

NATIONAL TRANSPORTATION SAFETY BOARD

Vehicle Recorder Division
Washington, DC 20594

October 7, 2020

Voyage Data Recorder (VDR)

Specialist's Factual Report

By Christopher Babcock

1. EVENT SUMMARY

Location: Laplace, Louisiana
Date: May 16, 2019
Vessel: *American Liberty*
IMO: 9763851
Operator: Crowley Marine
NTSB Number: DCA19FM034

2. DETAILS OF INVESTIGATION

The National Transportation Safety Board (NTSB) Vehicle Recorder Division received data from the following VDR:

Device Manufacturer/Model:	Consilium F2
Serial Number:	N/A

2.1. VDR Carriage Requirement

The *American Liberty* was constructed in 2017. The VDR installed must meet the International Maritime Organization requirements outlined in IMO Resolution MSC.333(90).¹

2.2. Consilium F2 VDR Description

The Consilium F2 is a VDR system capable of recording navigation, propulsion, steering, alarm, and automatic identification system (AIS) data. Additionally, bridge audio and communications audio channels are recorded by the systems. A minimum of 720 hours of data are recorded in the long-term recording medium by the system.

¹ IMO Resolution MSC.333(90).
[http://www.imo.org/en/KnowledgeCentre/IndexofIMOResolutions/Documents/MSC%20-%20Maritime%20Safety/333\(90\).pdf](http://www.imo.org/en/KnowledgeCentre/IndexofIMOResolutions/Documents/MSC%20-%20Maritime%20Safety/333(90).pdf) accessed July 24, 2020.

2.3. Data Recovery

The data was provided to the NTSB Vehicle Recorder Division as a series of file structures containing bridge audio, parametric data, and radar/ECDIS images. A transcript was developed from the recorded bridge audio.²

2.4. Time Correlation

The extracted data was recorded in universal coordinated time (UTC) and converted to the local Central Daylight Time (CDT) of the accident.

2.5. Overlays and Tabular Data

Figure 1 contains parametric data recorded by the VDR for the entire underway period until the vessel came to a stop. The transverse water speed orientation is such that water approaching the vessel from the port side is indicated by a negative value while water approaching the vessel from the starboard side is indicated by a positive value. The longitudinal water speed orientation is such that water approaching the bow of the vessel is indicated by a positive value while water approaching the stern of the vessel is indicated by a negative value.

Figure 2 contains parametric data from the time period 20:30 to 20:51 CDT. Figure 3 contains parametric data from the time period 20:34:30 to 20:40:00. Figures 4-91 contain Electronic Chart Display and Information System (ECDIS) images displayed to the crew from 20:30 to 20:51 CDT.

² See VDR Audio Group Transcript in the public docket for this accident.

American Liberty

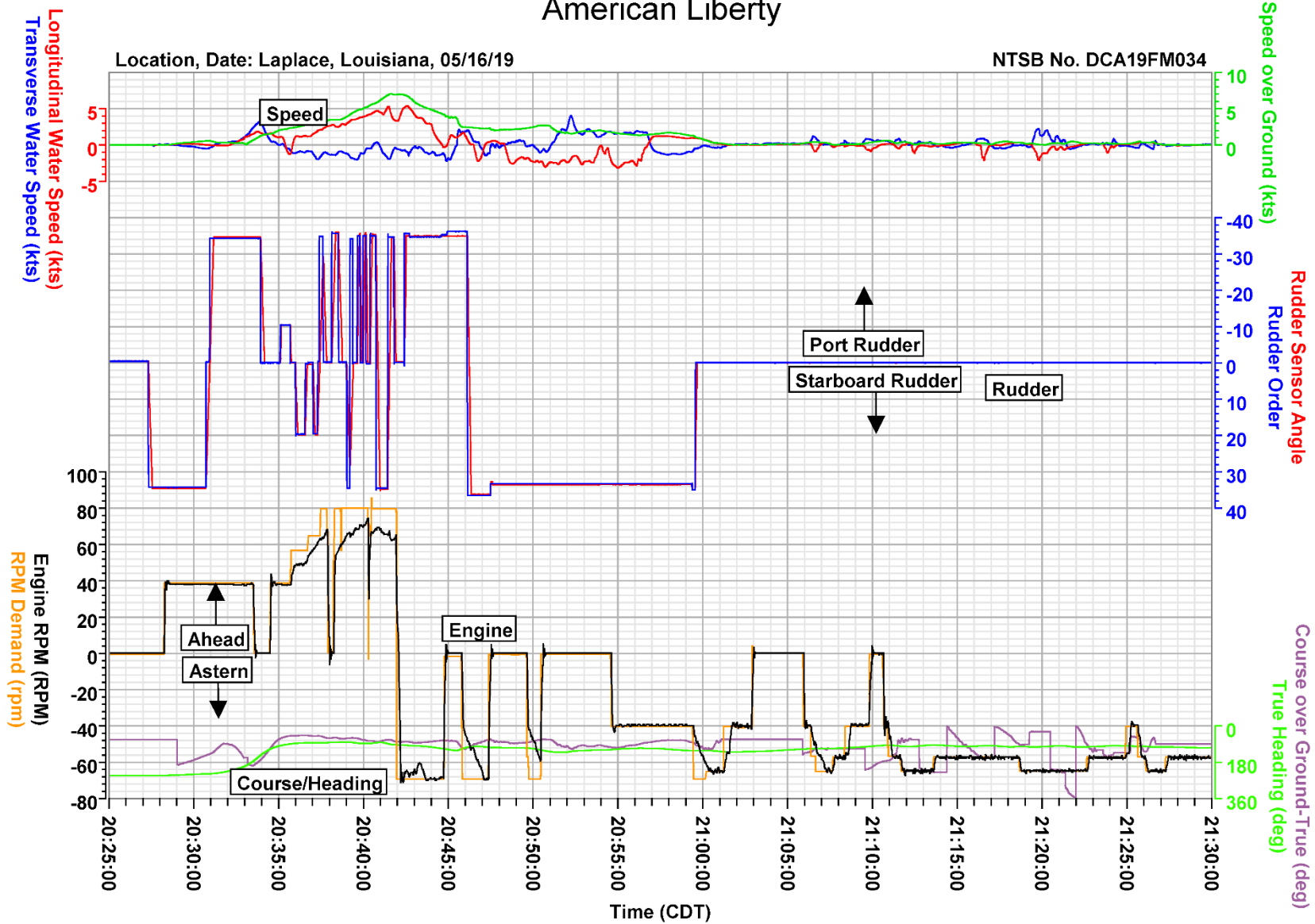


Figure 1. Parametric data from 20:25 CDT to 21:30 CDT.

