

DCA23FM036

METEOROLOGY

Specialist's Factual Report - Attachment 4

May 10, 2024

The following NWS graphical marine information was issued by OPC, NHC, and WPC valid from June 16 through the accident time.

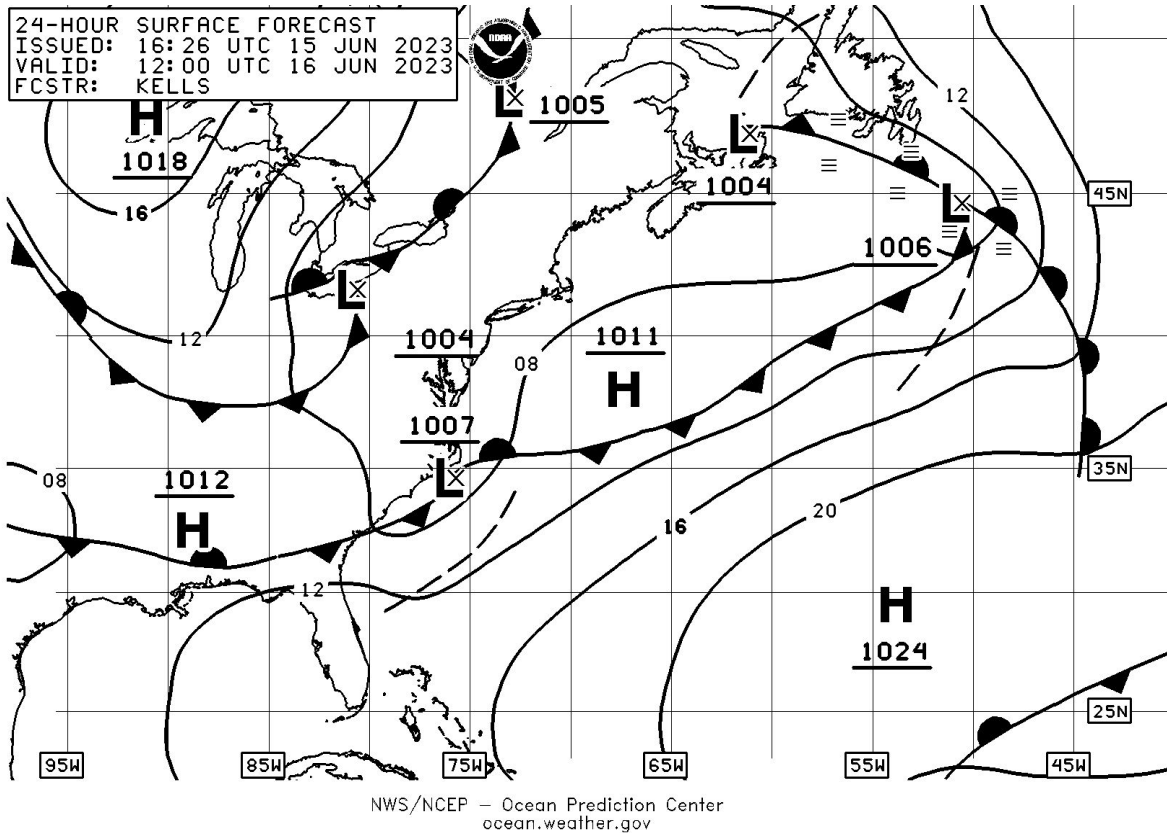


Figure 1. 24-hour OPC marine surface forecast issued at 1356 NDT on June 15 valid for 0930 NDT on June 16.

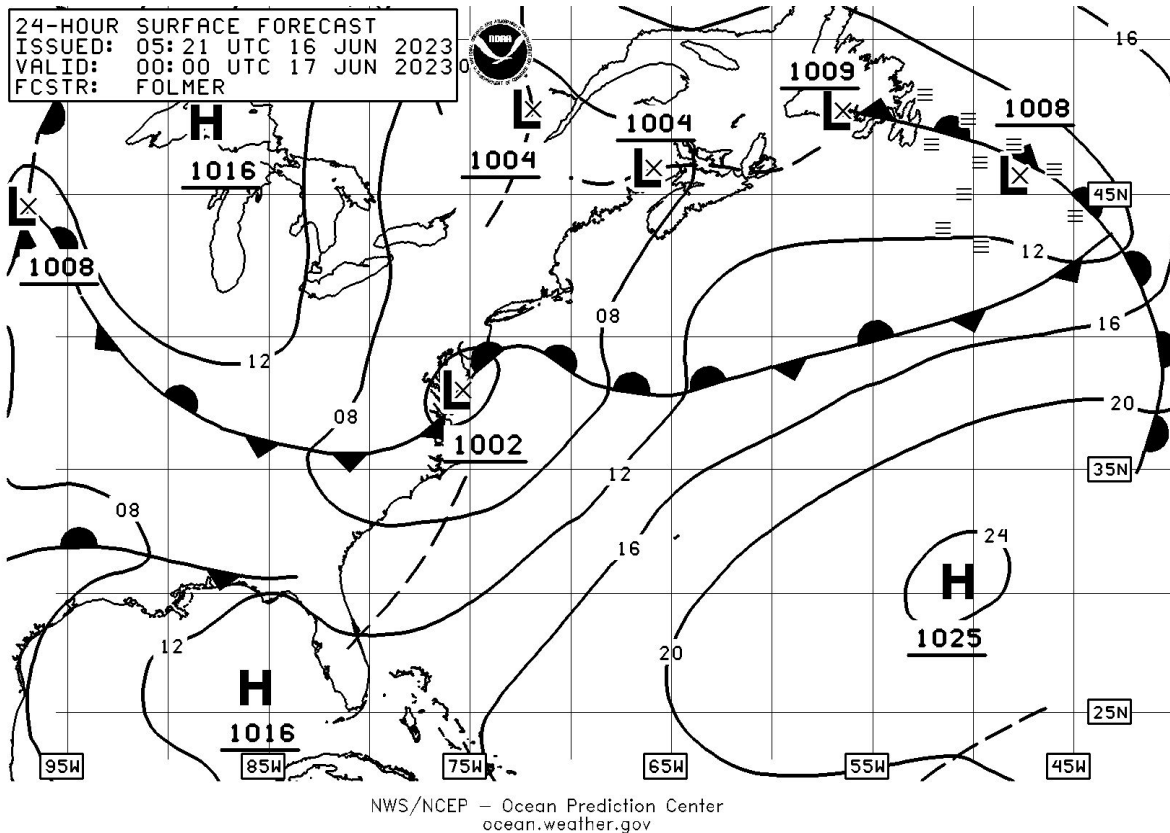


Figure 2. 24-hour OPC marine surface forecast issued at 0251 NDT on June 16 valid for 2130 NDT on June 16.

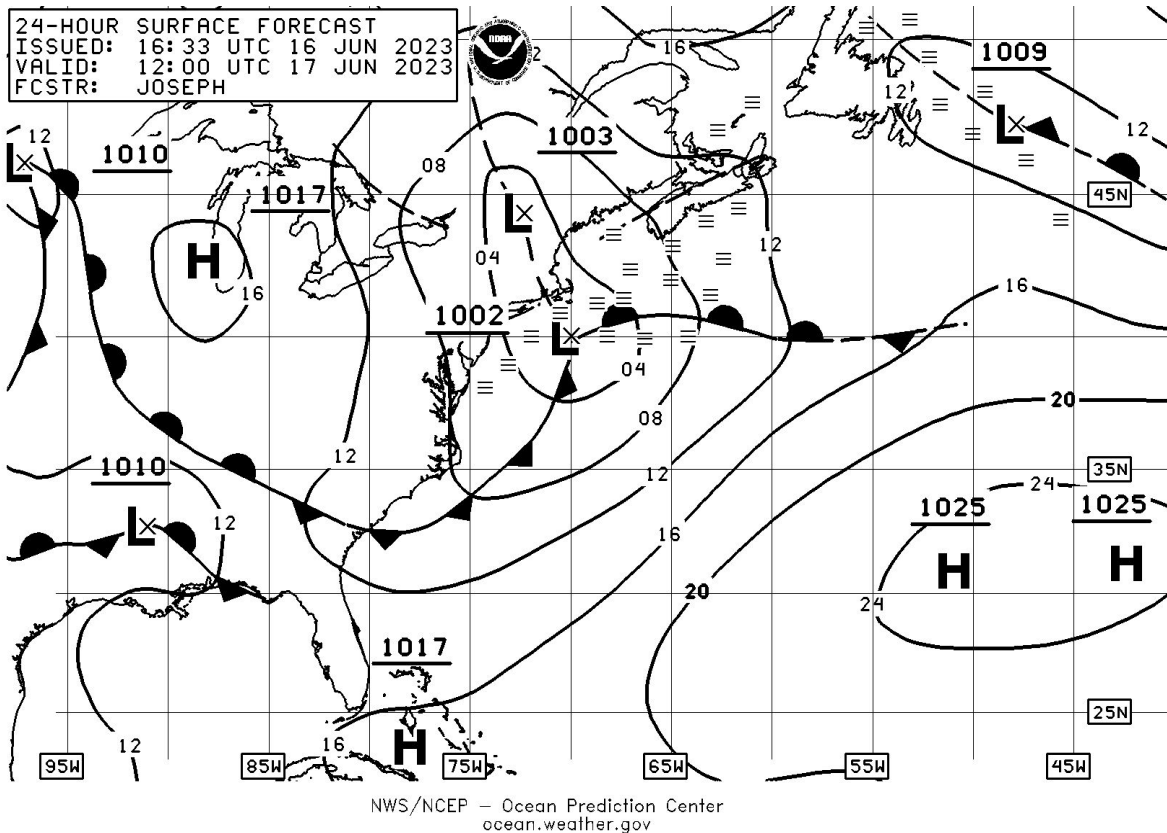


Figure 3. 24-hour OPC marine surface forecast issued at 1403 NDT on June 16 valid for 0930 NDT on June 17.

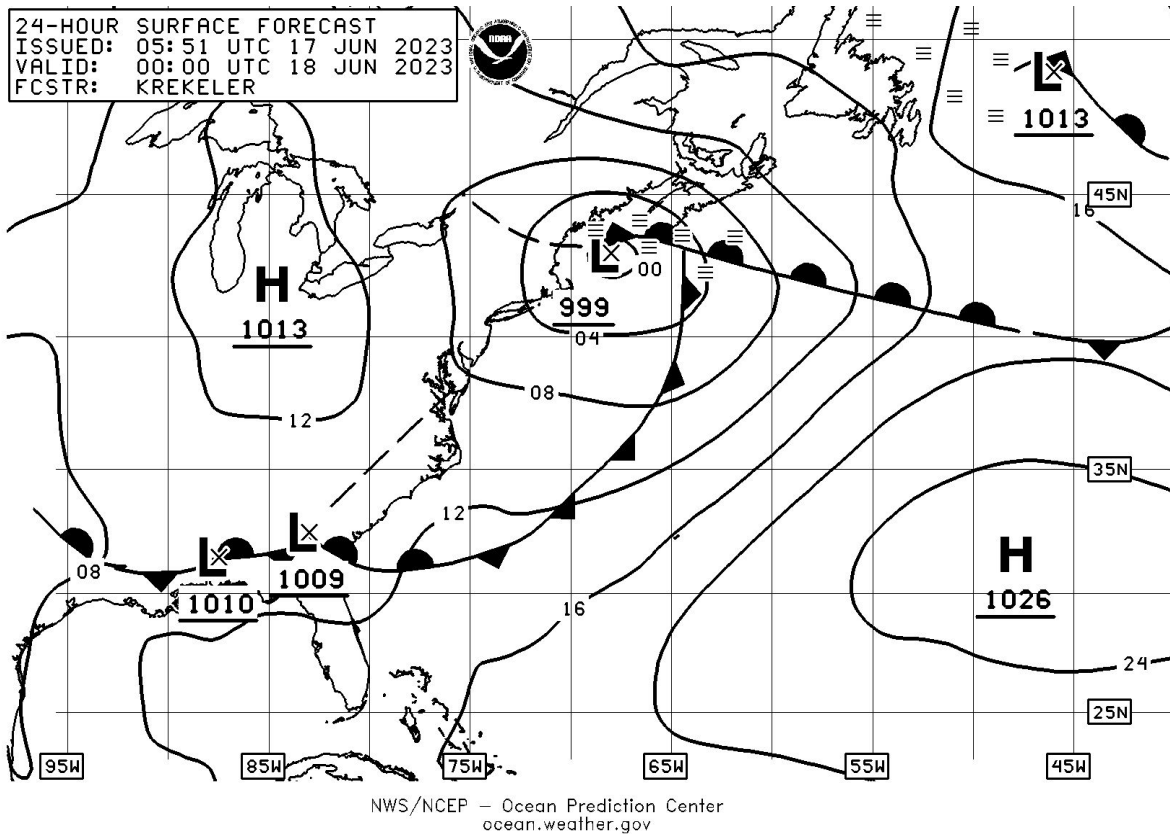


Figure 4. 24-hour OPC marine surface forecast issued at 0321 NDT on June 17 valid for 2130 NDT on June 17.

