



The Gulf Stream Near the Rhumb Line Newport-Bermuda June 17, 2026
An Analysis of Conditions

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Well we are almost there ! Two days to the start of this year's Newport Bermuda Race so there is still time for the Gulf Stream to change form but hopefully we will have a good idea of the conditions likely to prevail over the next four to 6 days. Since our last Note the situation has remained fairly constant with a well defined meander forming across the rhumb line and slowly migrating to the east-northeast (Figs. 1-3). The evolution of the eastern limb of the meander suggests that it might in time merge with the western arm forming a cold core ring. Such a feature might well affect the optimum route for boats returning from Bermuda to the U.S. At the moment there appears to be multiple patches of warm water shed from the easterly limb that might alternatively form a warm core ring. Detailing over the past week or so has been impeded by intermittent clouds affecting the quality of the IR satellite images. A look this morning in combination with the weather forecast suggests that we might not have another view of the Stream until after the start of Friday. Given the potential for change in Stream form near the rhumb line, continuing monitoring of this area as permitted by cloud cover is warranted both for Bermuda bound and Newport bound boats.

The altimetry based model of currents (Fig. 4) provides an interesting view of the flow field affecting the route to Bermuda. On the continental shelf and offshore to approximately 37° N there is little in the way of significant current. Approaching the trough of the meander there is a suggestion of some slight east to west flow likely associated with the warm water patches mentioned above and waters shed from the north going currents in the easterly limb of the meander.

The altimetry model shows the northern limit of the main body of the Gulf Stream crossing the rhumb line near 37° N at a near right angle resulting in an energetic west to east flow with probable maximum currents approaching 5 knots. To the south of the main body, along the rhumb line, flows are generally weak associated with an area of warm water. The cold core ring that has been present for much of the Spring has shown more westerly transport over the past two weeks and is now located near 35° N 69° W or 120nm to the west of the rhumb line.

Continuing south towards Bermuda there is an area of coherent counter clockwise flow centered near 34° N 67° 30' W producing some weak northwest going flow along a section of the rhumb line. Currents in this feature should be generally less than 1-2 knots.

As always, it's advisable to compare direct satellite imagery of the Gulf Stream to selected model results. The GRTOFS model from NOAA provides reasonably consistent results but appears weak in detail. By way of contrast the Mercator model provides an accurate simulation of the meander crossing the rhumb line but adds an additional component of some concern. In particular, the model run for 18 June suggests that the western edge of the eastern limb of the meander will produce some north going flow intersecting the rhumb line (Fig. 5 see red circle). This result differs substantially from the altimetry model in location and character. The differences are most likely associated with model formulation. With a more accurate determination of cause the navigator can only keep the probability of some adverse flow or set when assessing the risk associated with a selected route to the main body of the Stream. These factors are what make the Race to Bermuda always "interesting".