American Liberty

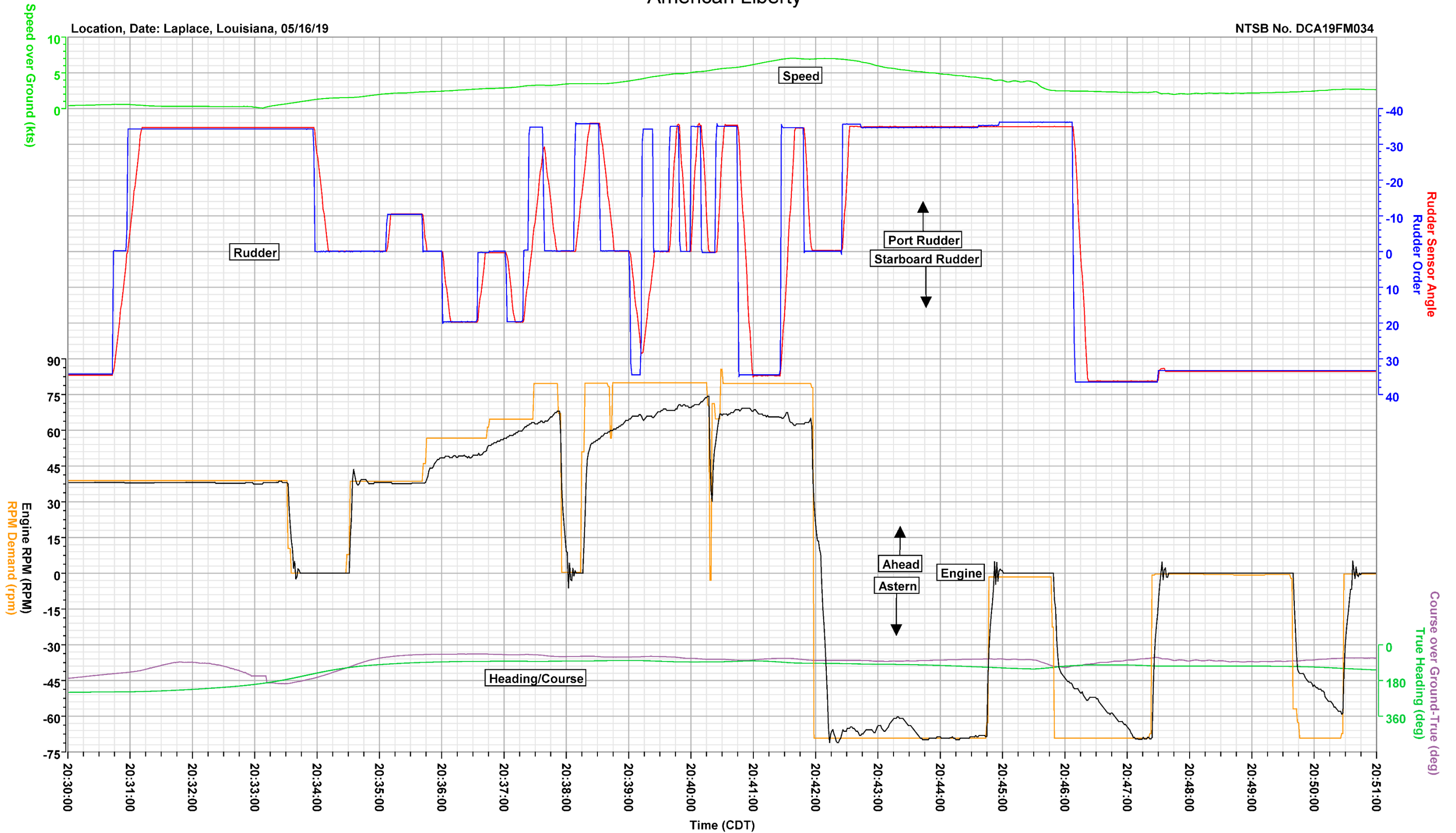


Figure 2. Parametric data from 20:30 CDT to 20:51 CDT.

