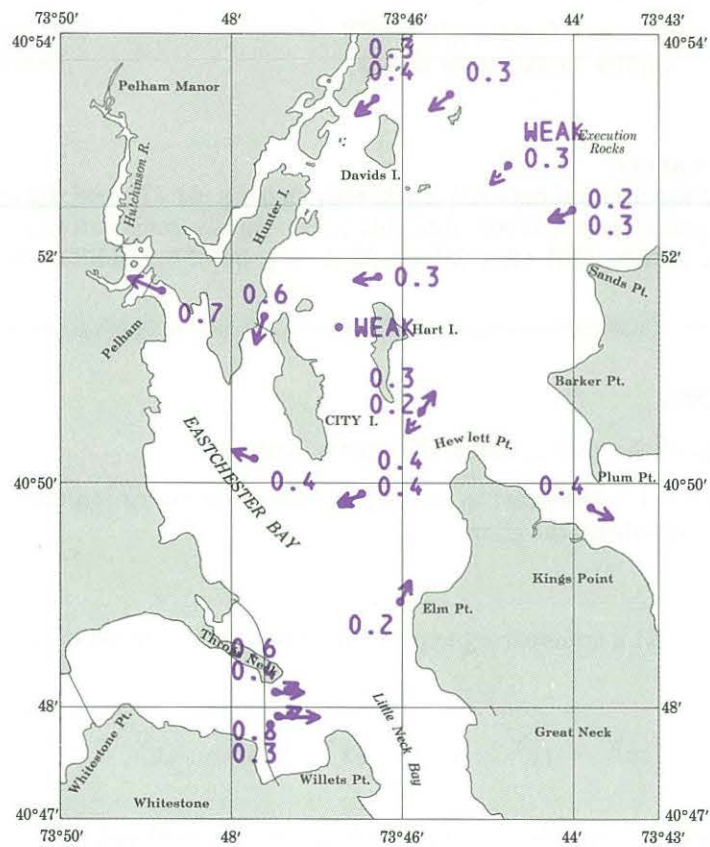
SFB+2



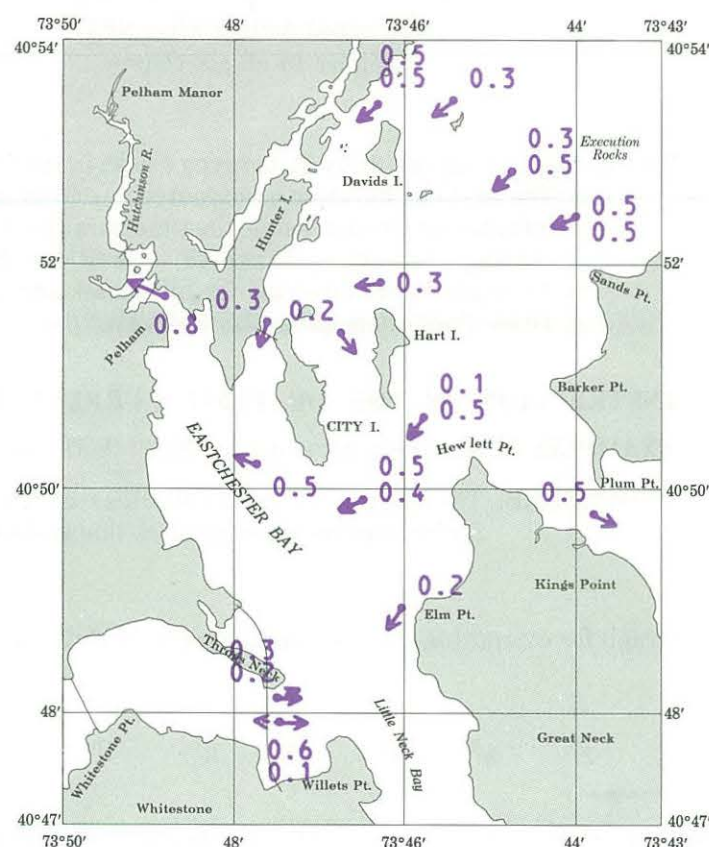
SFB+3



SFB+4



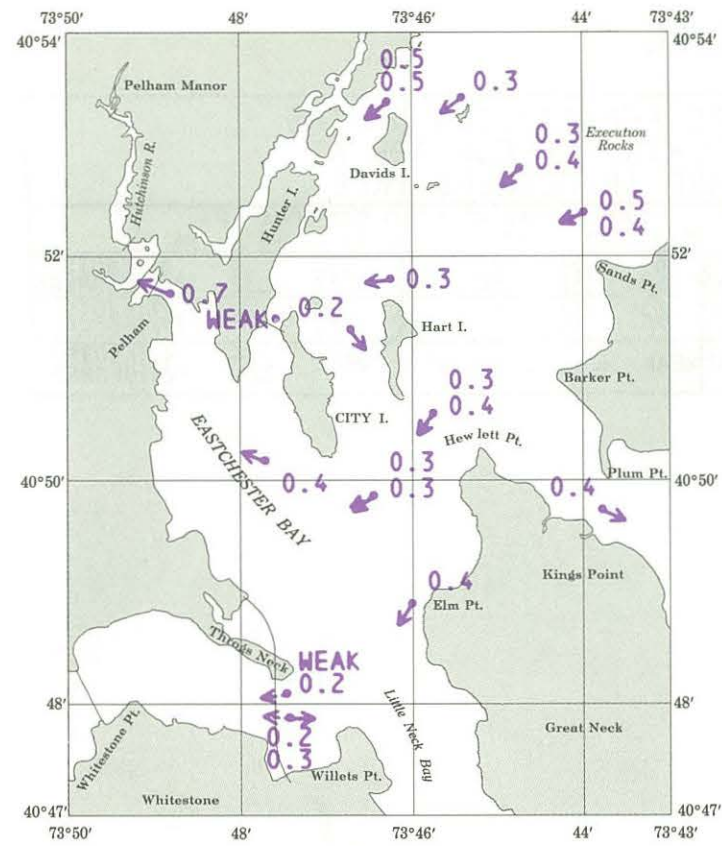