GOES Sea Surface Temperature: Jun 09 2026 1355 GMT

Courtesy of RUCOOL and U. Delaware ORB Labs, no cloud correction applied

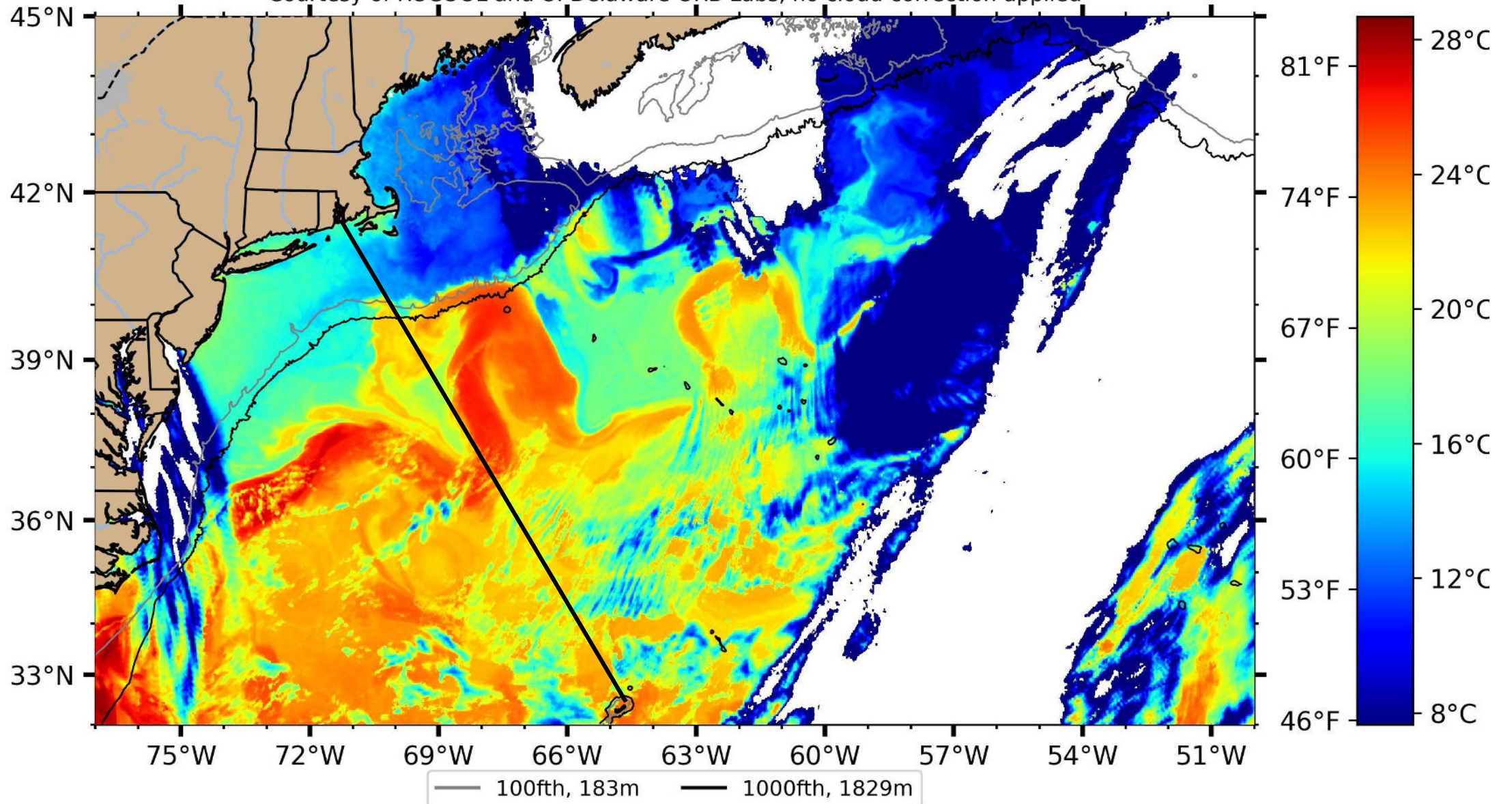


Figure 1 Gulf Stream Sea Surface Temperatures – June 9, 2026
Black Line Represents The Newport to Bermuda Rhumb Line