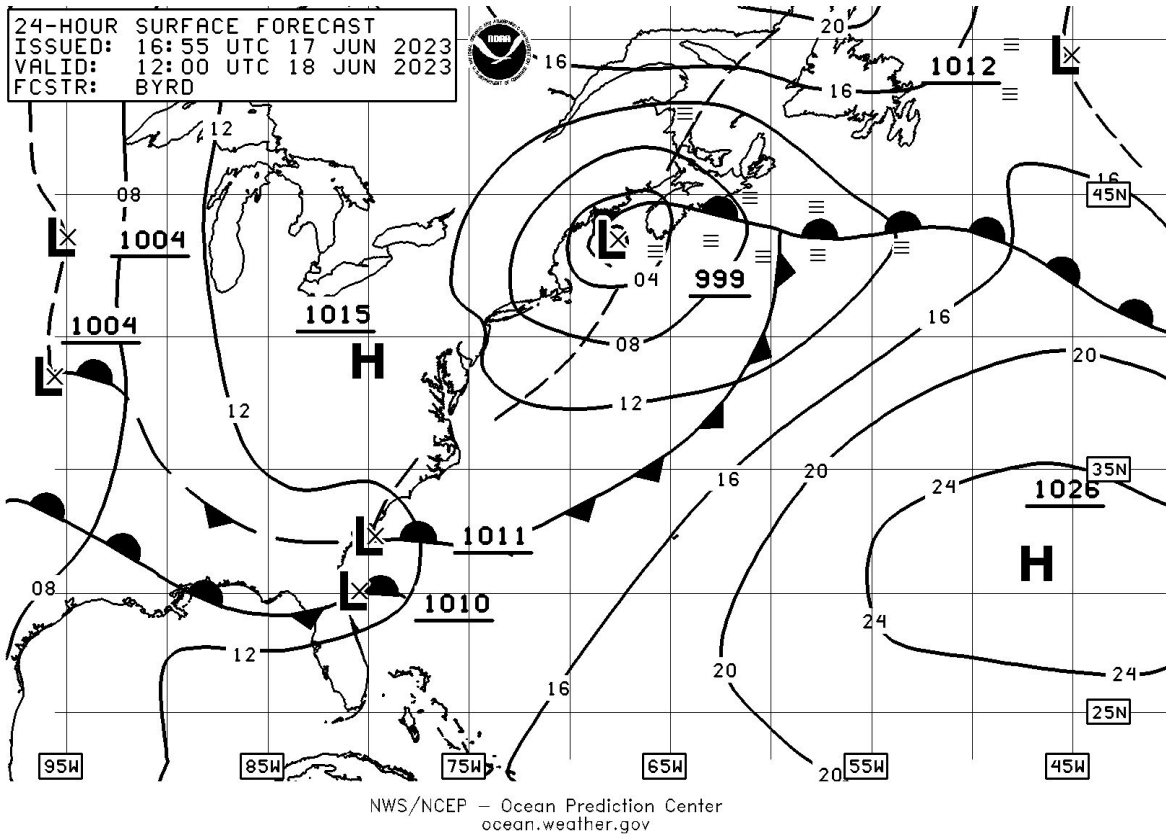


Figure 5. 24-hour OPC marine surface forecast issued at 1425 NDT on June 17 valid for 0930 NDT on June 18.

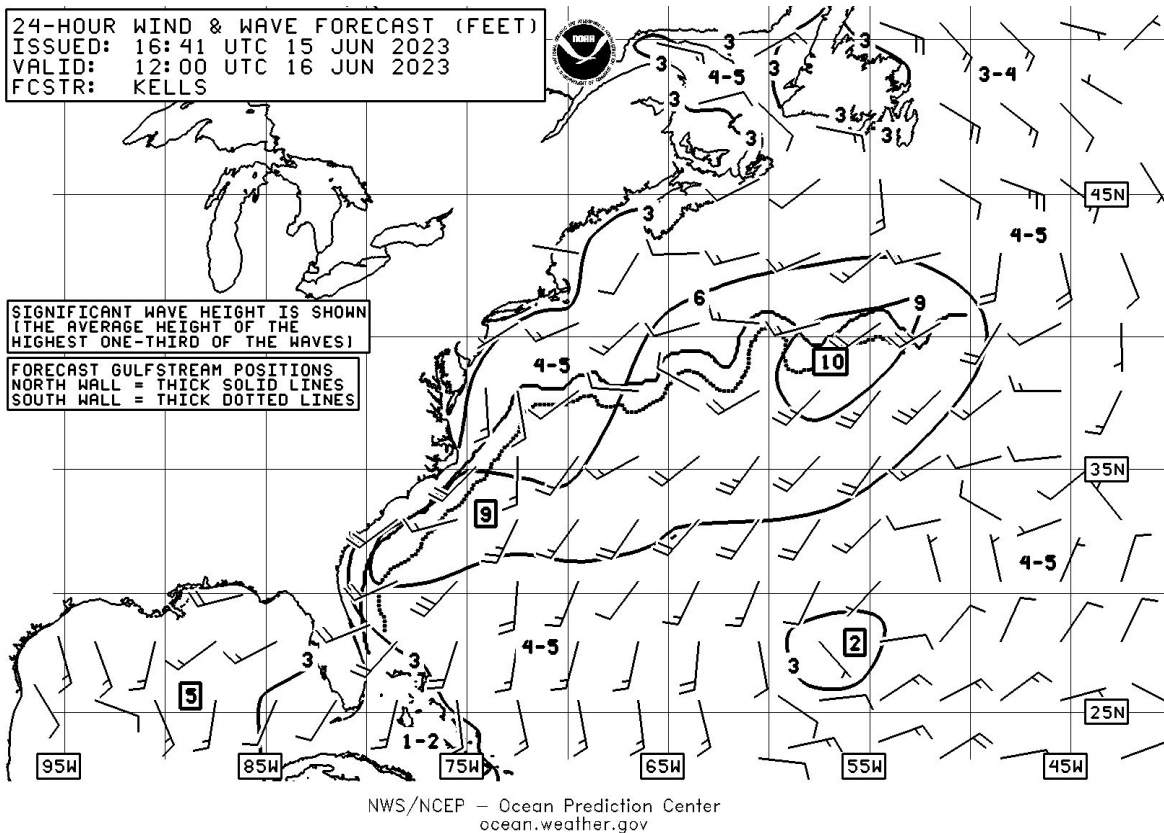


Figure 6. 24-hour OPC marine wind and wave forecast issued at 1411 NDT on June 15 valid for 0930 NDT on June 16.

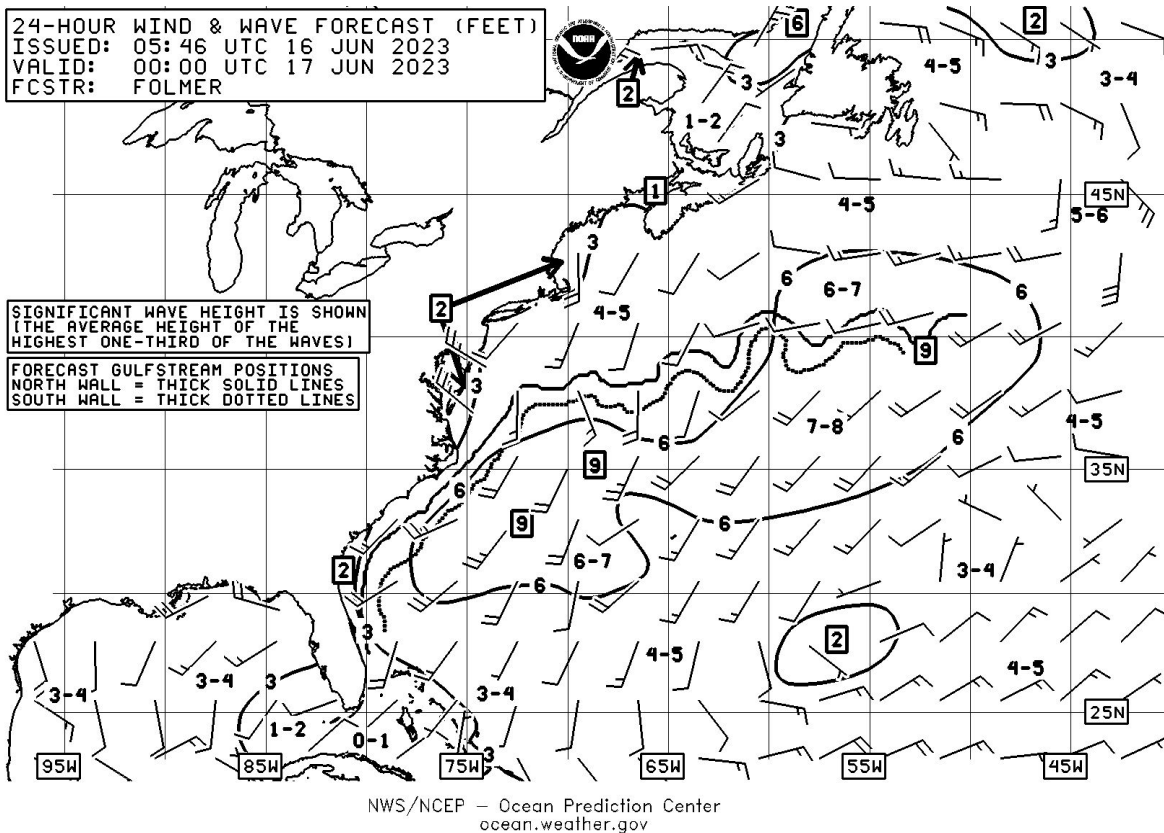


Figure 7. 24-hour OPC marine wind and wave forecast issued at 0316 NDT on June 16 valid for 2130 NDT on June 16.

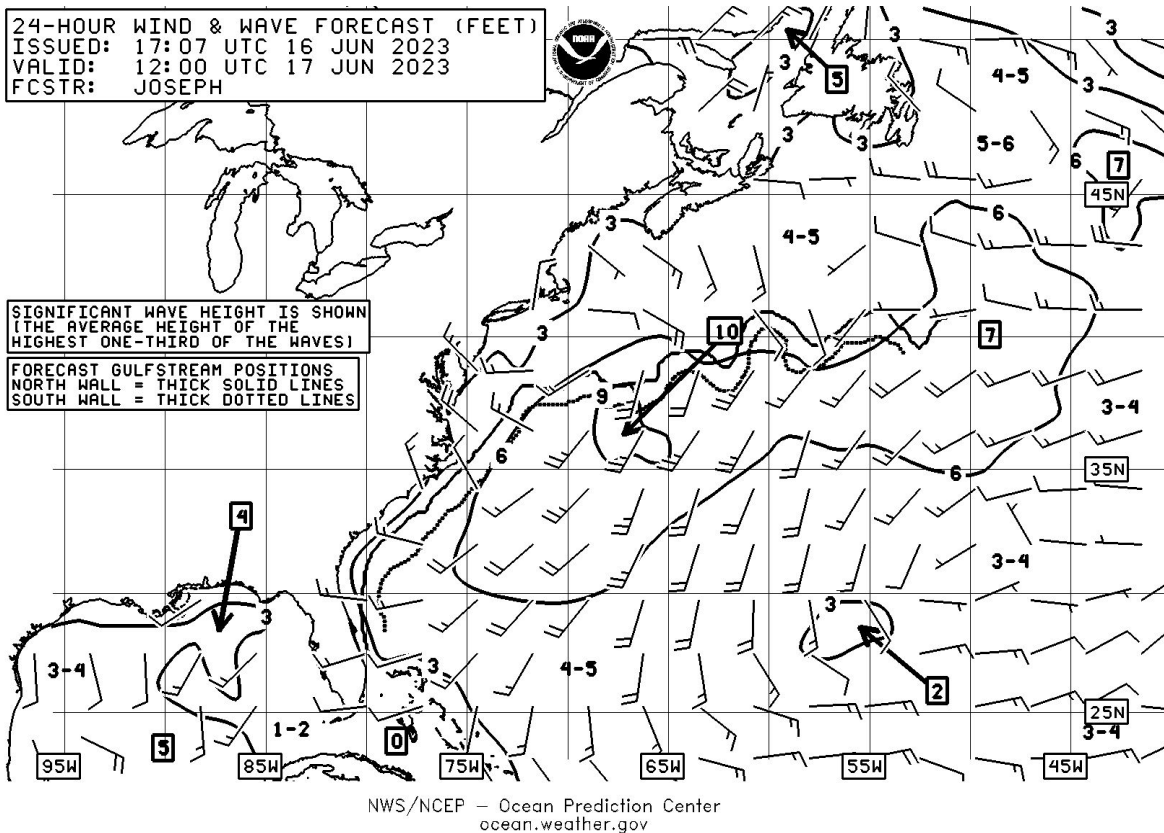


Figure 8. 24-hour OPC marine wind and wave forecast issued at 1437 NDT on June 16 valid for 0930 NDT on June 17.

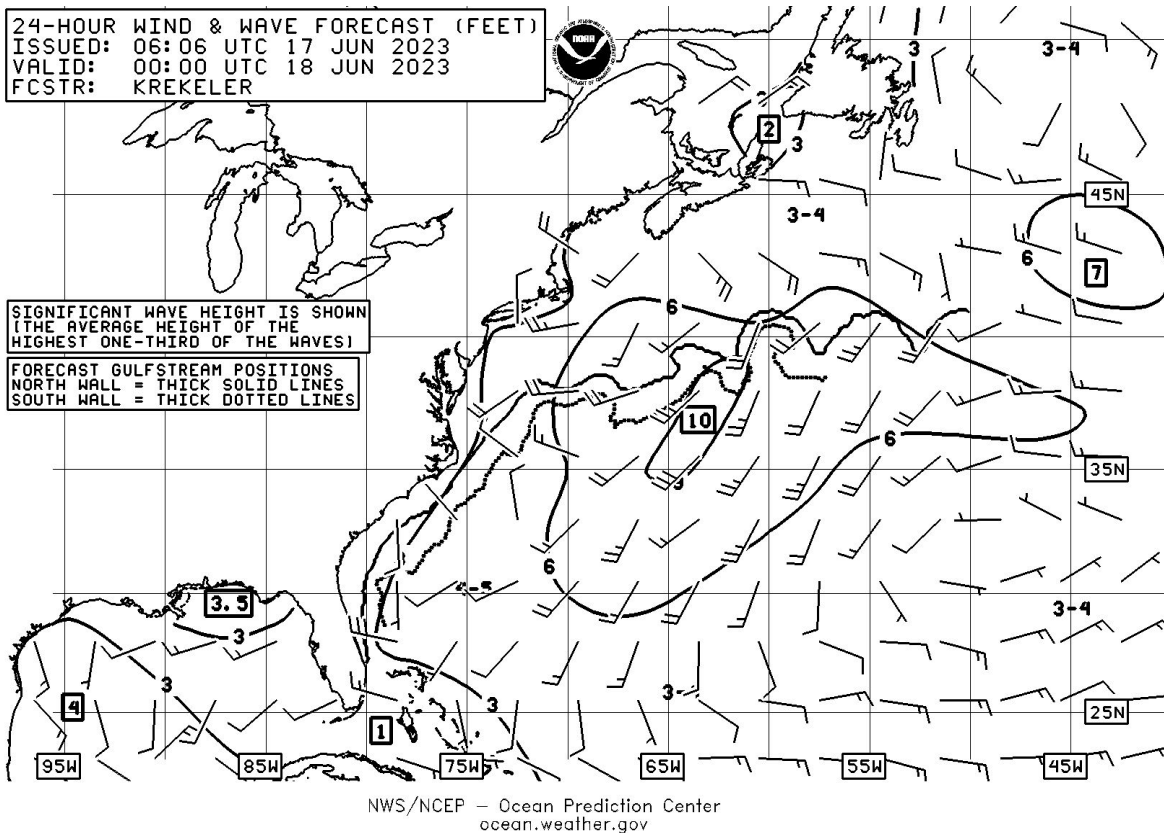


Figure 9. 24-hour OPC marine wind and wave forecast issued at 0336 NDT on June 17 valid for 2130 NDT on June 17.