SFB+5



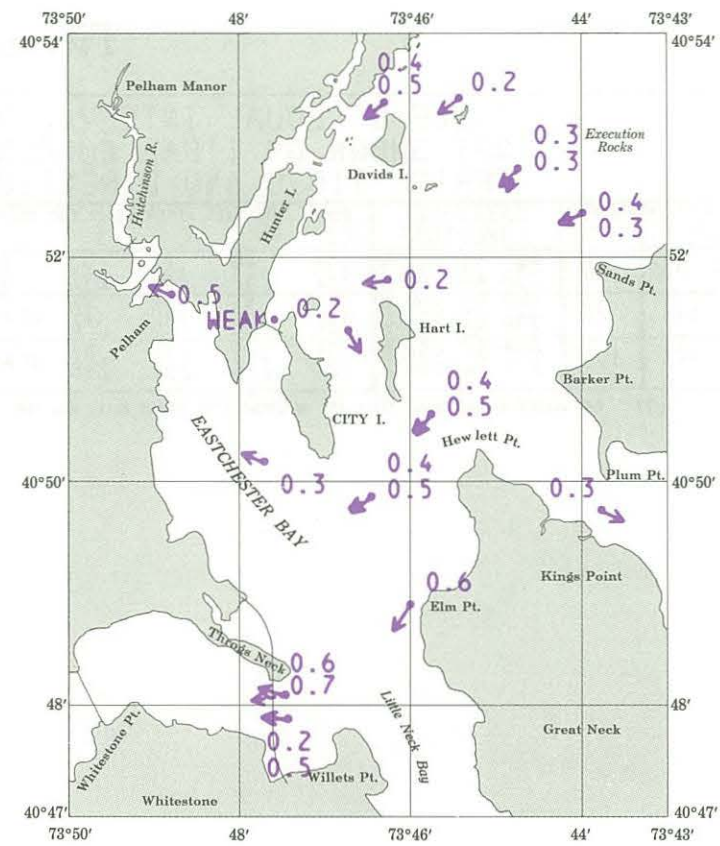
SFB+6

These charts are referred to the reference station at "Throgs Neck."