GOES Sea Surface Temperature: Jun 14 2026 1255 GMT

Courtesy of RUCOOL and U. Delaware ORB Labs, no cloud correction applied

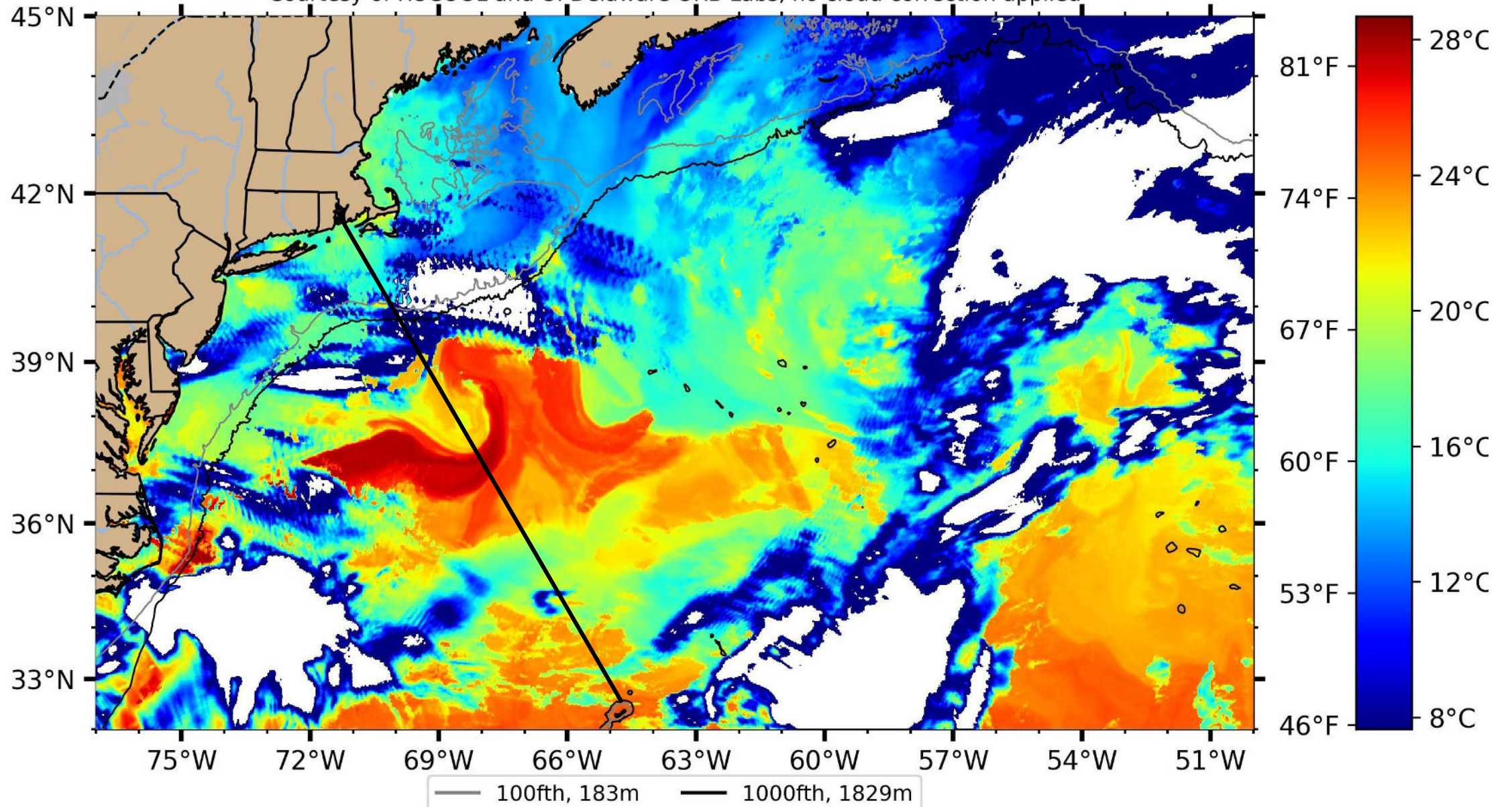


Figure 2 Gulf Stream Sea Surface Temperatures – June 14, 2026
Black Line Represents The Newport to Bermuda Rhumb Line