American Liberty

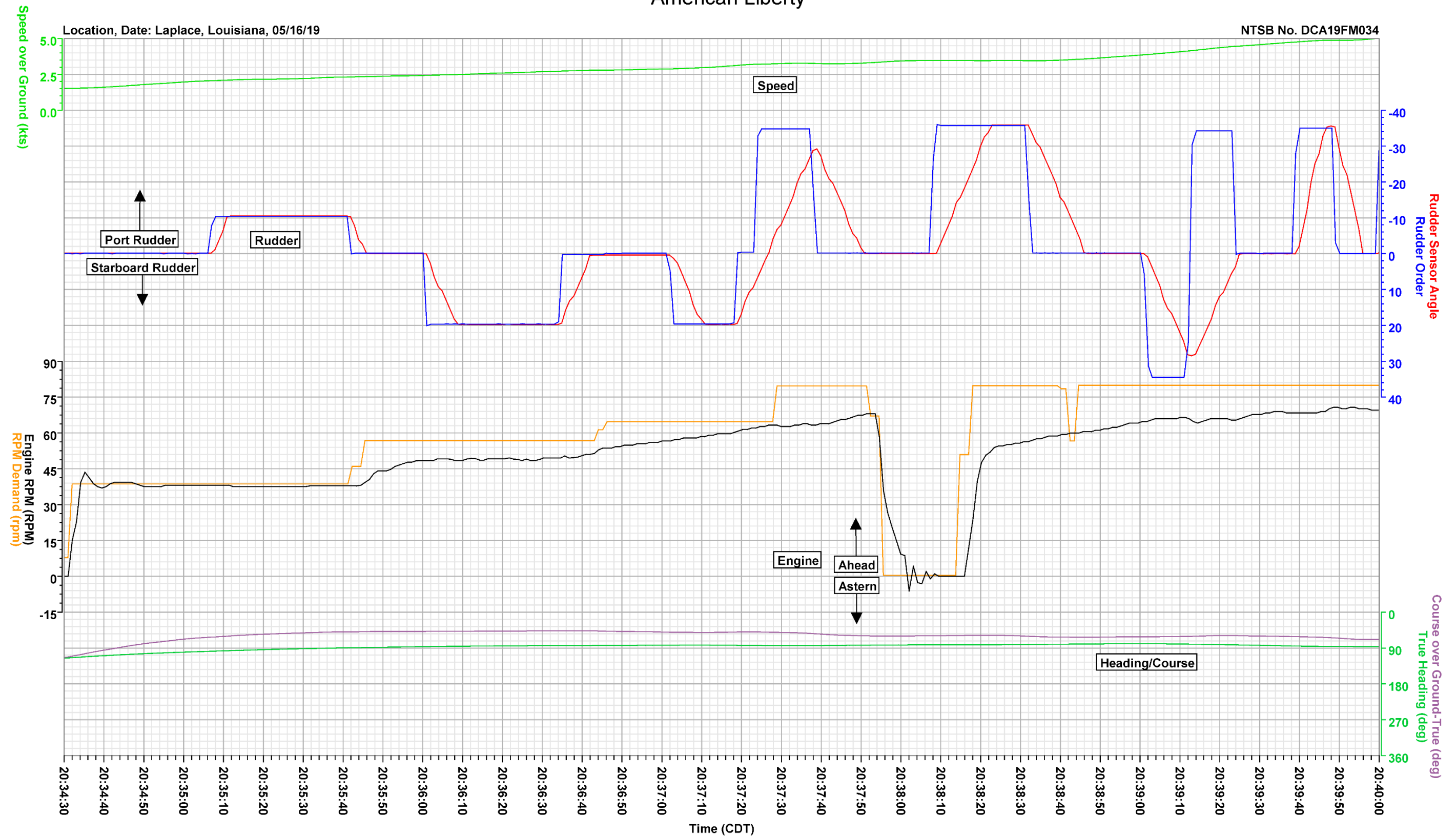


Figure 3. Parametric data from 20:34:40 to 20:40:00



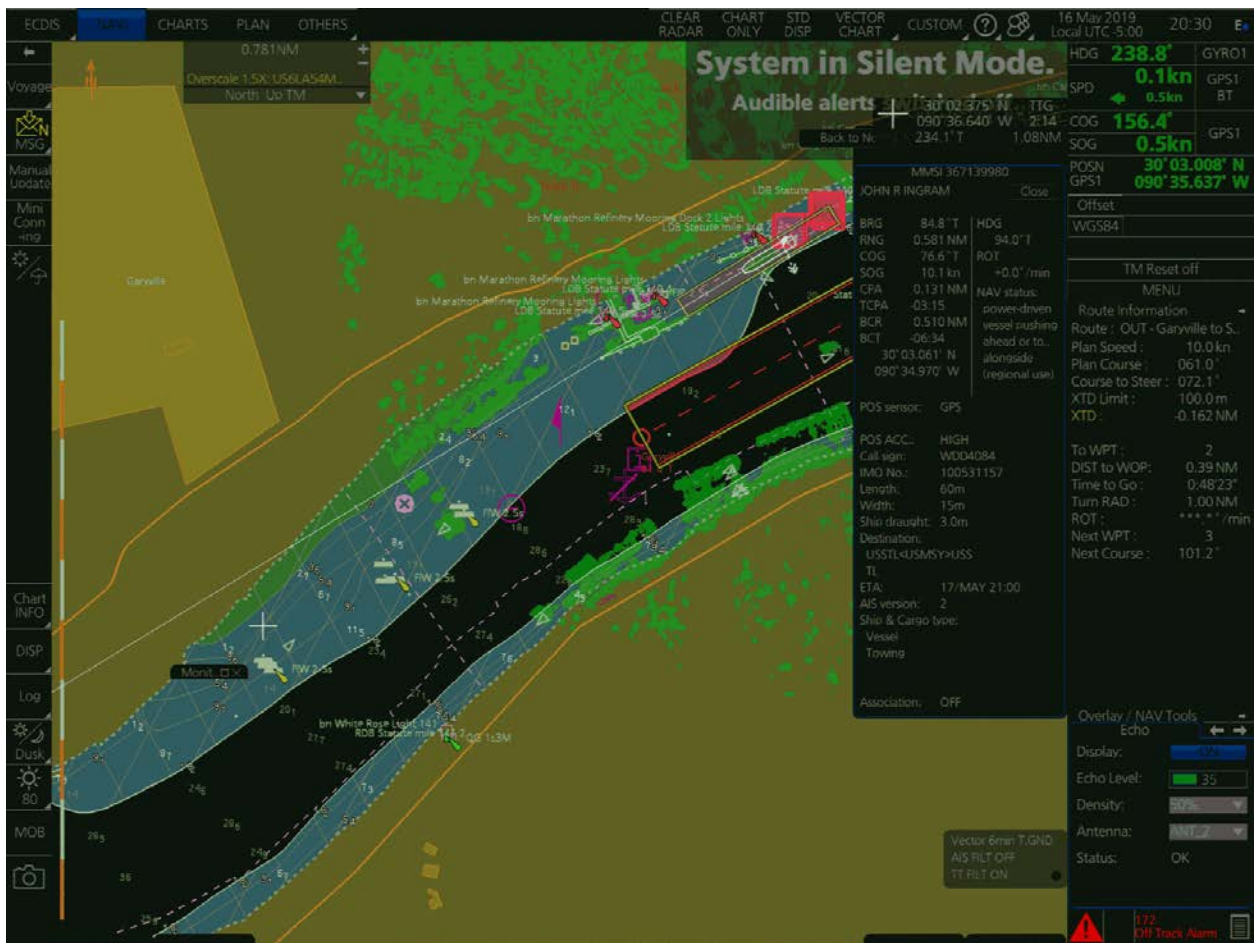


Figure 5. ECDIS display at 20:30:24 CDT.

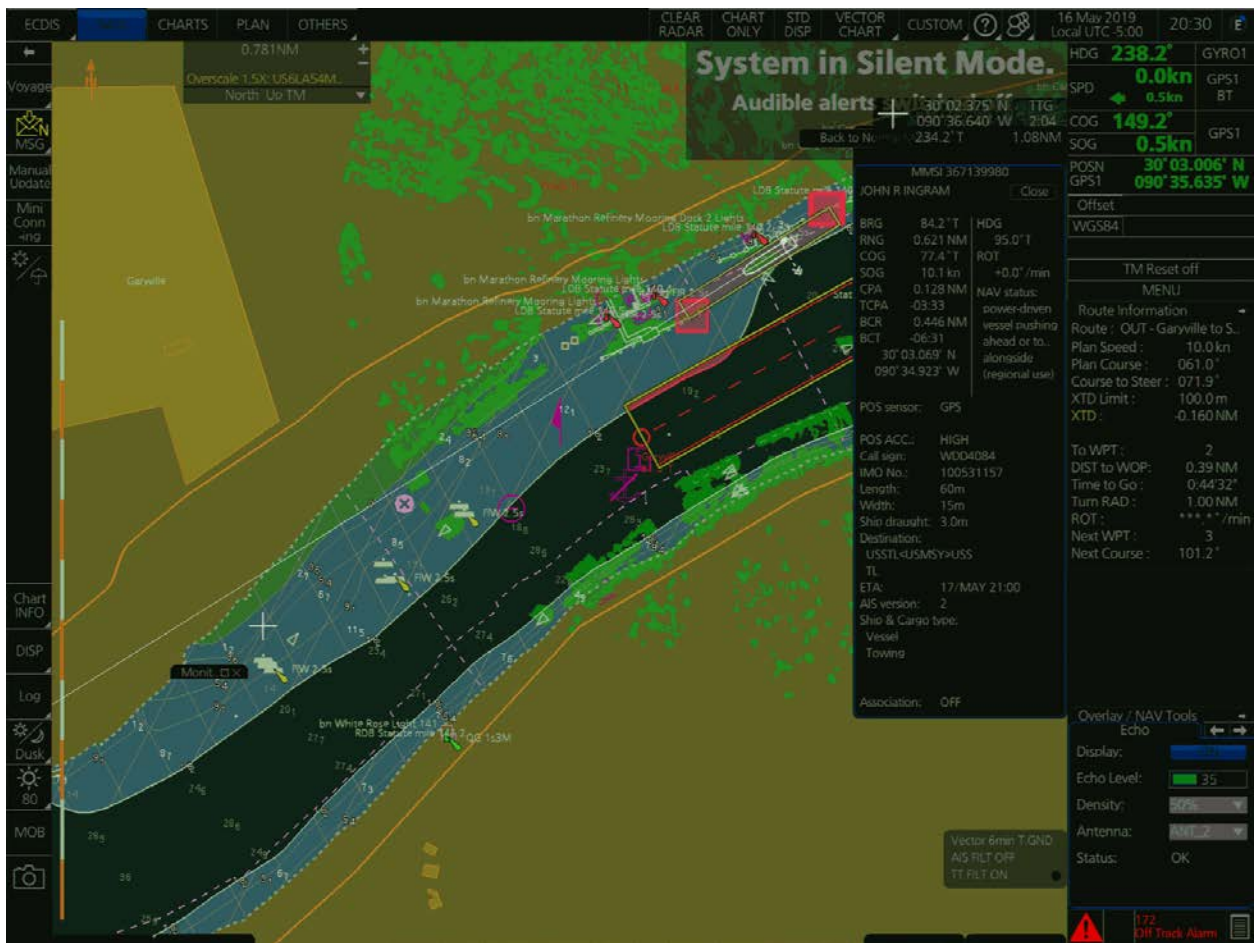


Figure 6. ECDIS display at 20:30:39 CDT.