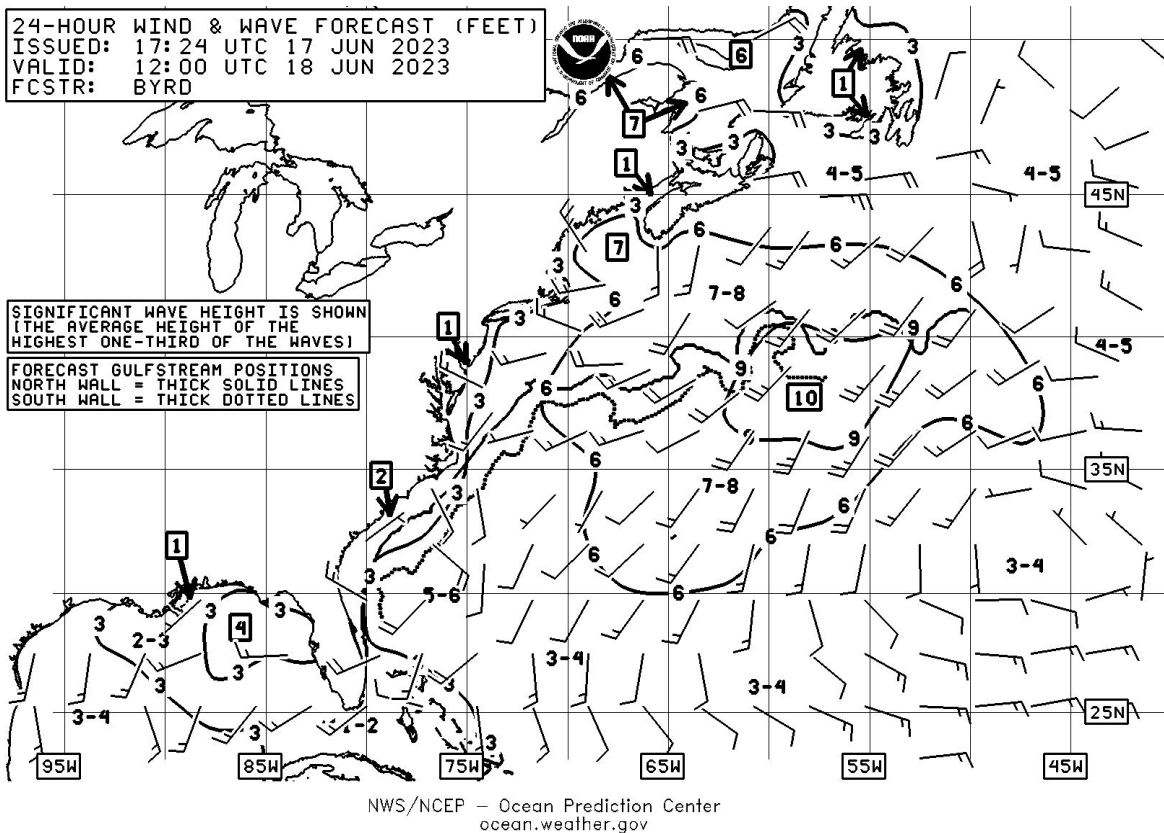


Figure 10. 24-hour OPC marine wind and wave forecast issued at 1454 NDT on June 17 valid for 0930 NDT on June 18.

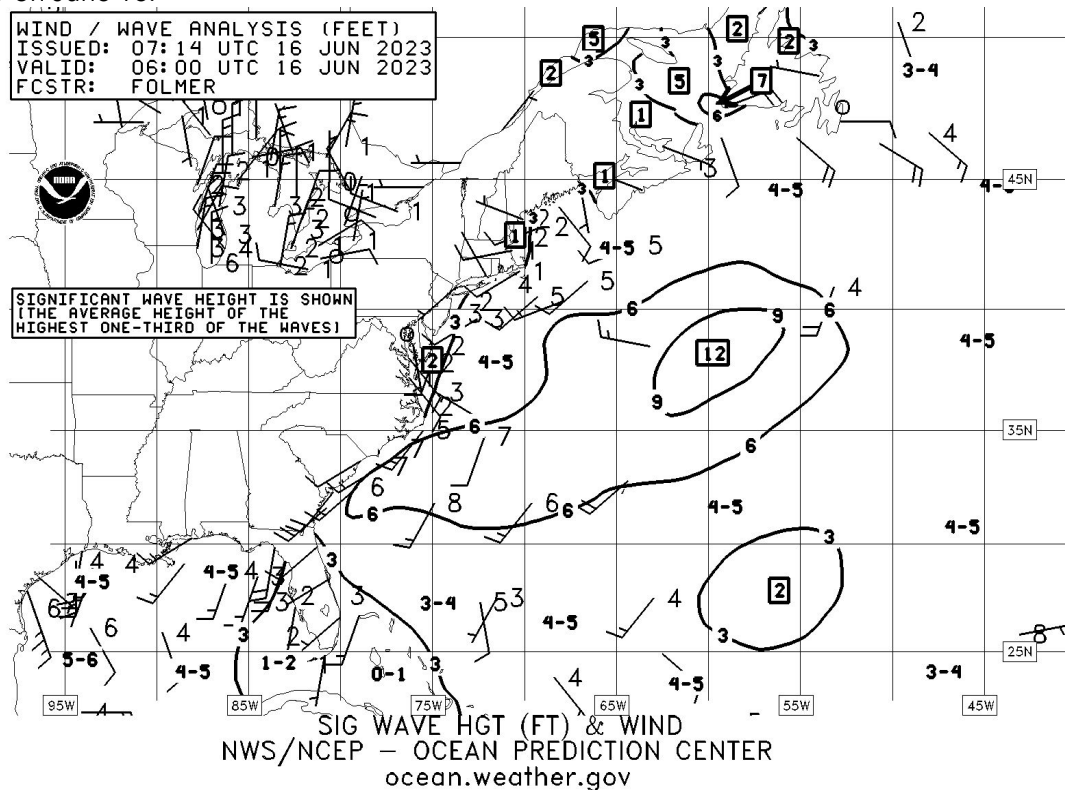


Figure 11. OPC marine wind and wave analysis valid at 0330 NDT on June 16.

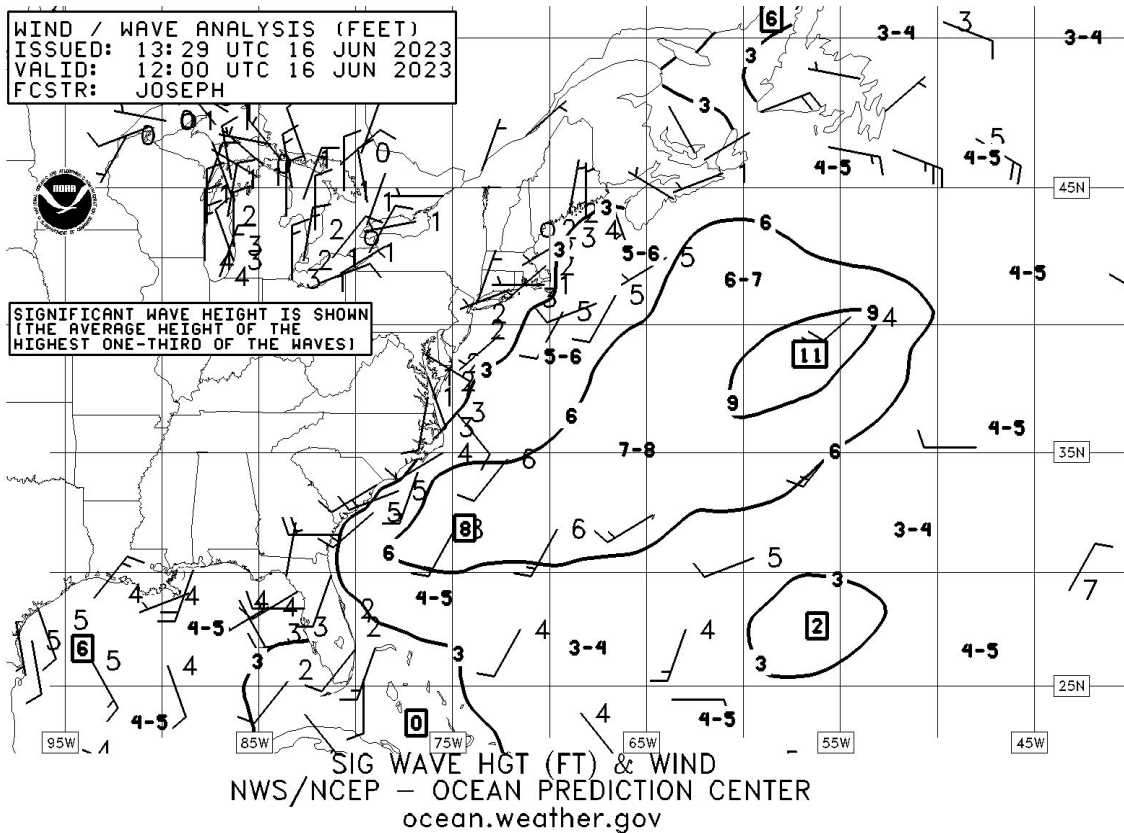


Figure 12. OPC marine wind and wave analysis valid at 0930 NDT on June 16.

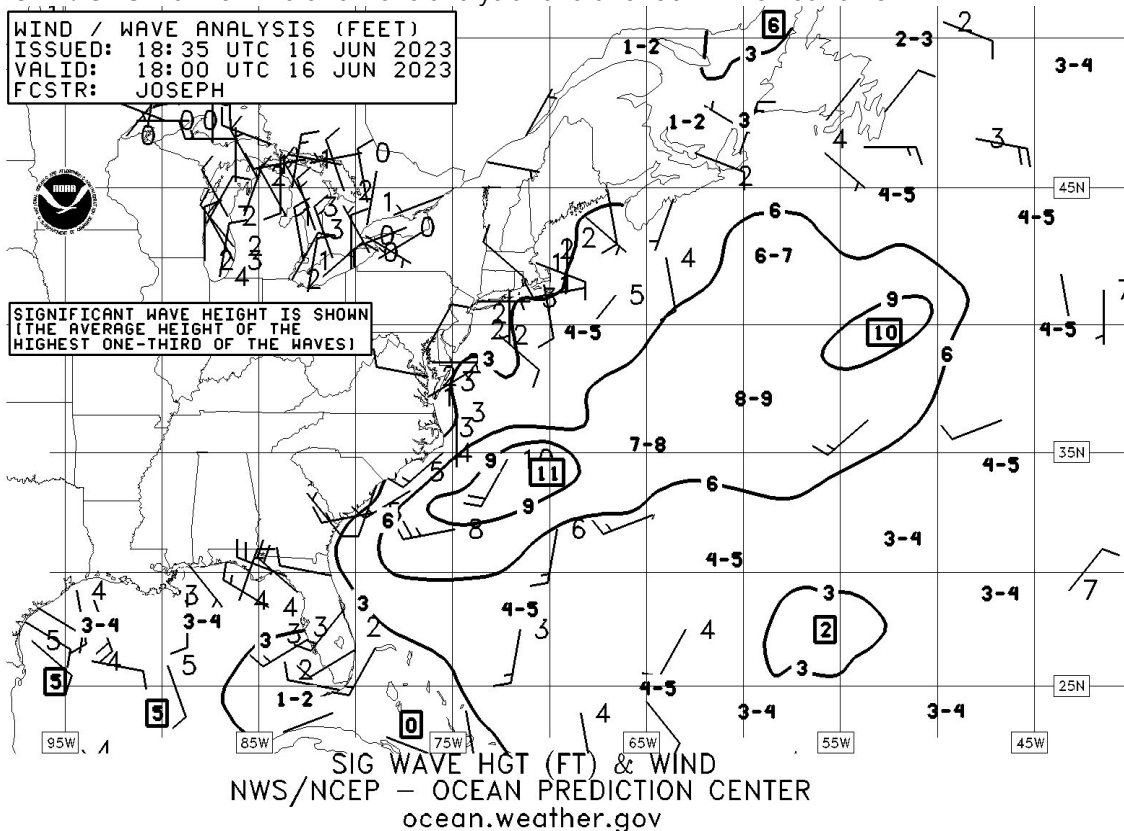


Figure 13. OPC marine wind and wave analysis valid at 1530 NDT on June 16.