GOES Sea Surface Temperature: Jun 16 2026 1055 GMT

Courtesy of RUCOOL and U. Delaware ORB Labs, no cloud correction applied

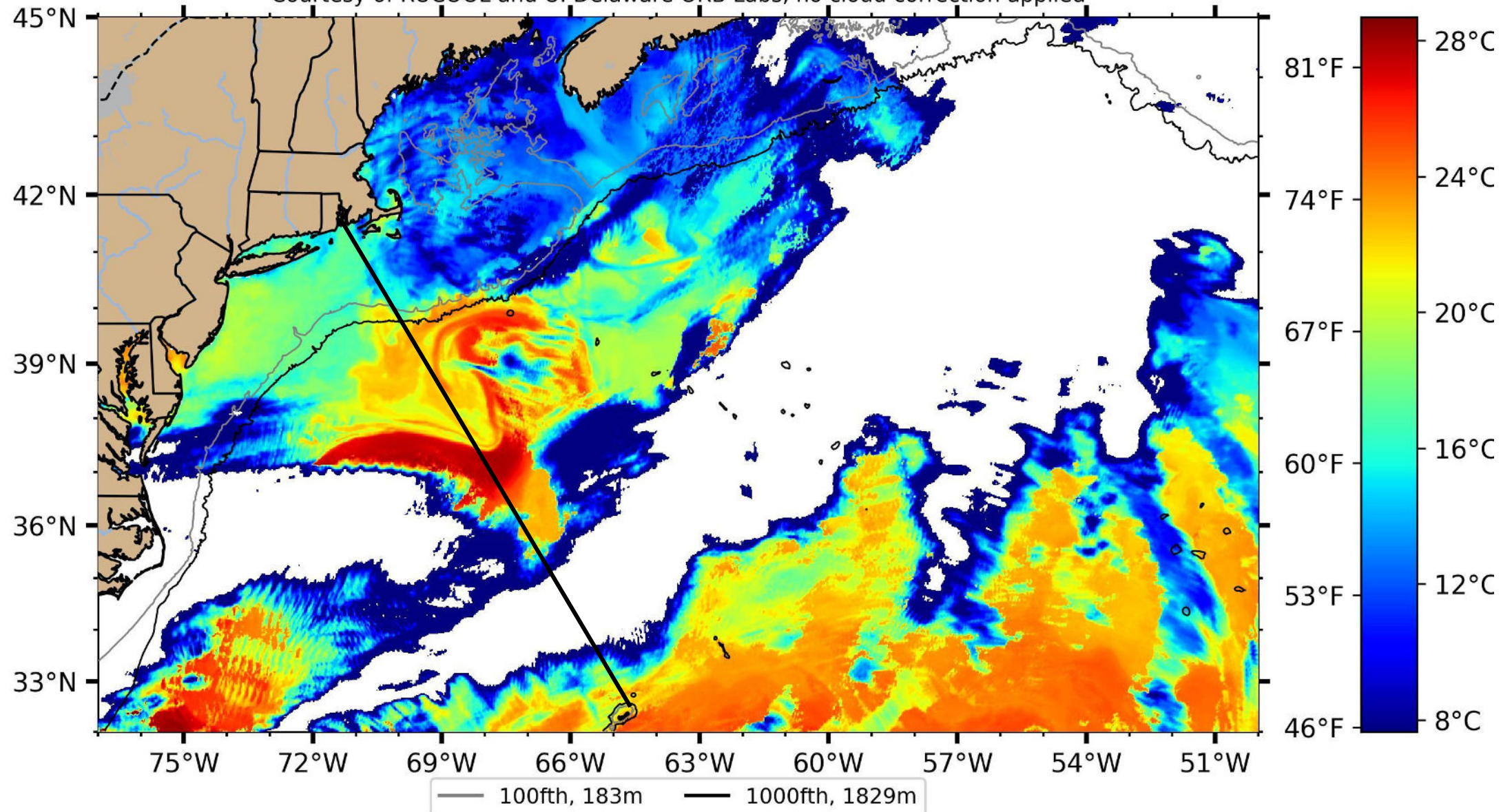


Figure 3 Gulf Stream Sea Surface Temperatures – June 16, 2026
Black Line Represents The Newport to Bermuda Rhumb Lin