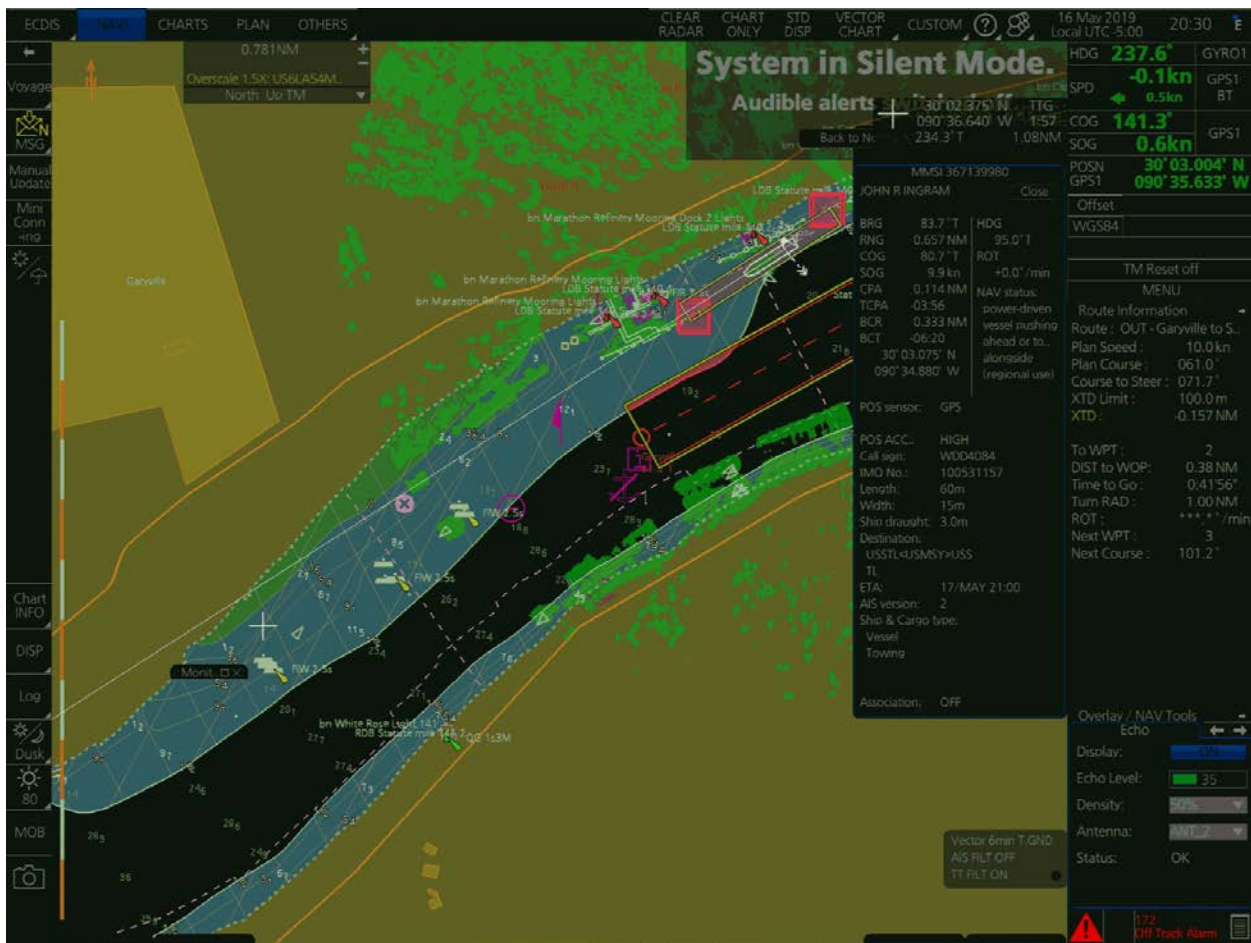


Figure 7. ECDIS display at 20:30:54 CDT.

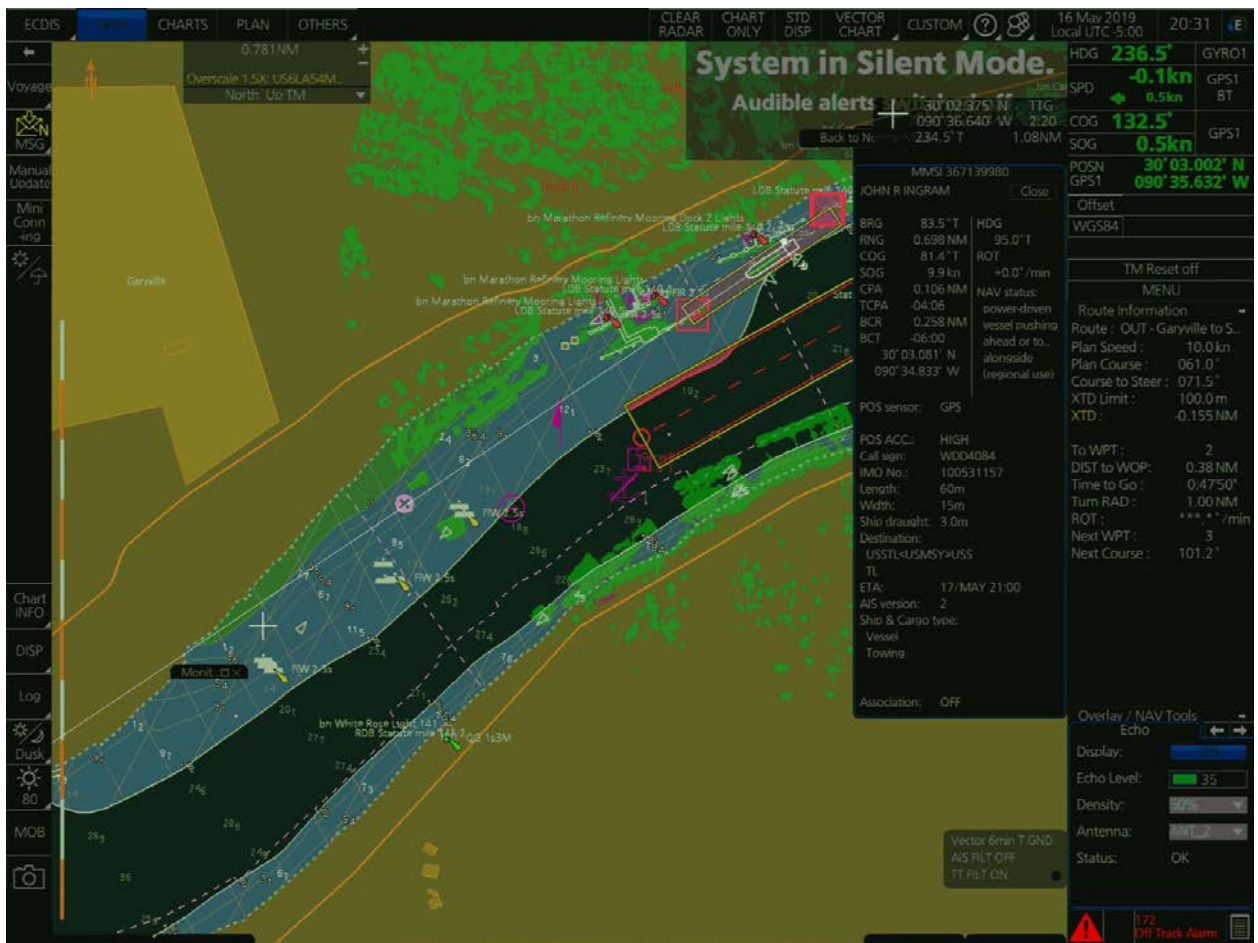


Figure 8. ECDIS display at 20:31:09 CDT.