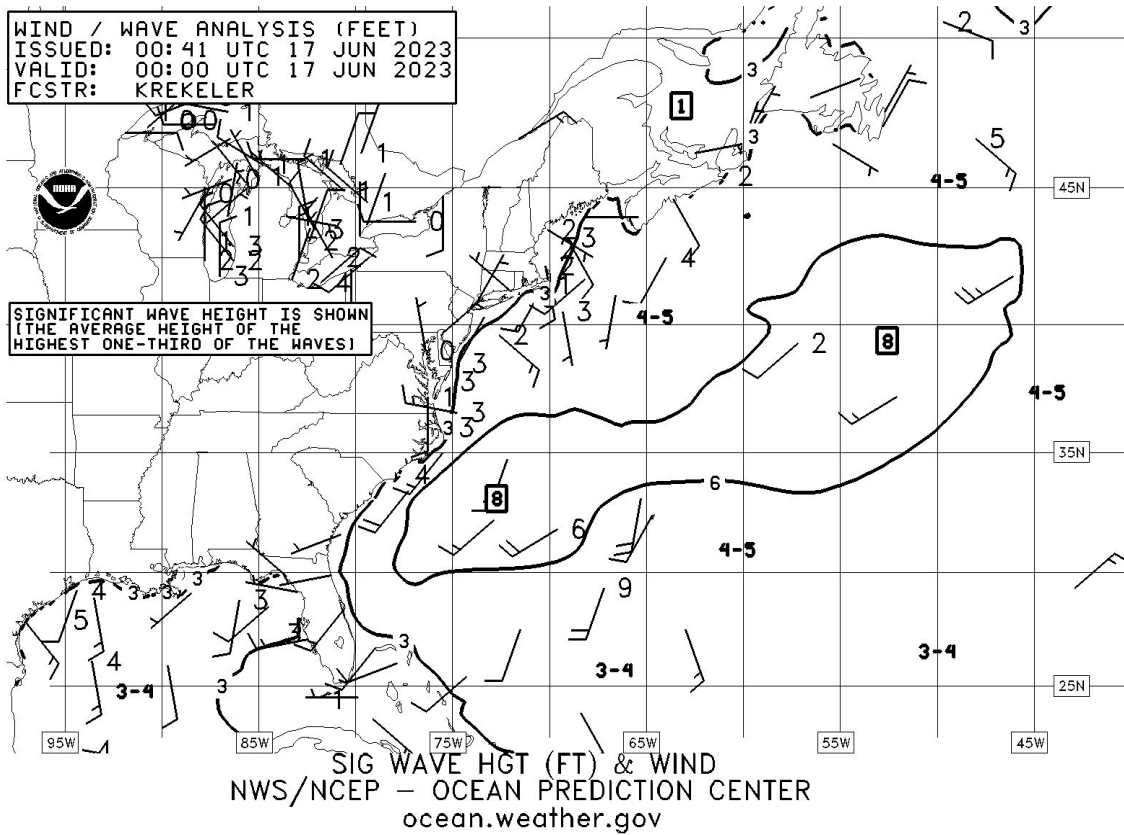


Figure 14. OPC marine wind and wave analysis valid at 2130 NDT on June 16.

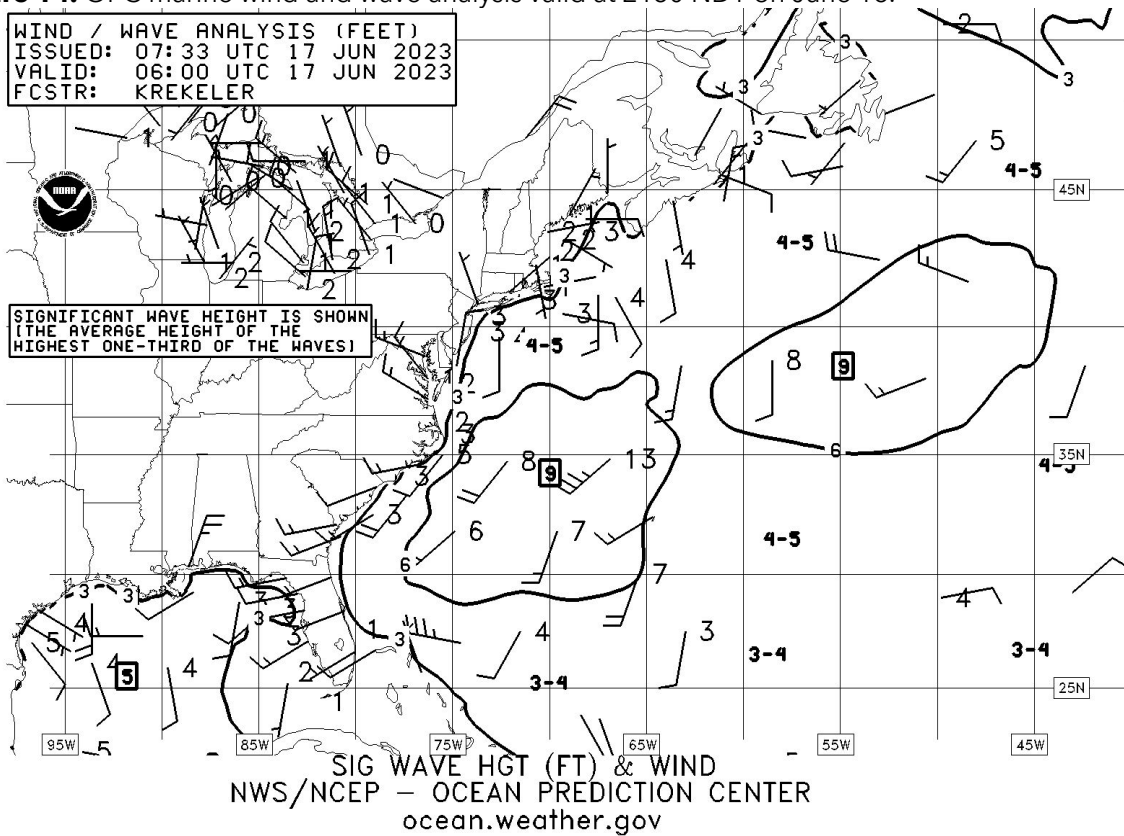


Figure 15. OPC marine wind and wave analysis valid at 0330 NDT on June 17.

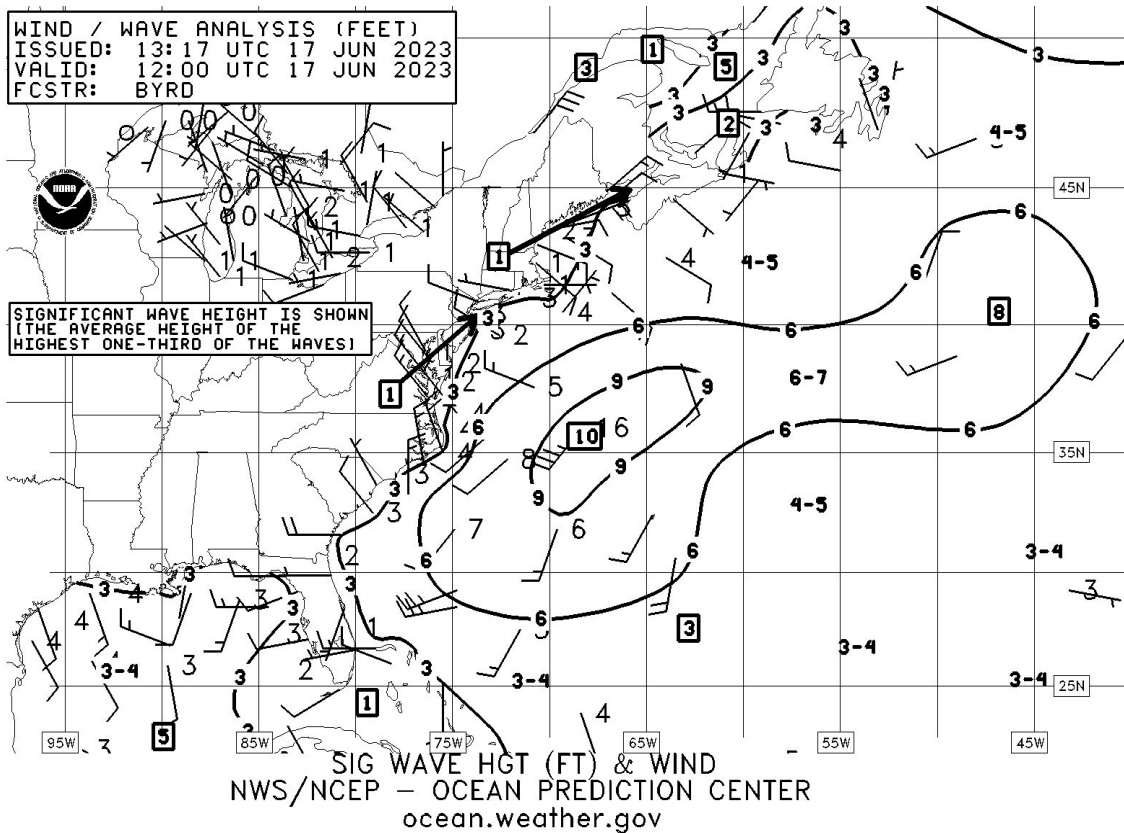


Figure 16. OPC marine wind and wave analysis valid at 0930 NDT on June 17.

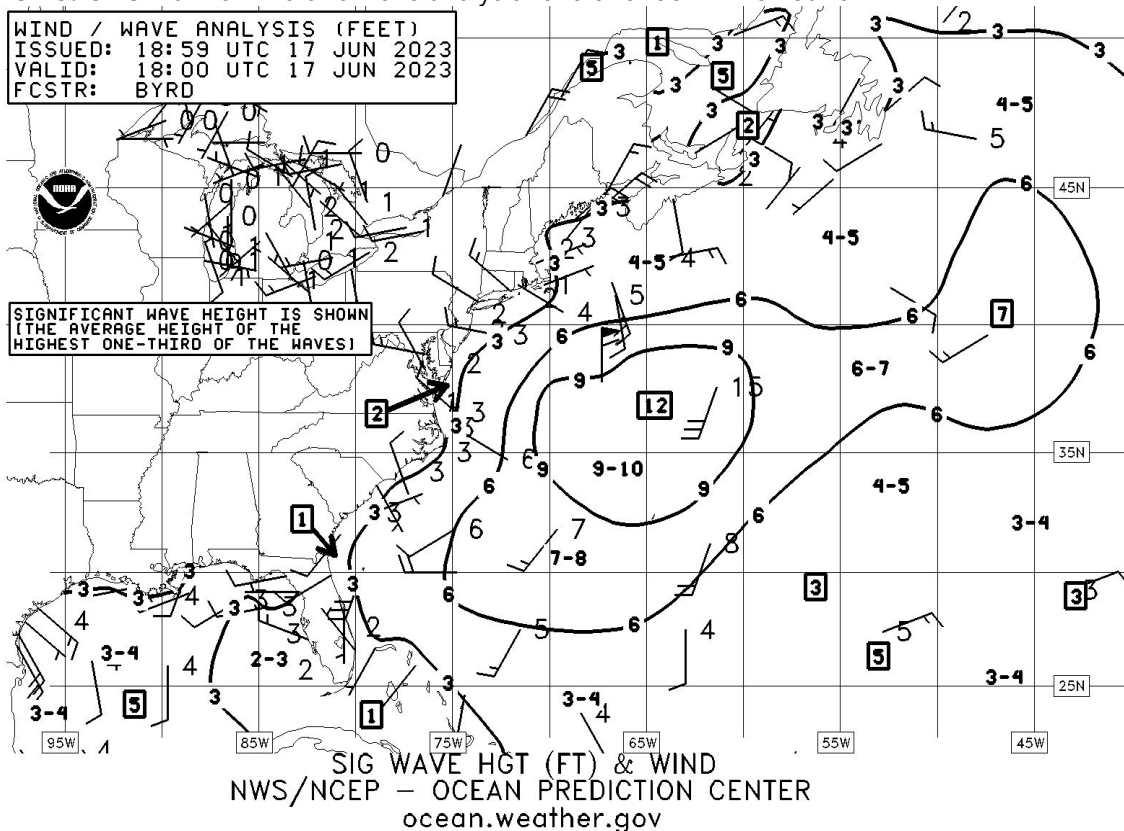


Figure 17. OPC marine wind and wave analysis valid at 1530 NDT on June 17.

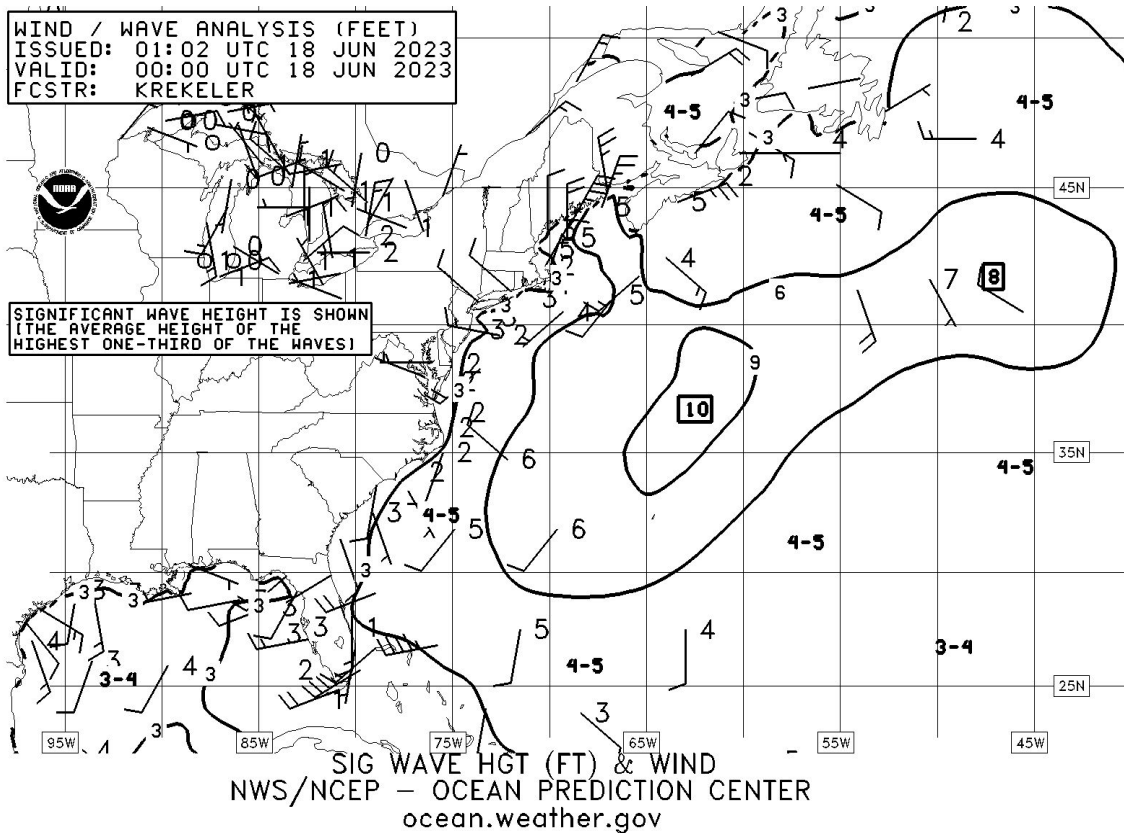


Figure 18. OPC marine wind and wave analysis valid at 2130 NDT on June 17.