JUN-17-2026

CoastWatch NOAA/AOML
Altimeter/GTS Interface

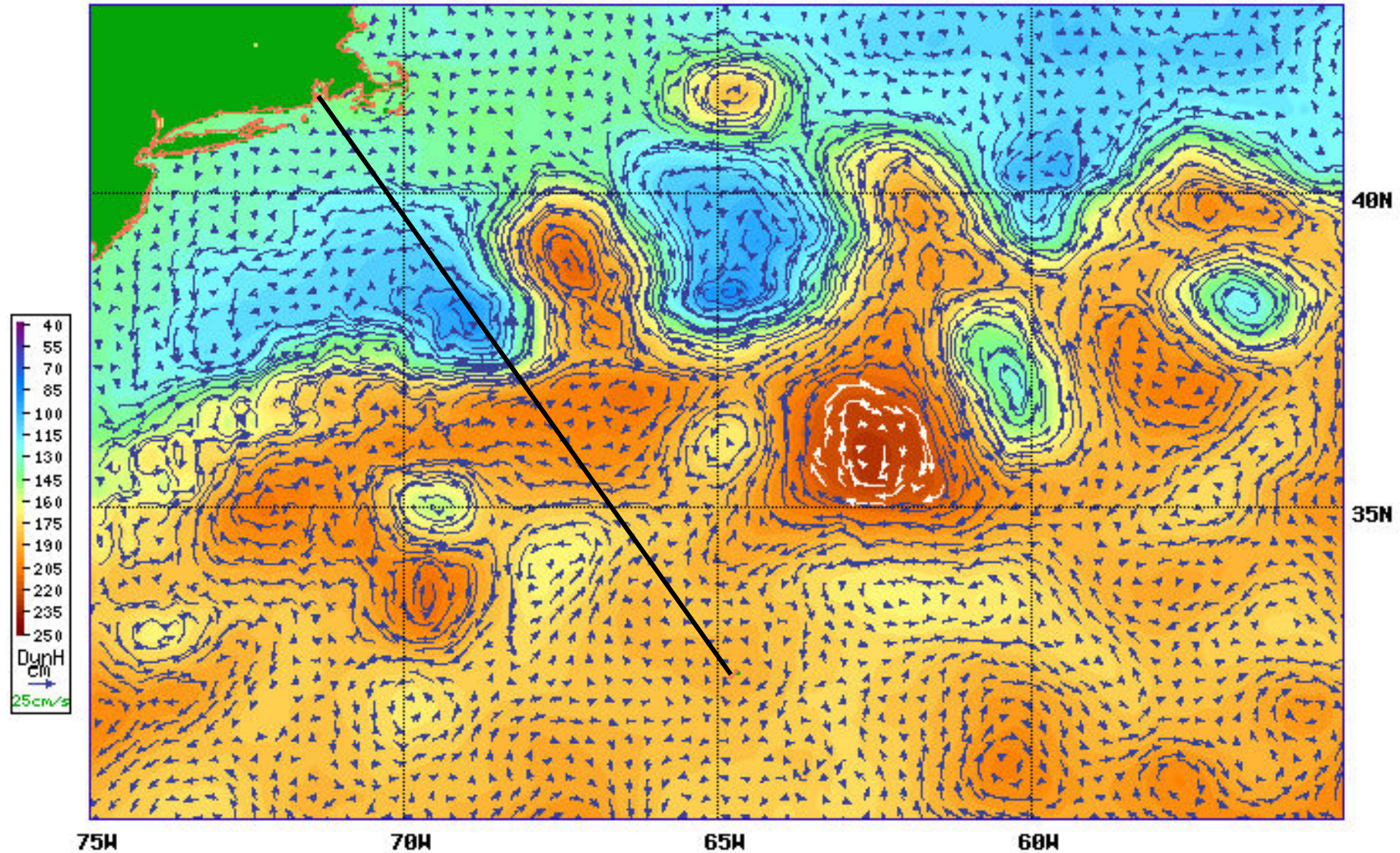
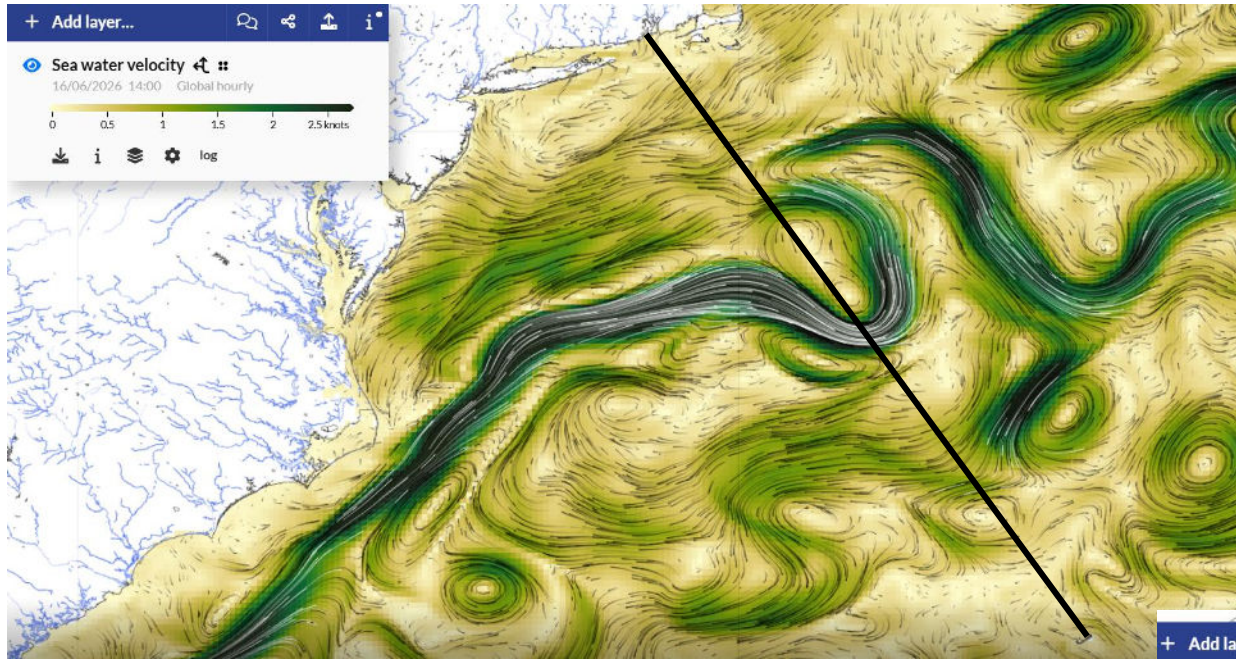
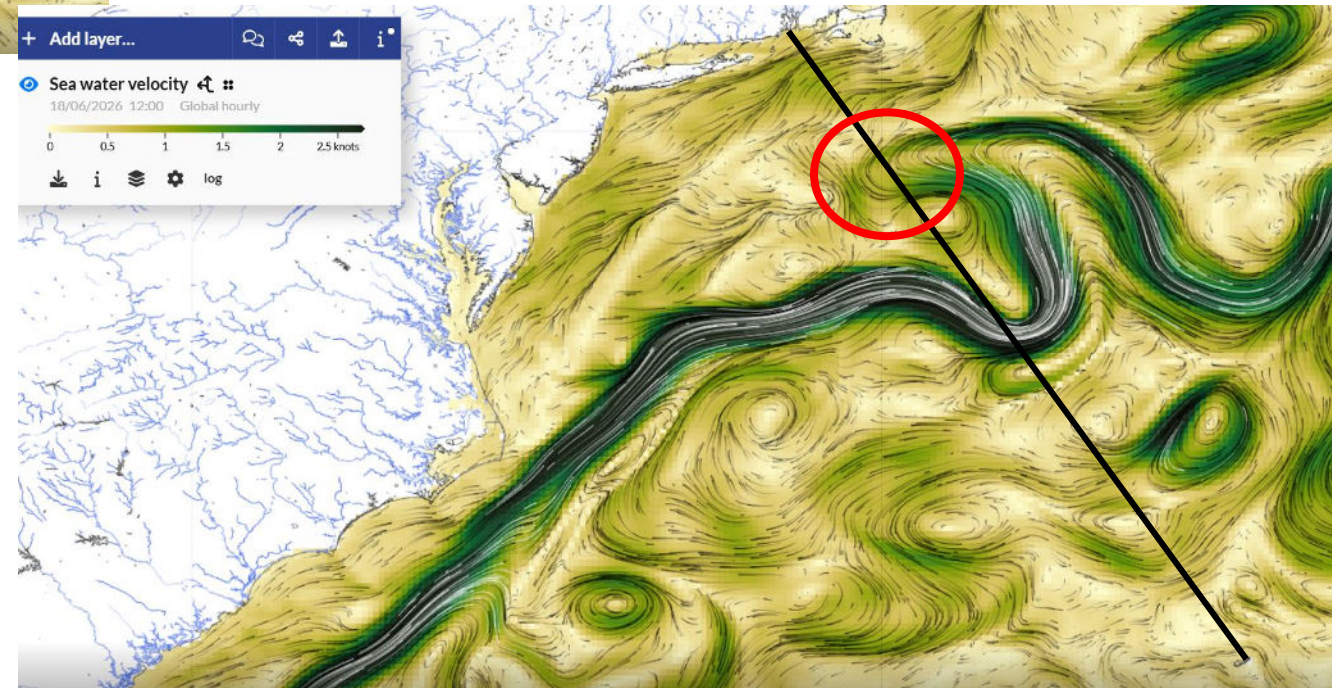


Figure 4 Northwest Atlantic Surface Currents- Altimetry Based Model June 17, 2026
Black Line Represents The Newport to Bermuda Rhumb Line



16 June 2026



18 June 2026

Figure 5 Mercator Model Results
Gulf Stream with Rhumb Line