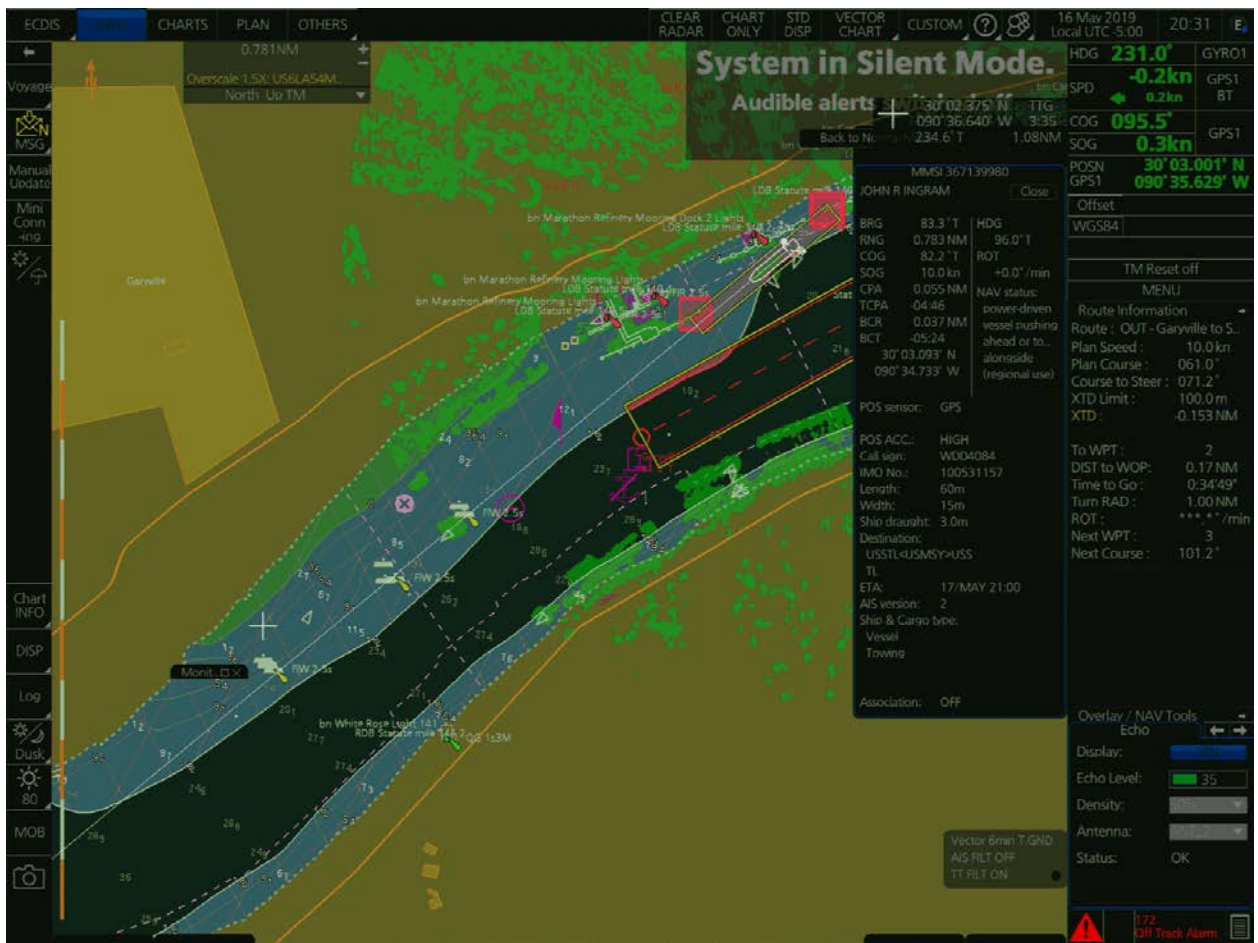


Figure 10. ECDIS display at 20:31:39 CDT.



Figure 11. ECDIS display at 20:31:54 CDT.

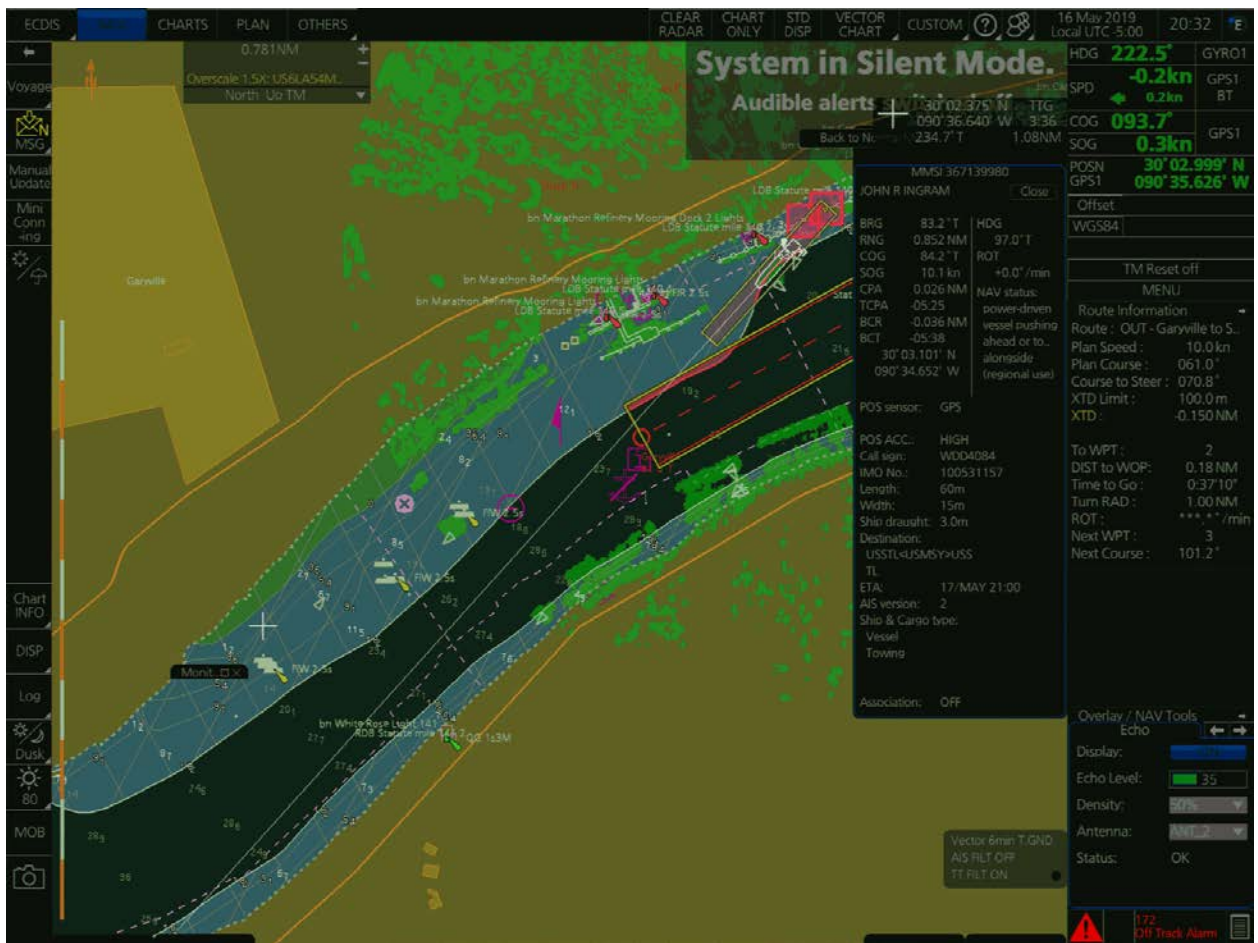


Figure 12. ECDIS display at 20:32:10 CDT.