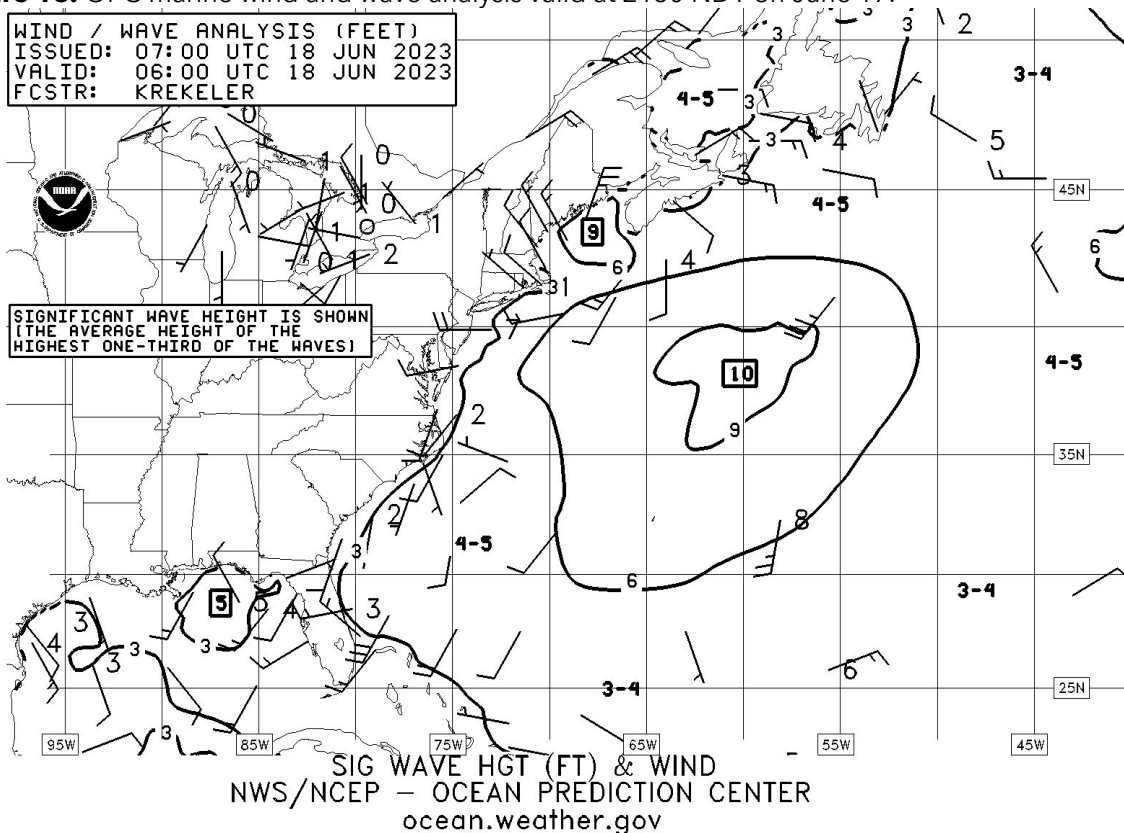


Figure 19. OPC marine wind and wave analysis valid at 0330 NDT on June 18.

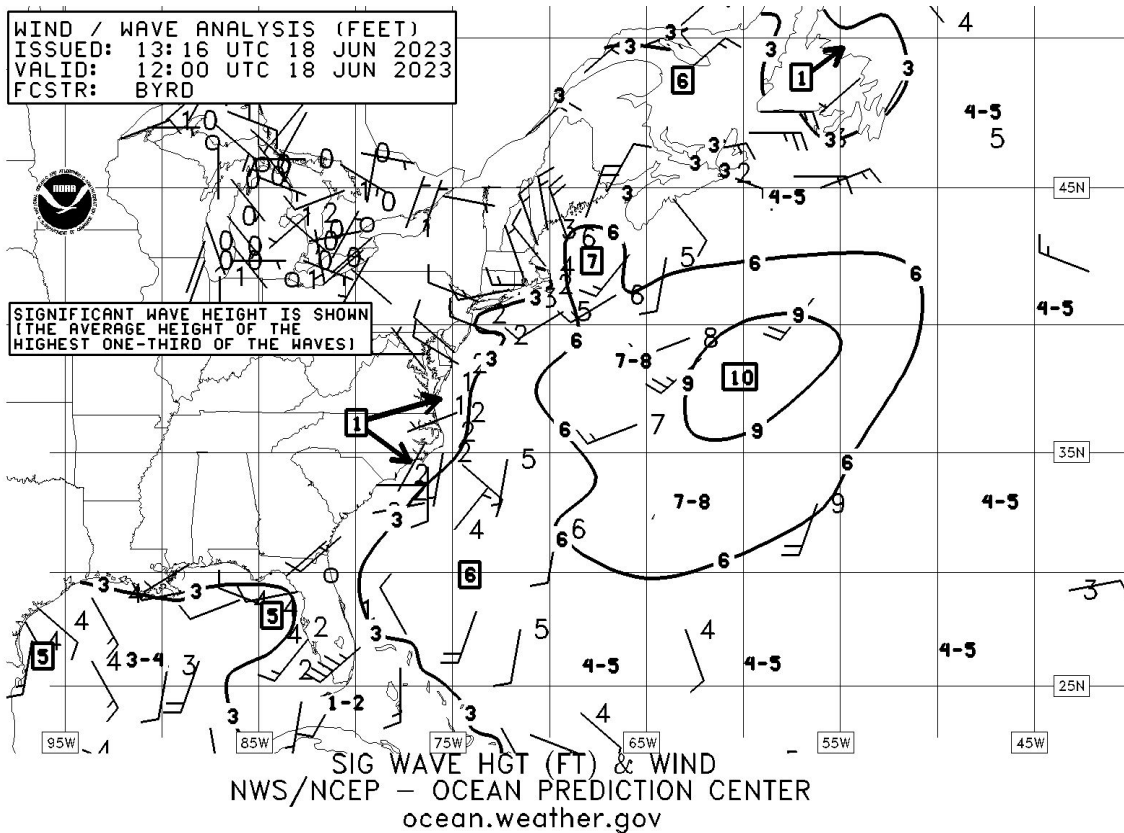


Figure 20. OPC marine wind and wave analysis valid at 0930 NDT on June 18.

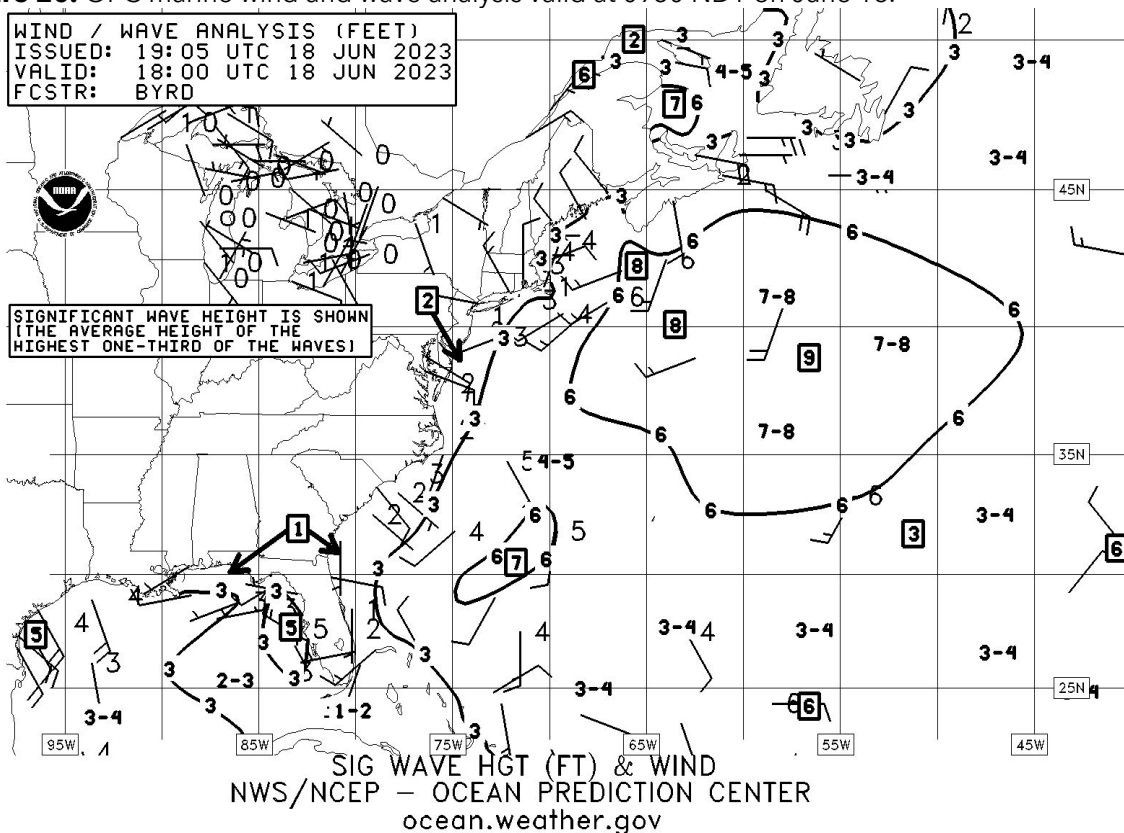
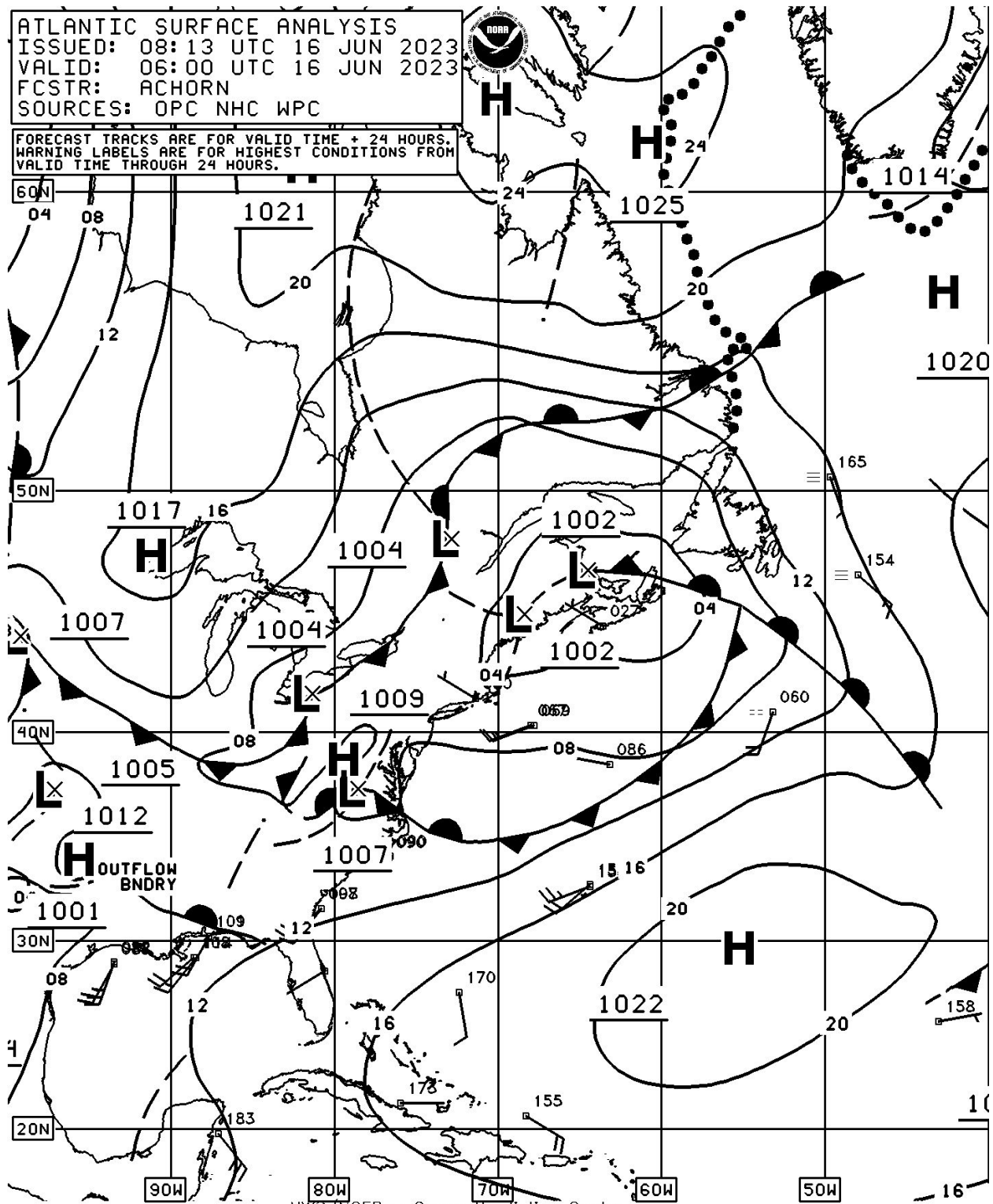


Figure 21. OPC marine wind and wave analysis valid at 1530 NDT on June 18.

ATLANTIC SURFACE ANALYSIS
 ISSUED: 08:13 UTC 16 JUN 2023
 VALID: 06:00 UTC 16 JUN 2023
 FCSTR: ACHORN
 SOURCES: OPC NHC WPC

FORECAST TRACKS ARE FOR VALID TIME + 24 HOURS.
 WARNING LABELS ARE FOR HIGHEST CONDITIONS FROM
 VALID TIME THROUGH 24 HOURS.