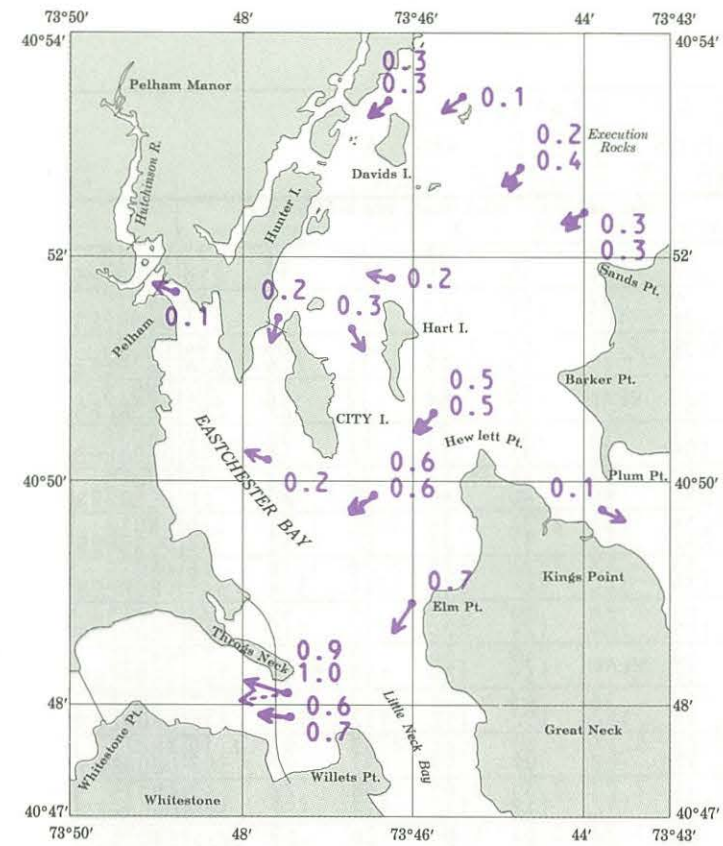




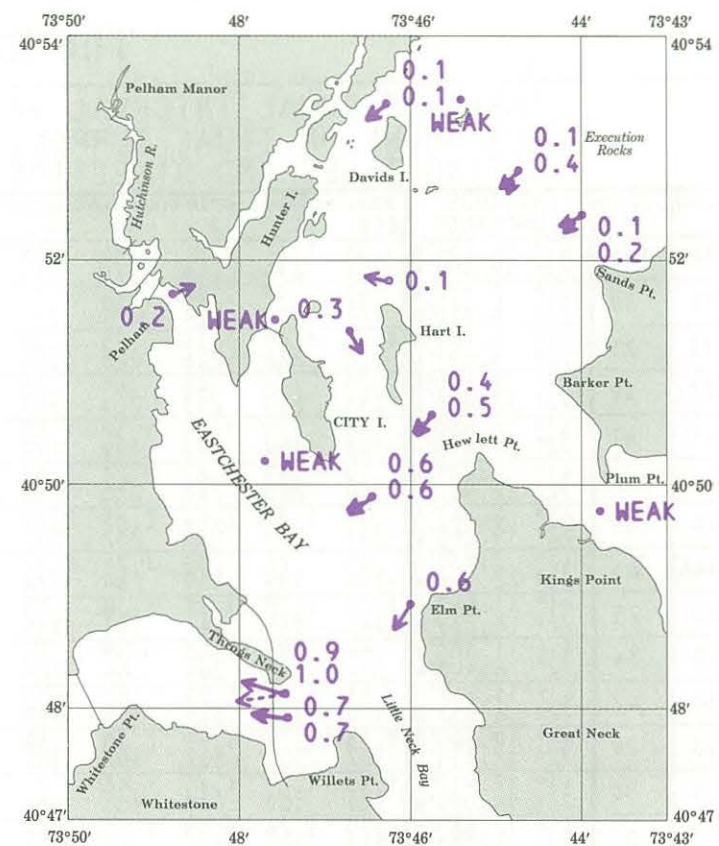
SEB



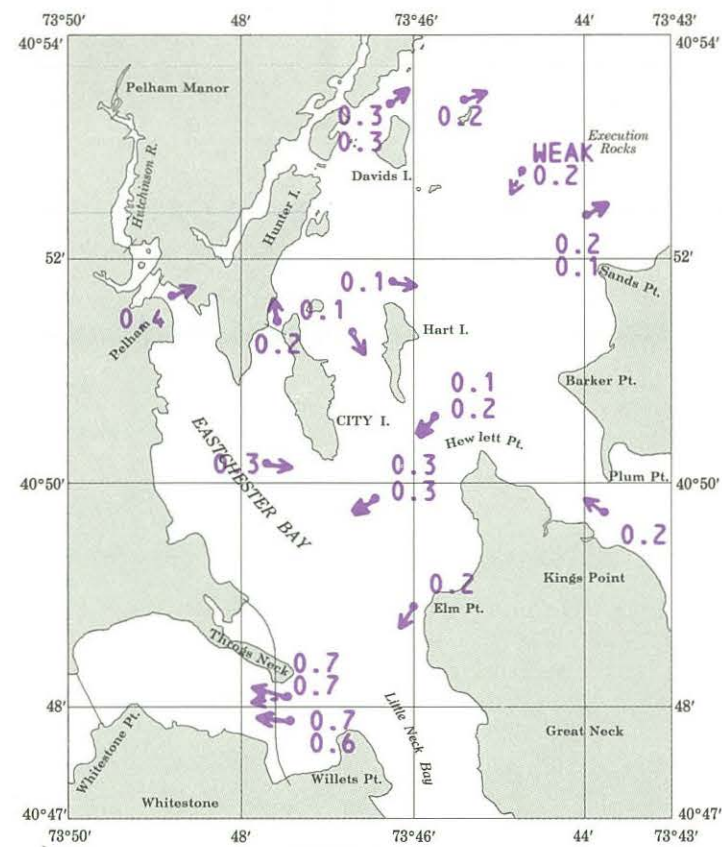
SEB+1



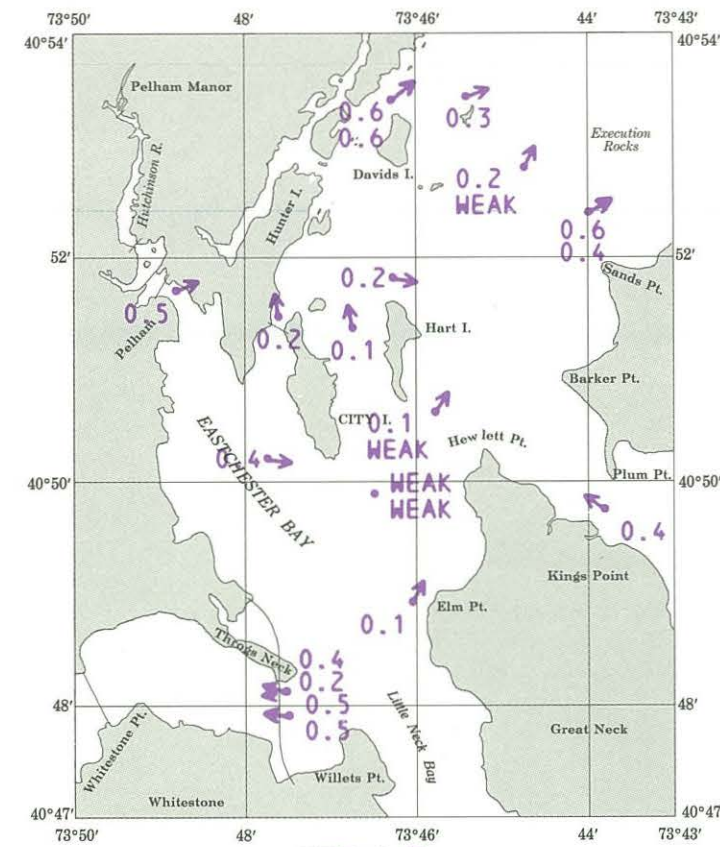
SEB+2



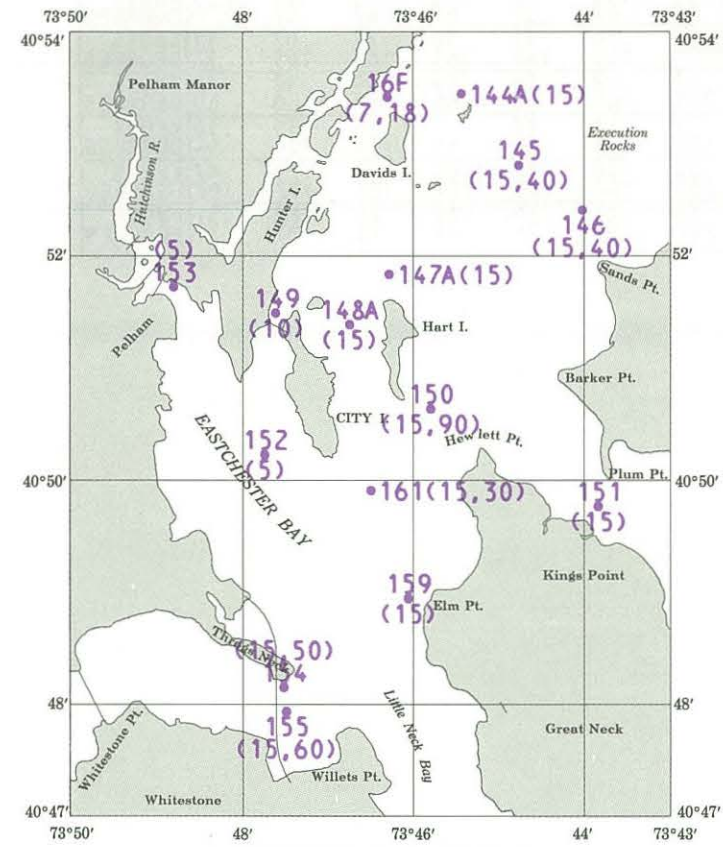
SEB+3



SEB+4



SEB+5



STATION INDEX

These charts are referred to the reference station at "Throgs Neck."



## The Race

TABLE OF EQUAL INTERVAL VALUES FOR STATION DEPTHS NOT SHOWN ON TIDAL CURRENT CHARTS. SPEEDS ARE AT SPRING TIDES AND DIRECTIONS ARE IN DEGREES TRUE.																
STATION NO.	DEPTH (FT)	LATITUDE LONGITUDE	EQUAL INTERVALS AFTER SLACK FLOOD BEGINS (SFB)					EQUAL INTERVALS AFTER SLACK EBB BEGINS (SEB)						KNOTS DEGREES		
			SFB	+1	+2	+3	+4	+5	SEB	+1	+2	+3	+4		+5	+6
(1) 28	100	41° 14.750'N 71° 59.800'W	1.35 214	1.77 214	1.95 214	1.85 214	1.46 214	.83 214	.08 214	1.20 55	1.38 55	1.08 55	.56 55	.08 214	.76 214	KNOTS DEGREES
31	30	41° 7.117'N 72° 4.850'W	.92 271	.97 271	.86 271	.61 271	.25 271	.20 108	.59 108	.57 108	.40 108	.15 108	.17 271	.49 271	.76 271	KNOTS DEGREES
33	25	41° 1.483'N 72° 3.617'W	1.43 226	1.40 226	1.16 226	.75 226	.23 226	.94 15	1.90 15	1.87 15	1.61 15	1.16 15	.60 15	.06 226	.94 226	KNOTS DEGREES
37	30	41° 7.500'N 72° 12.300'W	.25 253	.39 253	.44 253	.41 253	.36 253	.25 253	.14 253	WEAK	.18 27	.20 27	.15 27	.07 253	.07 253	KNOTS DEGREES