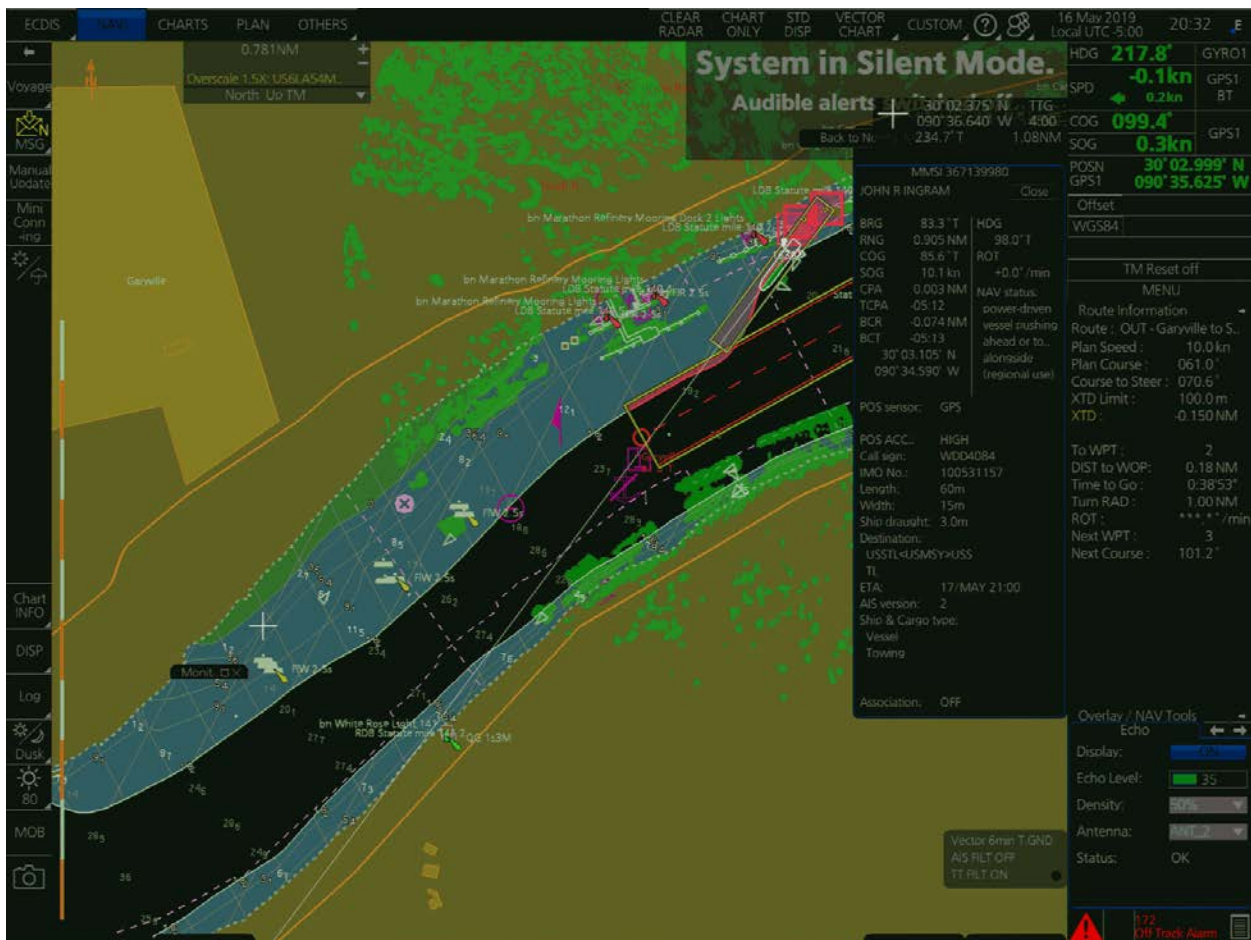


Figure 13. ECDIS display at 20:32:24 CDT.

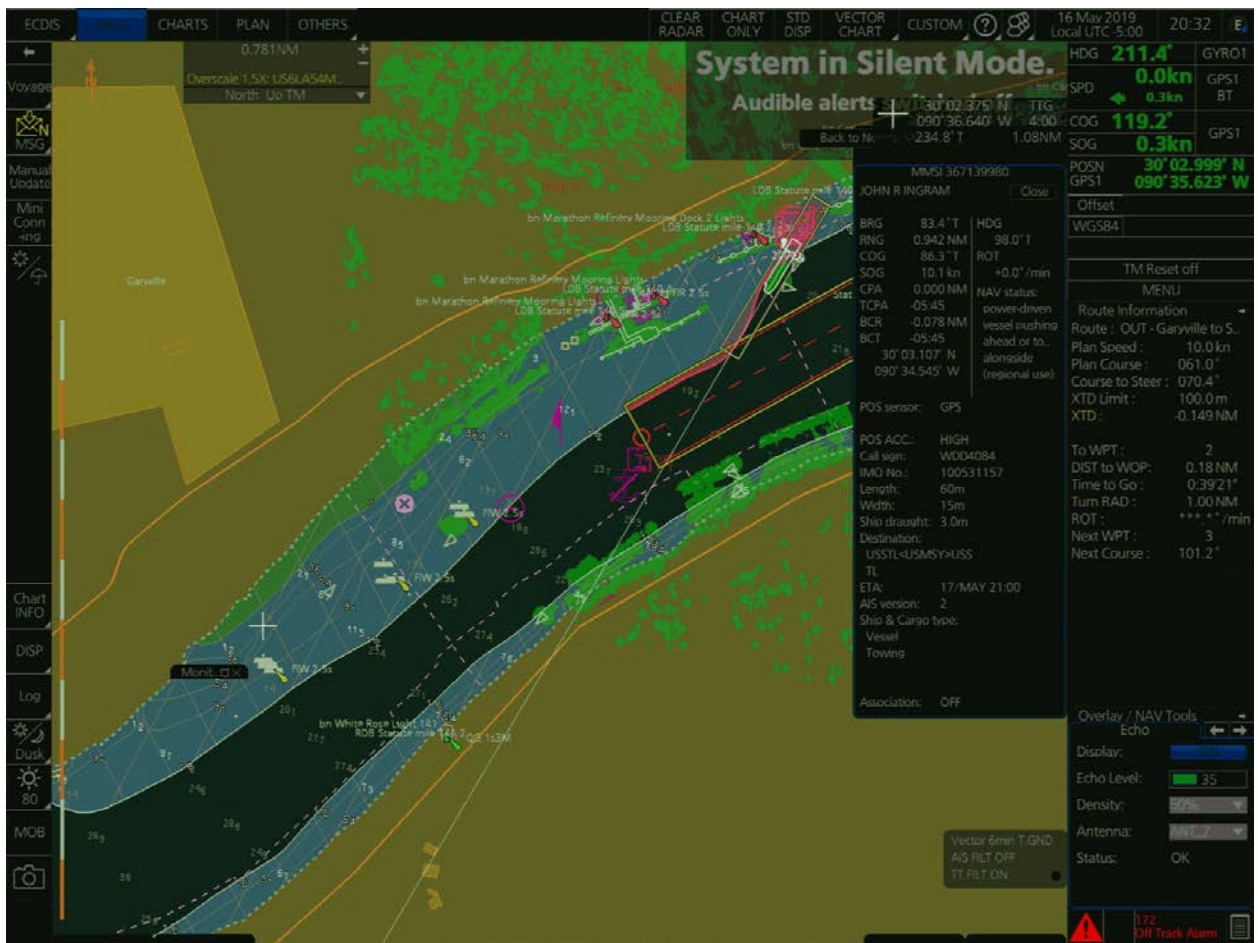


Figure 14. ECDIS display at 20:32:39 CDT.