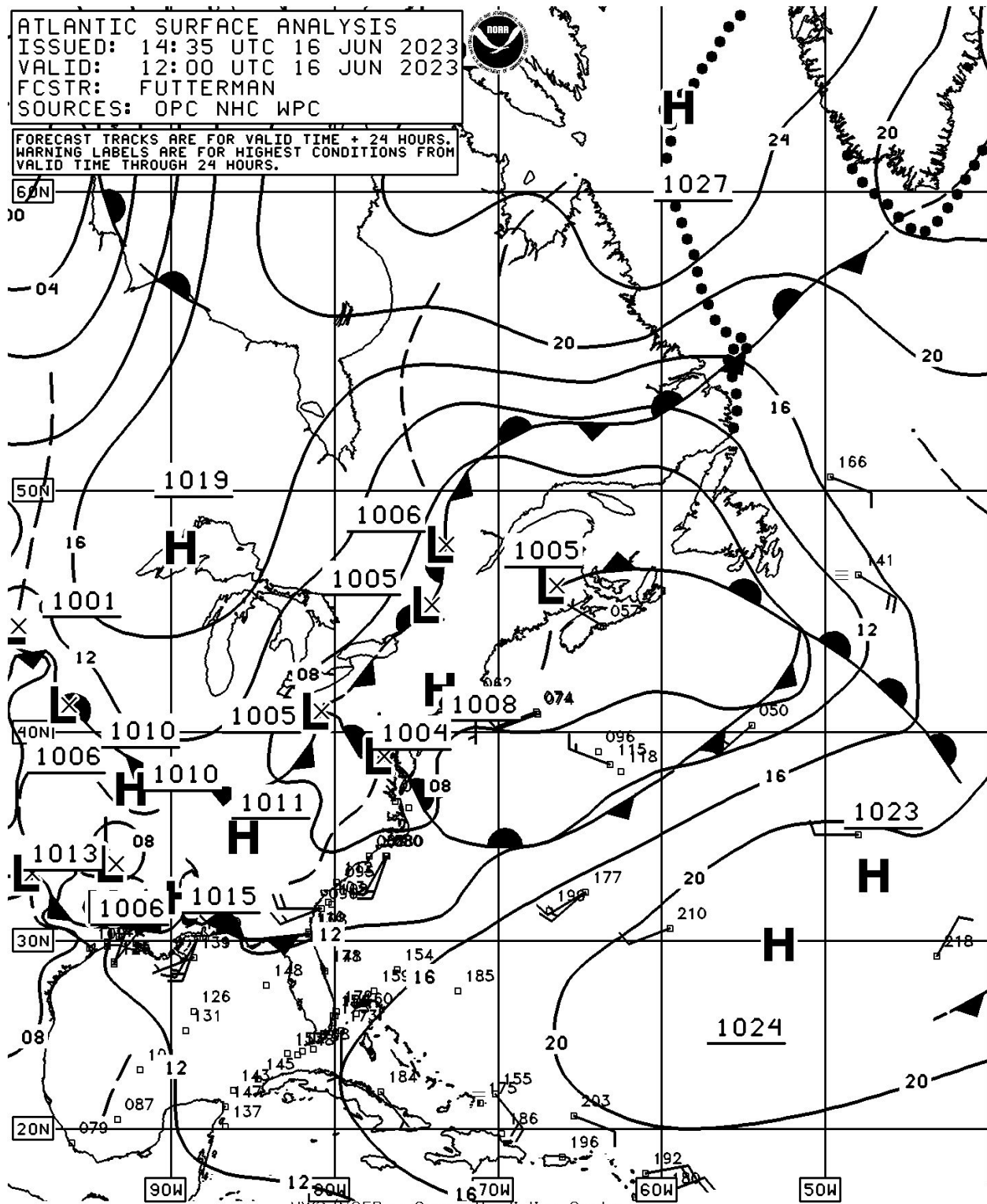
NWS/NCEP - Ocean Prediction Center
 ocean.weather.gov

Figure 22. OPC Atlantic surface analysis valid at 0330 NDT on June 16.

ATLANTIC SURFACE ANALYSIS
 ISSUED: 14:35 UTC 16 JUN 2023
 VALID: 12:00 UTC 16 JUN 2023
 FCSTR: FUTTERMAN
 SOURCES: OPC NHC WPC



FORECAST TRACKS ARE FOR VALID TIME + 24 HOURS.
 WARNING LABELS ARE FOR HIGHEST CONDITIONS FROM
 VALID TIME THROUGH 24 HOURS.

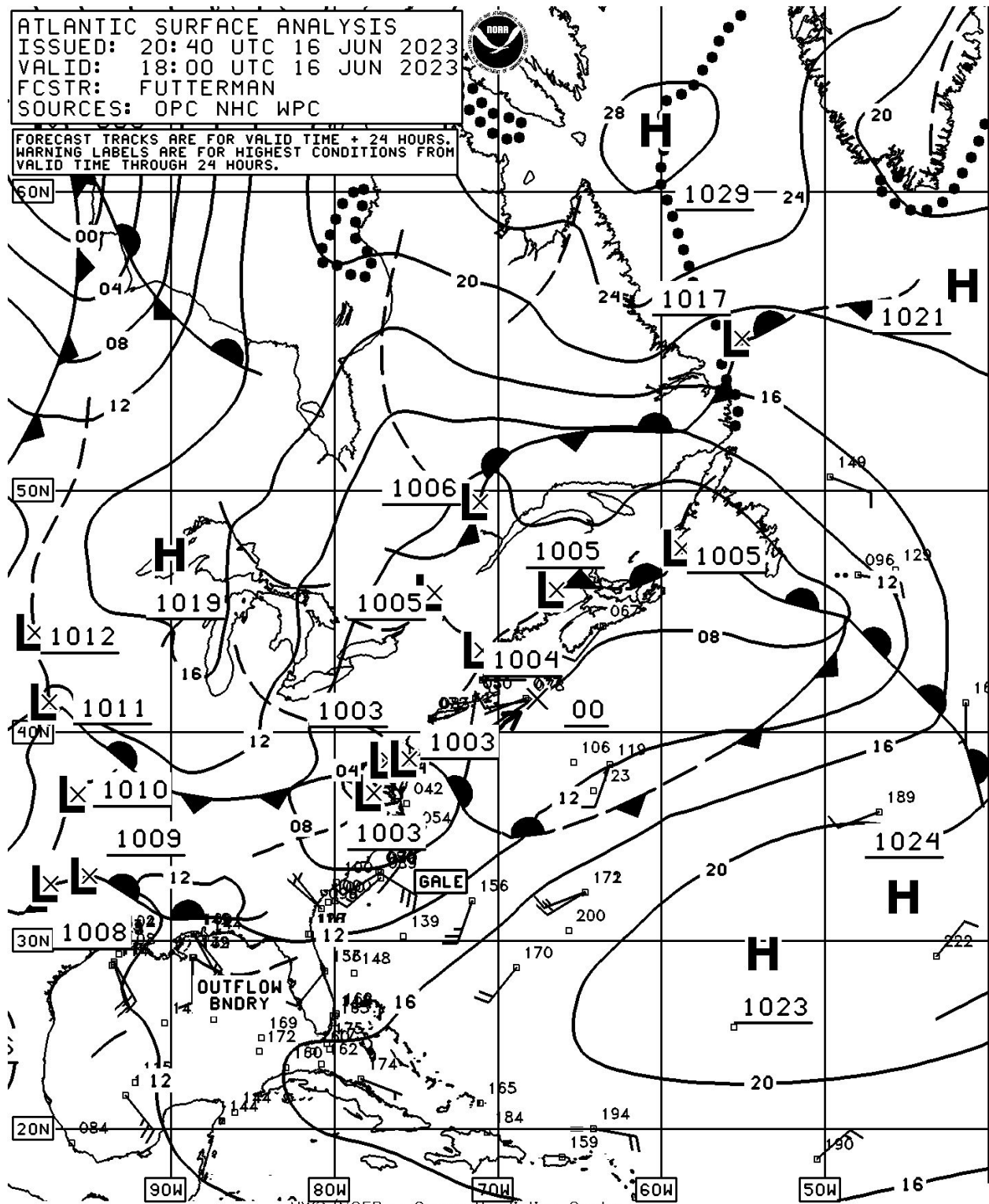


NWS/NCEP - Ocean Prediction Center
 ocean.weather.gov

Figure 23. OPC Atlantic surface analysis valid at 0930 NDT on June 16.

ATLANTIC SURFACE ANALYSIS
 ISSUED: 20:40 UTC 16 JUN 2023
 VALID: 18:00 UTC 16 JUN 2023
 FCSTR: FUTTERMAN
 SOURCES: OPC NHC WPC

FORECAST TRACKS ARE FOR VALID TIME + 24 HOURS.
 WARNING LABELS ARE FOR HIGHEST CONDITIONS FROM
 VALID TIME THROUGH 24 HOURS.



NWS/NCEP - Ocean Prediction Center
 ocean.weather.gov

Figure 24. OPC Atlantic surface analysis valid at 1530 NDT on June 16.

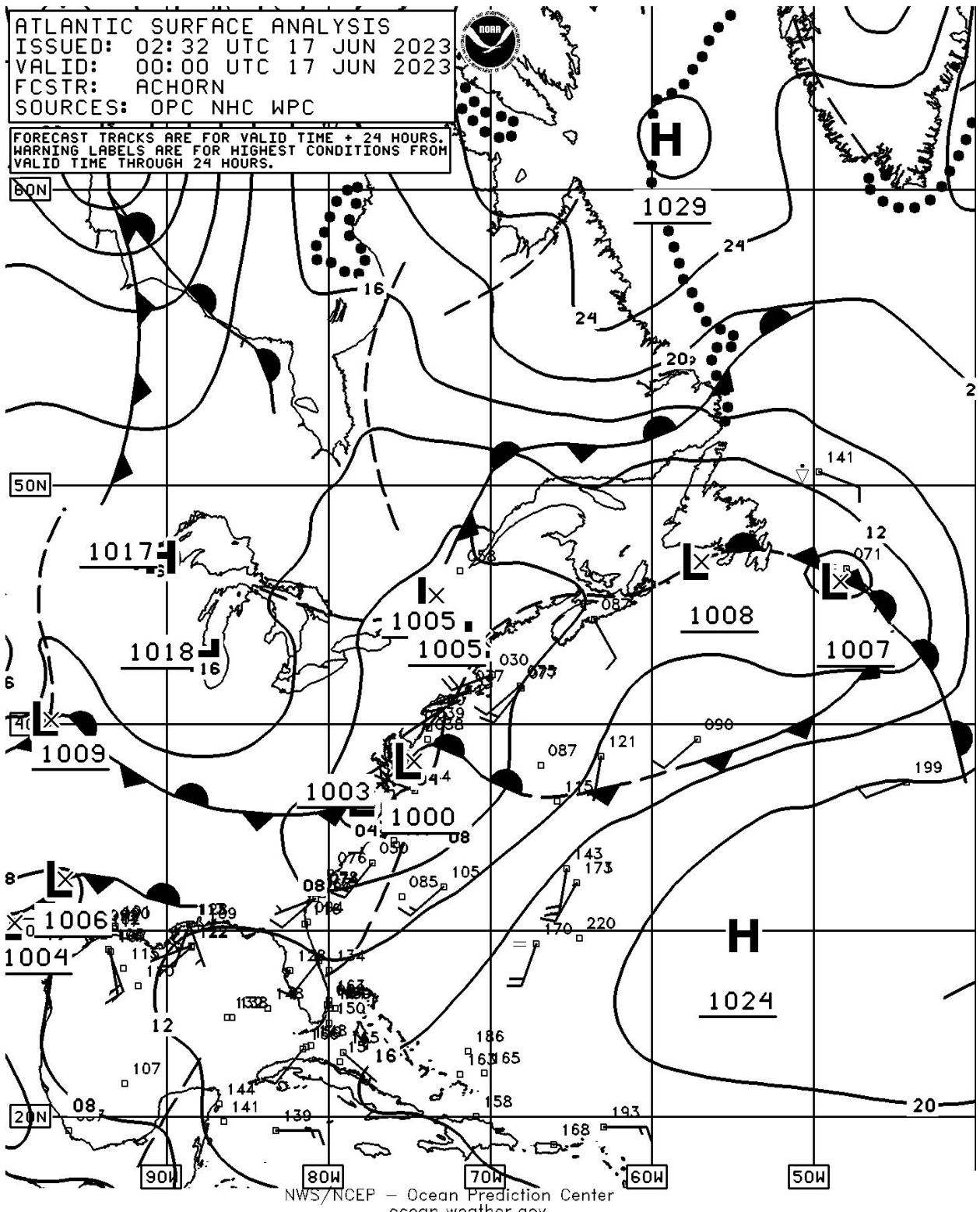


Figure 25. OPC Atlantic surface analysis valid at 2130 NDT on June 16.

ATLANTIC SURFACE ANALYSIS
 ISSUED: 08:22 UTC 17 JUN 2023
 VALID: 06:00 UTC 17 JUN 2023
 FCSTR: ACHORN
 SOURCES: OPC NHC WPC

FORECAST TRACKS ARE FOR VALID TIME + 24 HOURS.
 WARNING LABELS ARE FOR HIGHEST CONDITIONS FROM
 VALID TIME THROUGH 24 HOURS.