41	41	41° 6.650'N 72° 20.433'W	.15 198	.79 199	1.29 199	1.52 199	1.45 199	1.10 199	.54 199	.14 33	.86 33	.71 33	.54 18	.56 18	.30 18	KNOTS DEGREES
42	65	41° 4.483'N 72° 22.950'W	.10 80	.99 280	1.87 280	2.21 280	2.02 280	1.47 280	.67 280	.32 80	1.48 80	1.87 80	1.72 80	1.33 80	.77 80	KNOTS DEGREES
44	35	41° 2.467'N 72° 19.250'W	.15 237	1.72 237	2.64 237	2.68 237	2.27 237	1.52 237	.54 237	.87 32	2.22 32	2.36 32	2.06 32	1.51 32	.76 32	KNOTS DEGREES
44A	65	41° 2.883'N 72° 22.567'W	.21 344	.76 139	1.53 139	1.71 139	1.52 139	1.10 139	.51 139	.23 344	1.23 344	1.75 344	1.70 344	1.38 344	.86 344	KNOTS DEGREES
50	25	41° 11.667'N 72° 6.233'W	1.07 345	1.30 345	1.37 345	1.20 345	.79 345	.22 345	.64 109	.26 174	.55 174	.51 174	.15 174	.30 345	.72 345	KNOTS DEGREES
50	34	41° 11.800'N 72° 6.400'W	.66 264	.91 264	1.03 264	.99 264	.66 264	.11 264	.48 39	WEAK	.49 139	.56 139	.37 139	WEAK	.33 264	KNOTS DEGREES
50	42	41° 11.667'N 72° 6.233'W	.83 315	1.03 315	1.09 315	.92 315	.53 315	WEAK	.47 45	.18 152	.43 152	.41 152	.22 152	.11 315	.51 315	KNOTS DEGREES
53	20	41° 10.000'N 72° 12.833'W	3.13 307	4.17 307	3.99 307	3.10 307	1.68 307	.06 97	4.23 97	5.24 97	4.82 97	3.88 97	2.53 97	.92 97	1.10 307	KNOTS DEGREES
54	50	41° 17.917'N 71° 54.000'W	1.15 300	1.79 300	1.85 300	1.48 300	.79 300	.10 112	1.44 112	2.23 112	2.35 112	2.05 112	1.48 112	.72 112	.17 300	KNOTS DEGREES