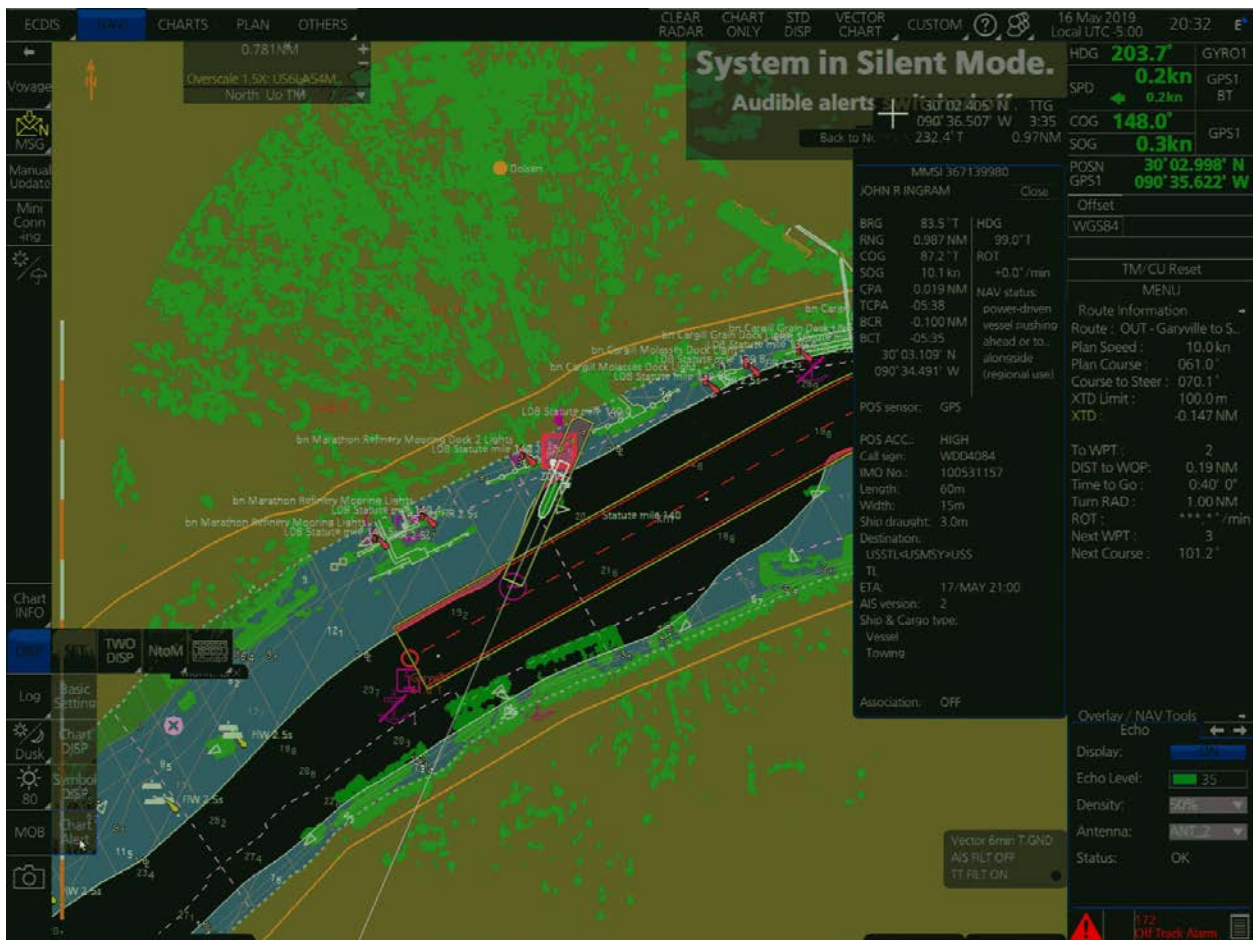


Figure 15. ECDIS display at 20:32:54 CDT.

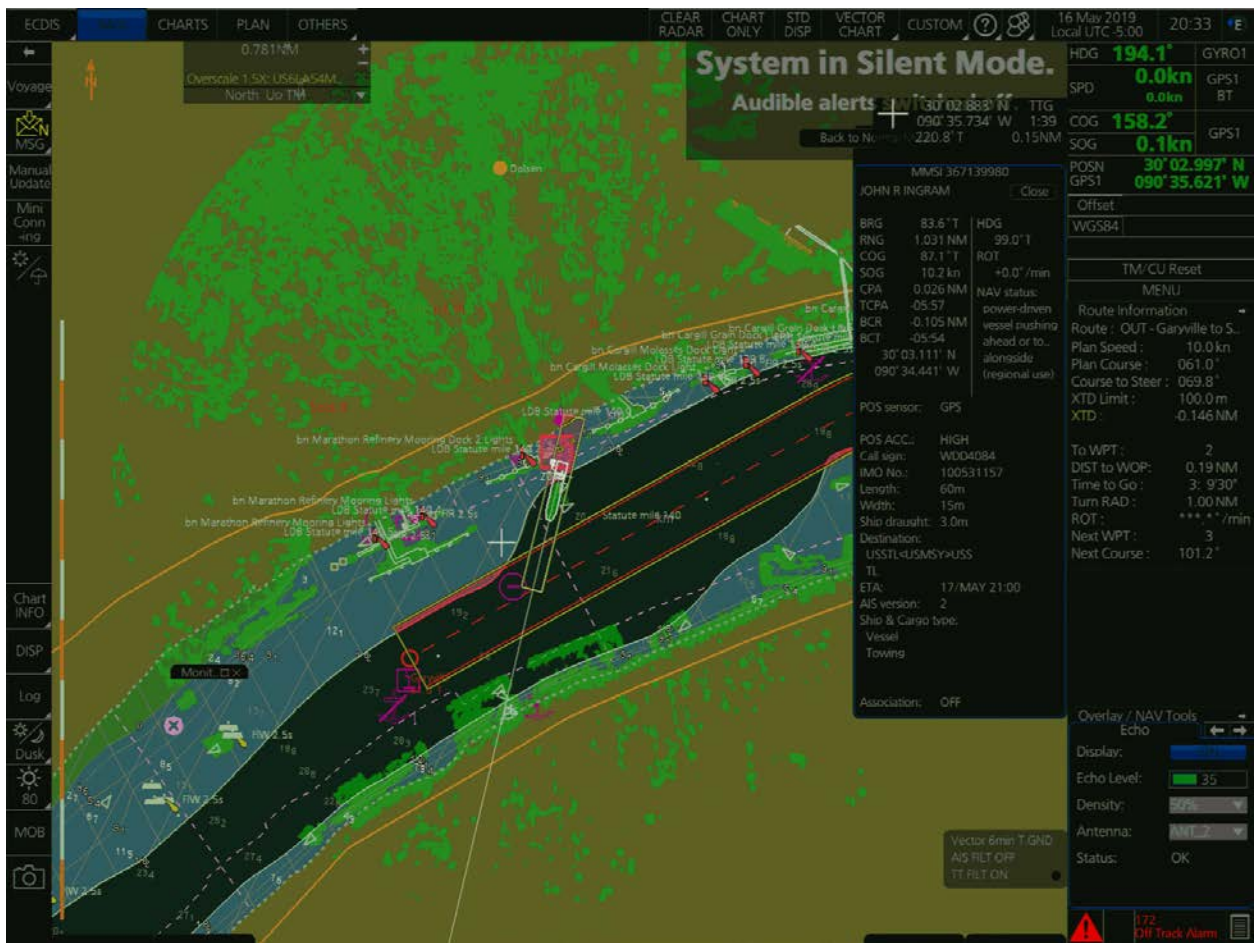


Figure 16. ECDIS display at 20:33:09 CDT.