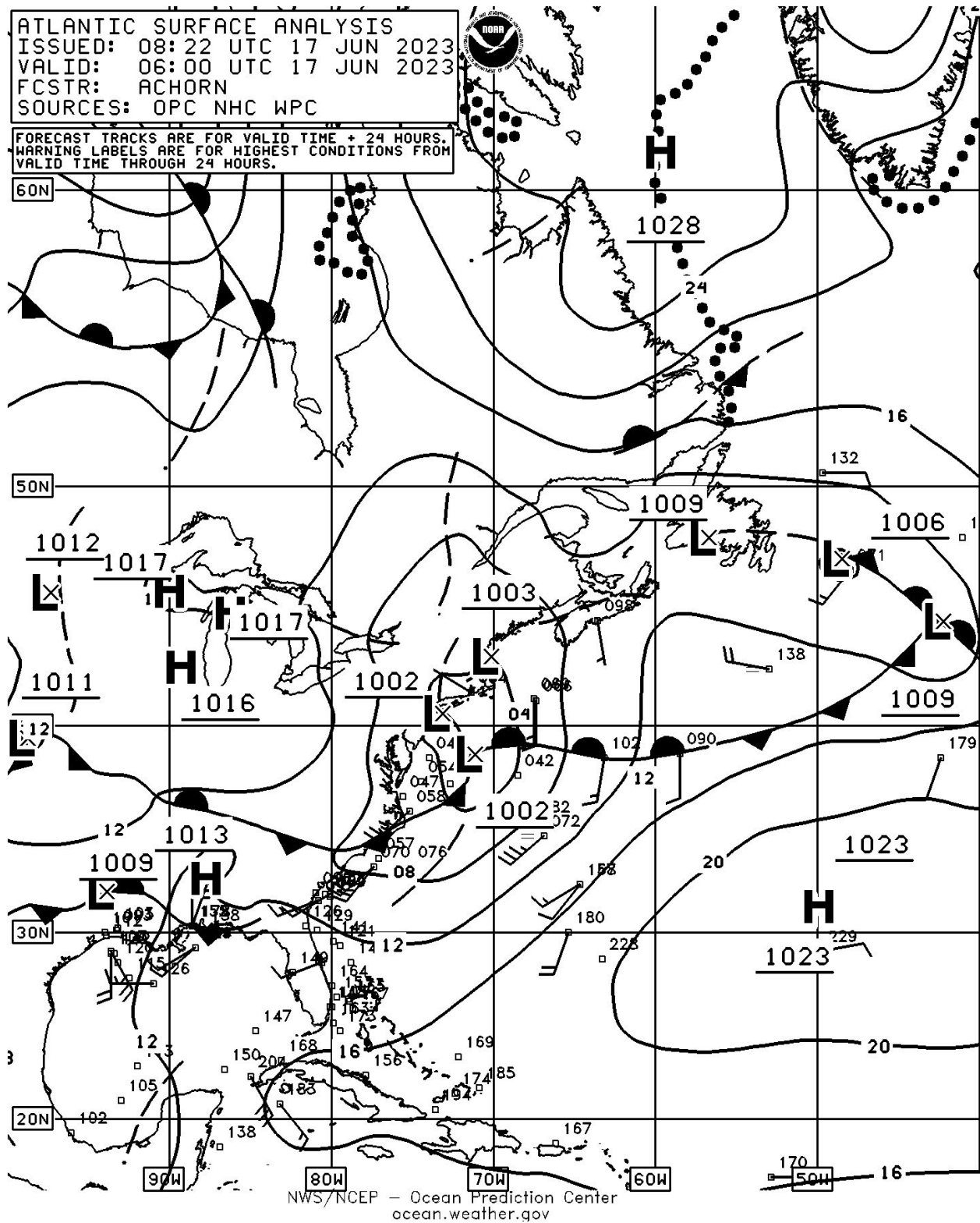
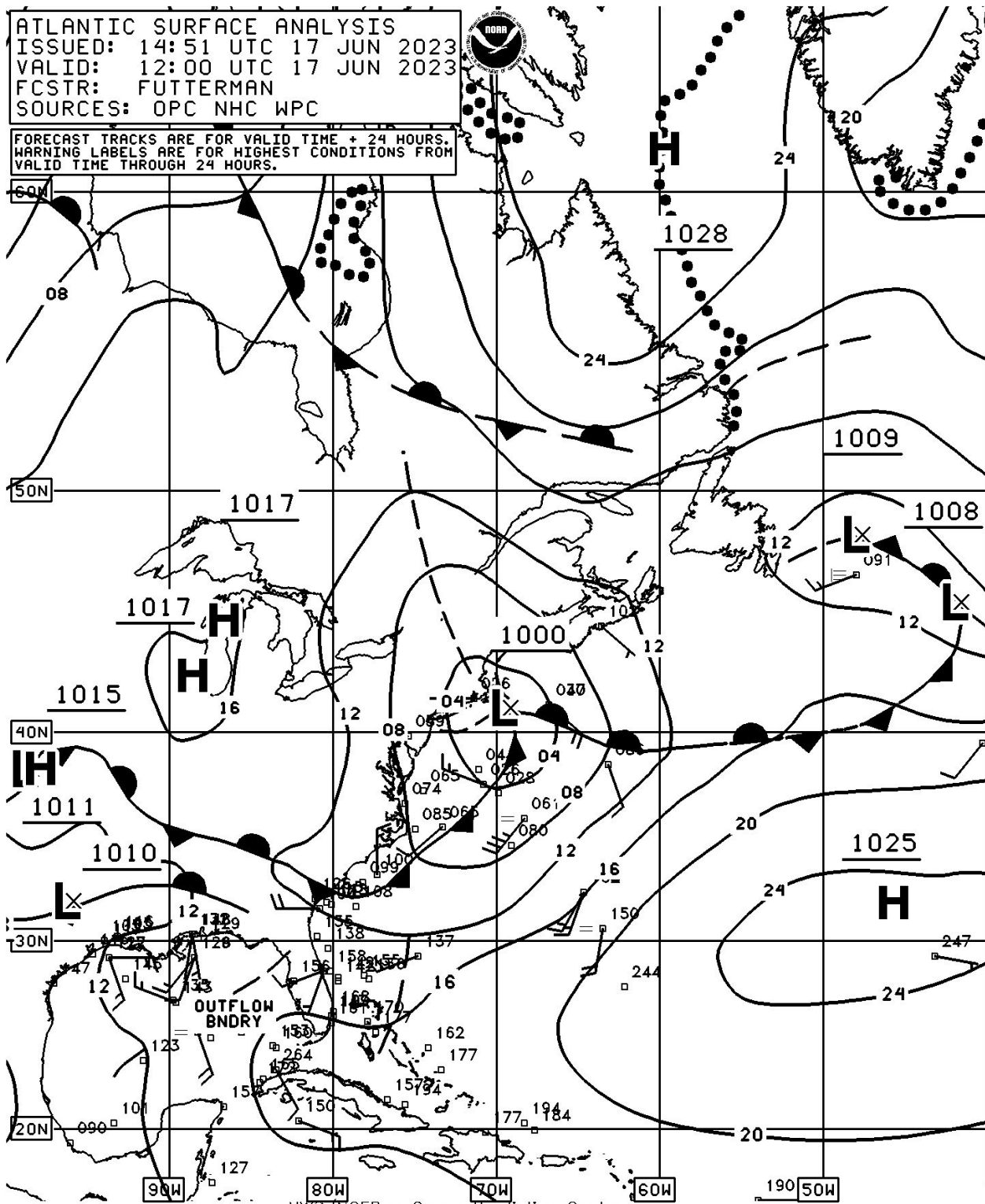


Figure 26. OPC Atlantic surface analysis valid at 0330 NDT on June 17.

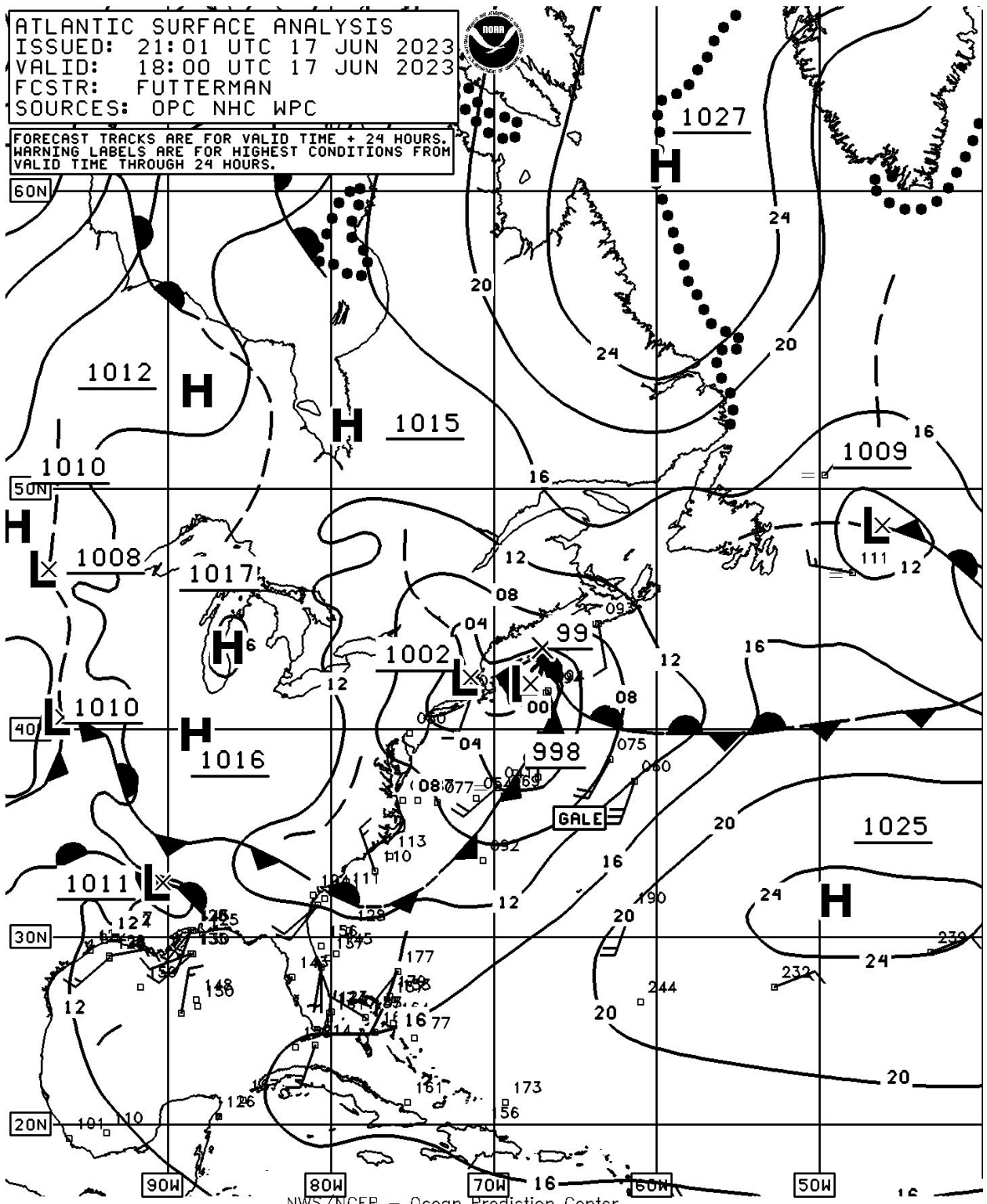
ATLANTIC SURFACE ANALYSIS
 ISSUED: 14:51 UTC 17 JUN 2023
 VALID: 12:00 UTC 17 JUN 2023
 FCSTR: FUTTERMAN
 SOURCES: OPC NHC WPC

FORECAST TRACKS ARE FOR VALID TIME + 24 HOURS.
 WARNING LABELS ARE FOR HIGHEST CONDITIONS FROM
 VALID TIME THROUGH 24 HOURS.



NWS/NCEP - Ocean Prediction Center
 ocean.weather.gov

Figure 27. OPC Atlantic surface analysis valid at 0930 NDT on June 17.

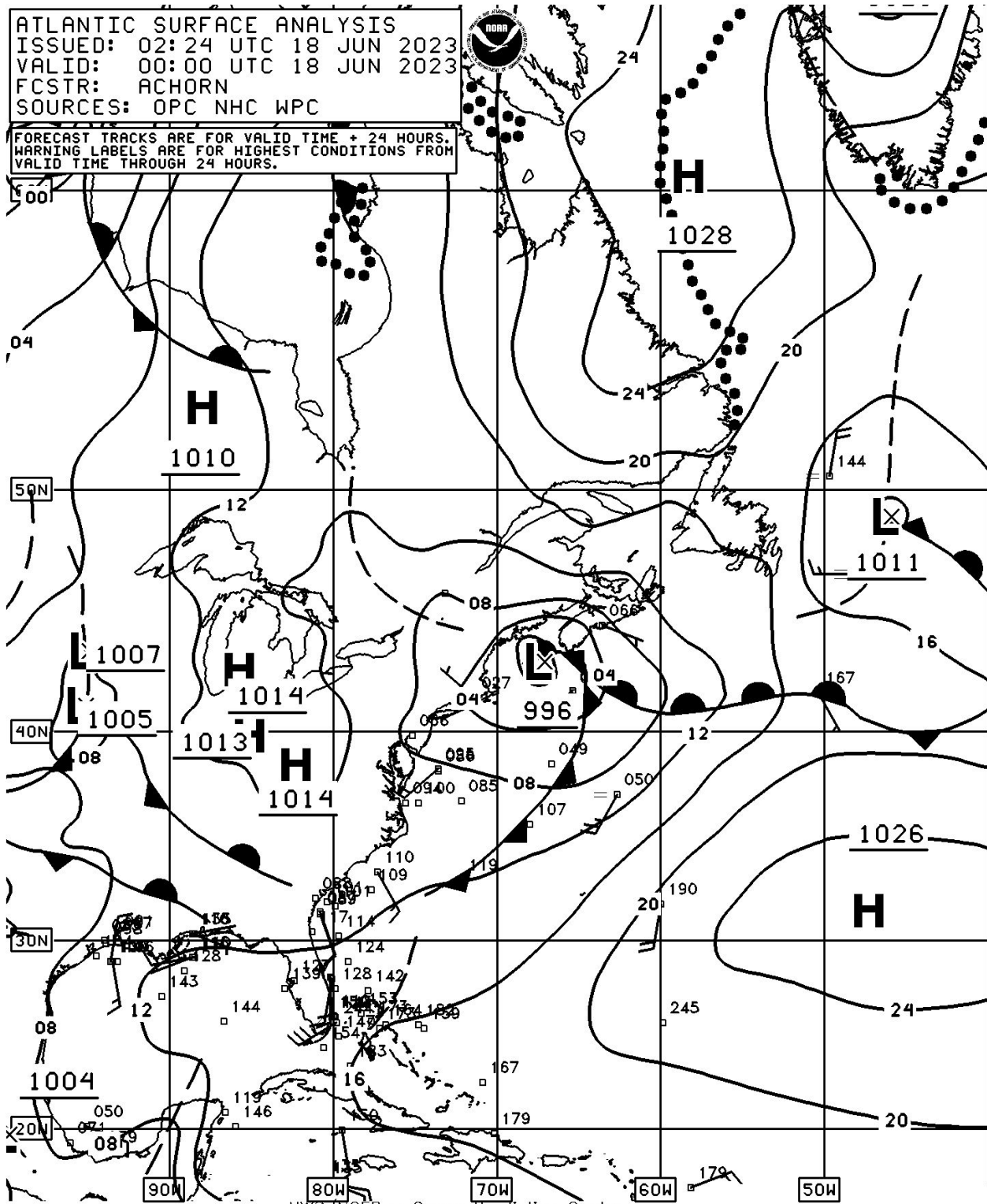


NWS/NCEP – Ocean Prediction Center
 ocean.weather.gov

Figure 28. OPC Atlantic surface analysis valid at 1530 NDT on June 17.