57	67	41° 17.883'N 71° 58.533'W	.70 262	1.26 262	1.48 262	1.33 262	.92 262	.31 262	.64 54	1.52 54	1.81 54	1.66 54	1.26 54	.69 54	WEAK	KNOTS DEGREES
67	54	41° 17.867'N 72° 8.467'W	.89 292	1.25 292	1.23 292	1.00 292	.60 292	.11 292	.90 102	1.48 102	1.45 102	1.22 102	.84 102	.37 102	.23 292	KNOTS DEGREES
69	42	41° 16.633'N 72° 12.500'W	1.05 257	1.32 257	1.33 257	1.06 257	.55 257	.14 68	.97 68	1.20 68	1.07 68	.80 68	.43 68	WEAK	.59 257	KNOTS DEGREES
92F	20	41° 4.100'N 72° 9.700'W	.13 281	.24 281	.29 281	.26 281	.17 281	WEAK	.09 67	.16 67	.17 67	.15 67	.11 67	.06 67	WEAK	KNOTS DEGREES
101	24	41° 14.433'N 72° 55.000'W	.26 32	.32 32	.31 32	.26 32	.20 32	.11 32	WEAK	.16 163	.31 163	.30 163	.22 163	.07 163	.11 32	KNOTS DEGREES
119	20	41° 5.217'N 73° 14.167'W	.22 265	.55 265	.77 265	.83 265	.72 265	.49 265	.17 265	.22 60	.55 60	.59 60	.49 60	.32 60	.09 60	KNOTS DEGREES
127	170	41° 3.383'N 73° 23.800'W	.24 188	.55 188	.71 188	.71 188	.63 188	.49 188	.31 188	.11 188	.17 54	.45 54	.53 54	.39 54	.10 54	KNOTS DEGREES
132	20	40° 59.933'N 73° 30.983'W	.16 107	.43 251	1.02 251	1.12 251	.98 251	.70 251	.34 251	.10 107	.83 107	1.00 107	.91 107	.74 107	.47 107	KNOTS DEGREES
132	40	40° 59.933'N 73° 30.983'W	.06 71	.39 247	.72 247	.84 247	.76 247	.55 247	.26 247	.13 71	.70 71	.89 71	.80 71	.62 71	.37 71	KNOTS DEGREES

(1) THE VALUES IN THE ABOVE TABLE ARE REFERENCED TO THE RACE, LONG ISLAND

## Throgs Neck

TABLE OF EQUAL INTERVAL VALUES FOR STATION DEPTHS NOT SHOWN ON TIDAL CURRENT CHARTS. SPEEDS ARE AT SPRING TIDES AND DIRECTIONS ARE IN DEGREES TRUE.															
STATION NO.	DEPTH (FT)	LATITUDE LONGITUDE	EQUAL INTERVALS AFTER SLACK EGG BEGINS (SEB)					EQUAL INTERVALS AFTER SLACK FLOOD BEGINS (SFB)							
			SEB	+1	+2	+3	+4	+5	SFB	+1	+2	+3	+4	+5	+6
(1) 16F	29	40° 53.400'N 73° 46.300'W	.54 232	.46 232	.28 232	.06 232	.30 50	.58 50	.61 50	.54 50	.37 50	.14 50	.12 232	.38 232	.53 232
145	70	40° 52.800'N 73° 44.750'W	.33 226	.31 226	.25 226	.16 226	WEAK 25	.09 25	.23 25	.37 25	.46 25	.48 25	.32 25	WEAK 25	.26 226
146	100	40° 52.400'N 73° 44.000'W	.34 224	.21 224	.17 235	.07 235	WEAK WEAK	WEAK WEAK	WEAK WEAK	WEAK WEAK	WEAK WEAK	WEAK WEAK	WEAK WEAK	.34 224	.42 224

(1) THE VALUES IN THE ABOVE TABLE ARE REFERENCED TO THROGS NECK, NEW YORK