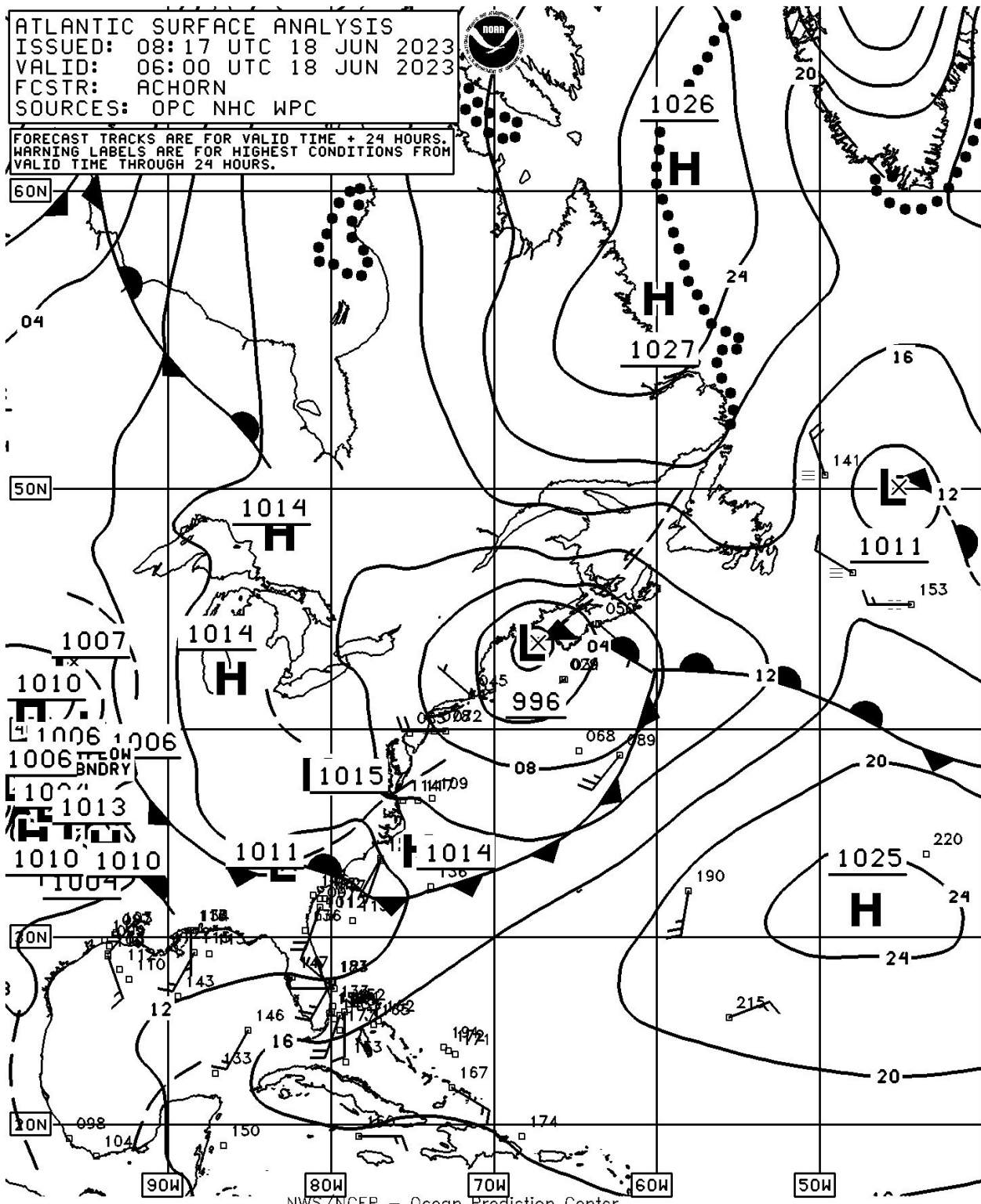
ATLANTIC SURFACE ANALYSIS
 ISSUED: 02:24 UTC 18 JUN 2023
 VALID: 00:00 UTC 18 JUN 2023
 FCSTR: ACHORN
 SOURCES: OPC NHC WPC

FORECAST TRACKS ARE FOR VALID TIME + 24 HOURS.
 WARNING LABELS ARE FOR HIGHEST CONDITIONS FROM
 VALID TIME THROUGH 24 HOURS.



NWS/NCEP - Ocean Prediction Center
 ocean.weather.gov

Figure 29. OPC Atlantic surface analysis valid at 2130 NDT on June 17.



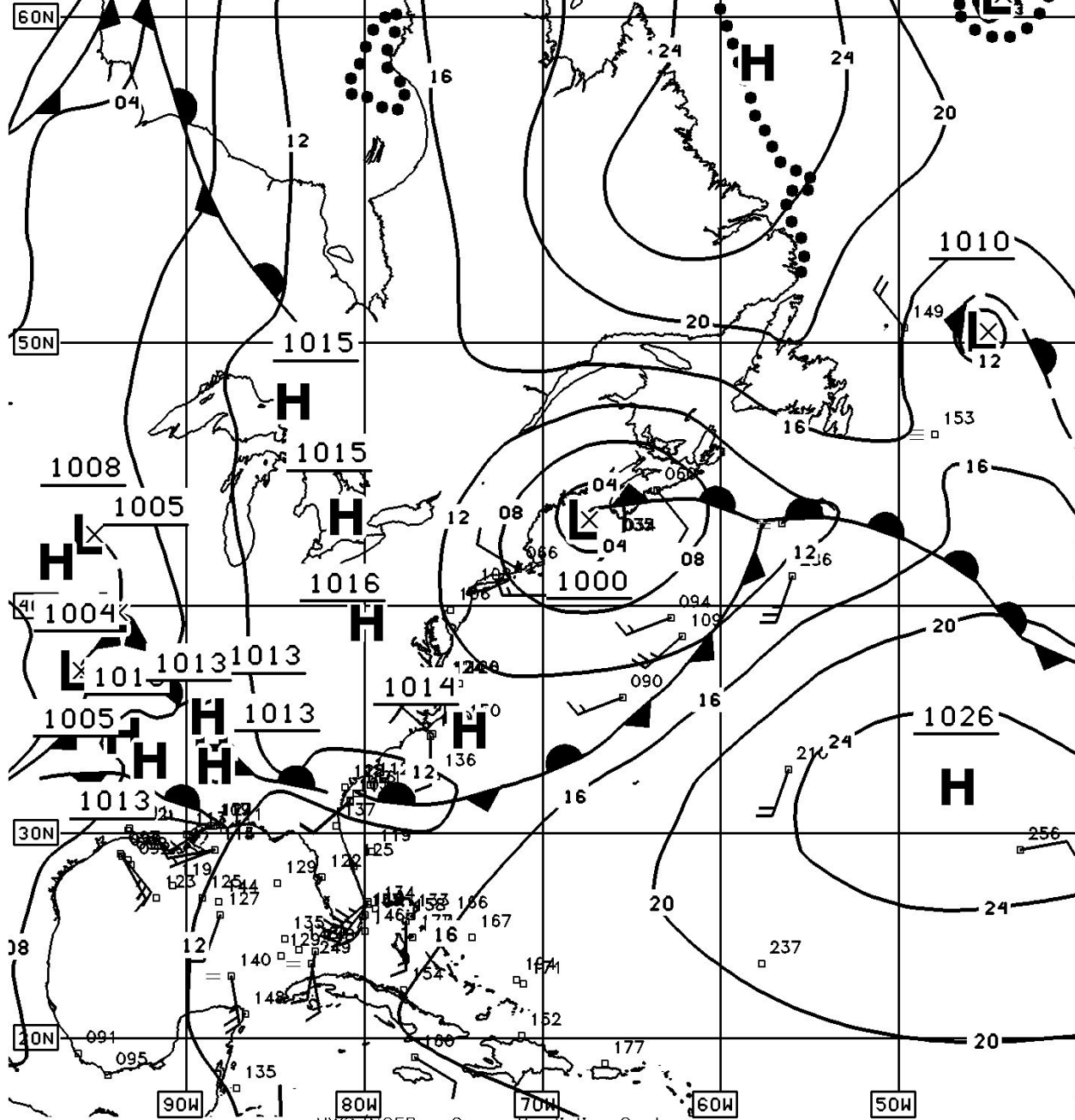
NWS/NCEP - Ocean Prediction Center
 ocean.weather.gov

Figure 30. OPC Atlantic surface analysis valid at 0330 NDT on June 18.

ATLANTIC SURFACE ANALYSIS
 ISSUED: 16:03 UTC 18 JUN 2023
 VALID: 12:00 UTC 18 JUN 2023
 FCSTR: FUTTERMAN
 SOURCES: OPC NHC WPC



FORECAST TRACKS ARE FOR VALID TIME + 24 HOURS.
 WARNING LABELS ARE FOR HIGHEST CONDITIONS FROM
 VALID TIME THROUGH 24 HOURS.

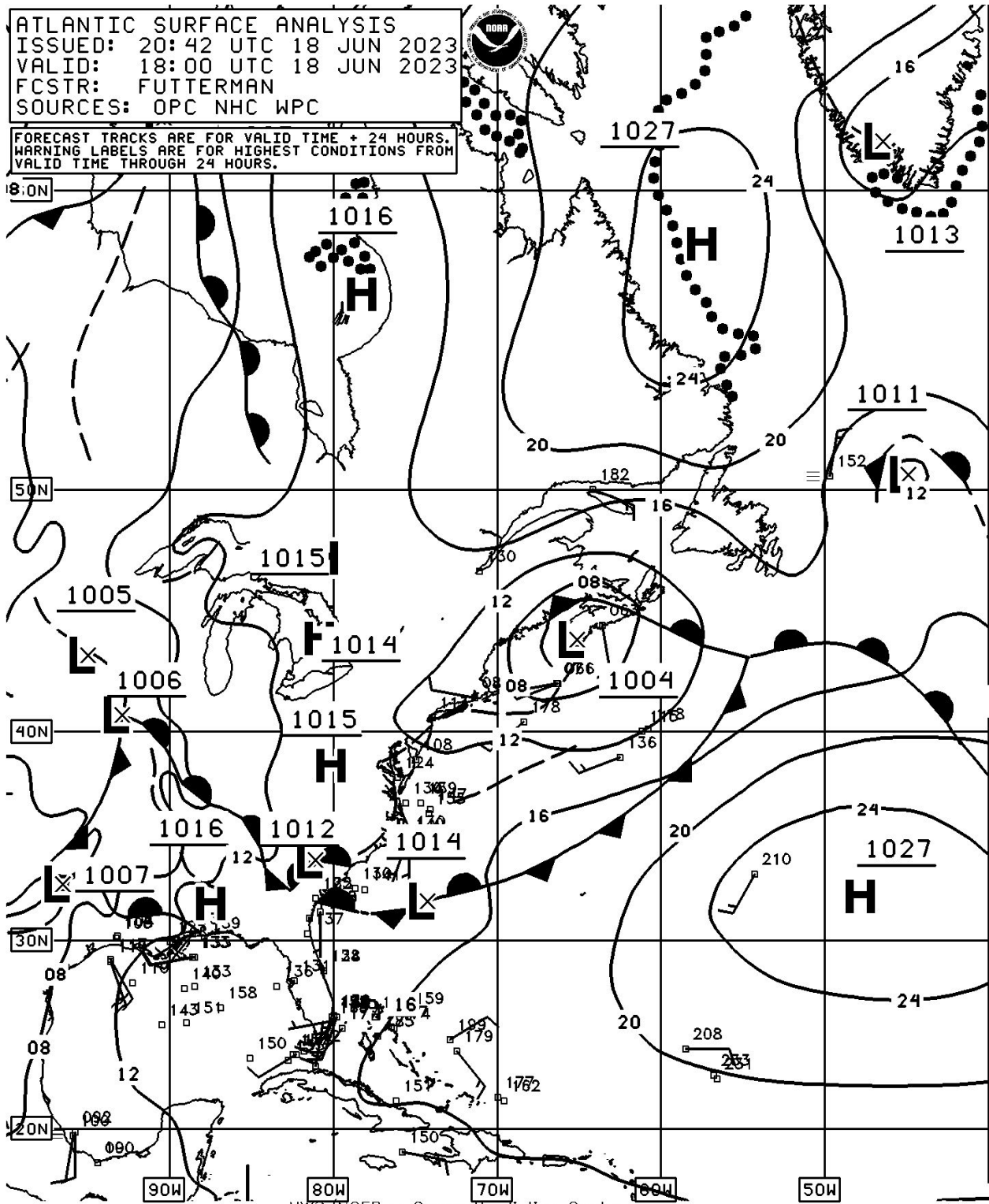


NWS/NCEP - Ocean Prediction Center
 ocean.weather.gov

Figure 31. OPC Atlantic surface analysis valid at 0930 NDT on June 18.

ATLANTIC SURFACE ANALYSIS
 ISSUED: 20:42 UTC 18 JUN 2023
 VALID: 18:00 UTC 18 JUN 2023
 FCSTR: FUTTERMAN
 SOURCES: OPC NHC WPC

FORECAST TRACKS ARE FOR VALID TIME + 24 HOURS.
 WARNING LABELS ARE FOR HIGHEST CONDITIONS FROM
 VALID TIME THROUGH 24 HOURS.



NWS/NCEP - Ocean Prediction Center
 ocean.weather.gov

Figure 32. OPC Atlantic surface analysis valid at 1530 NDT on June 18.