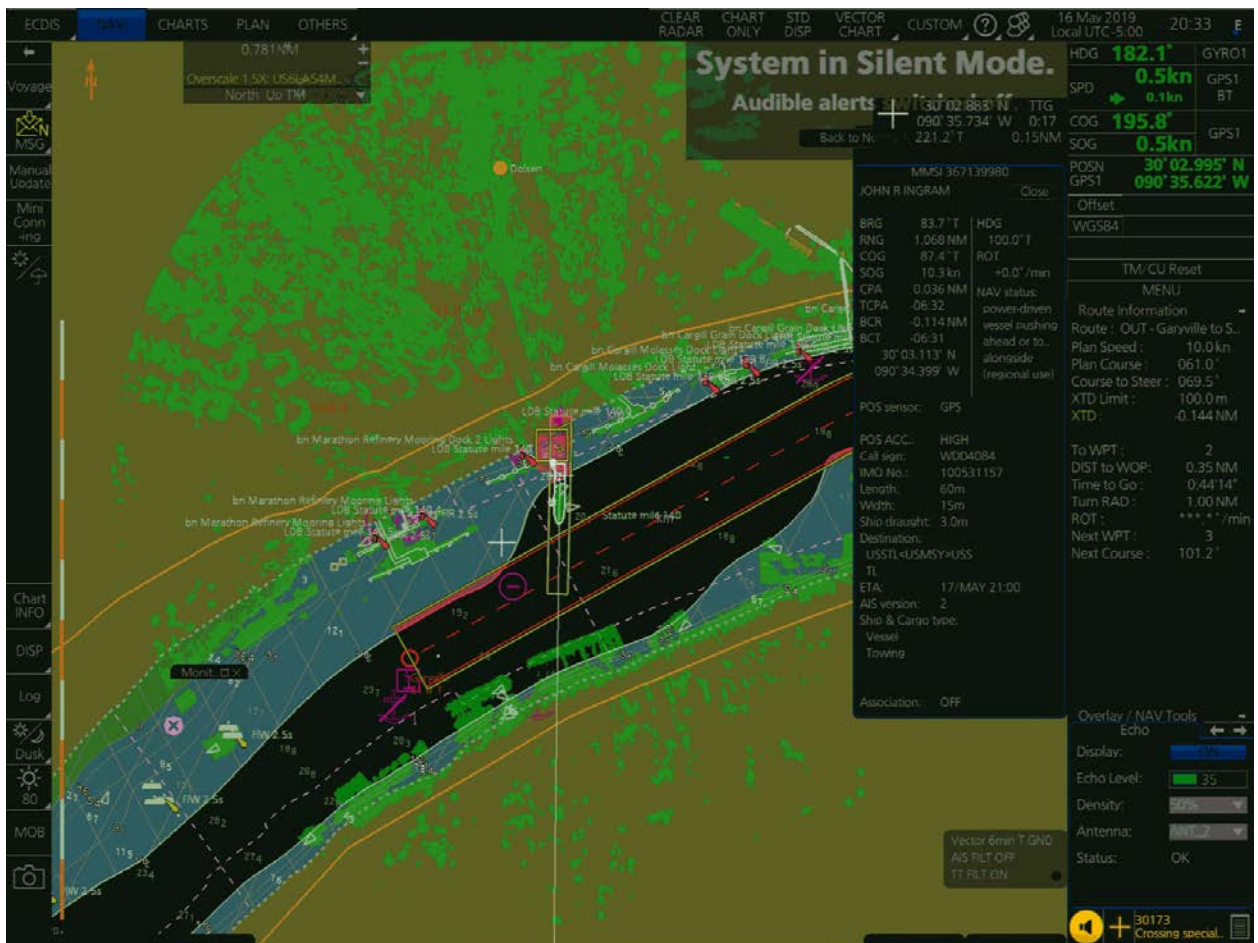


Figure 17. ECDIS display at 20:33:24 CDT.

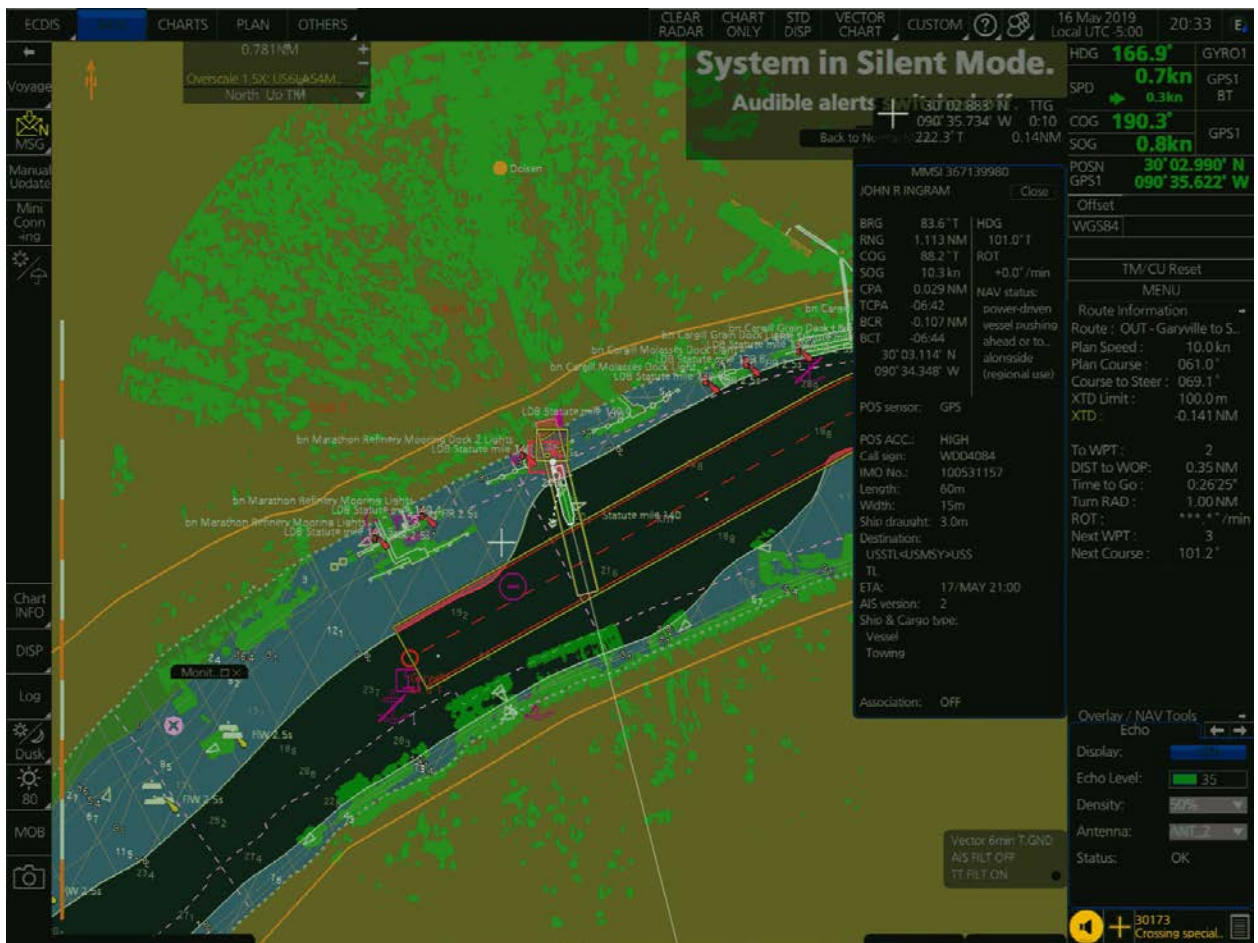


Figure 18. ECDIS display at 20:33:39 CDT.

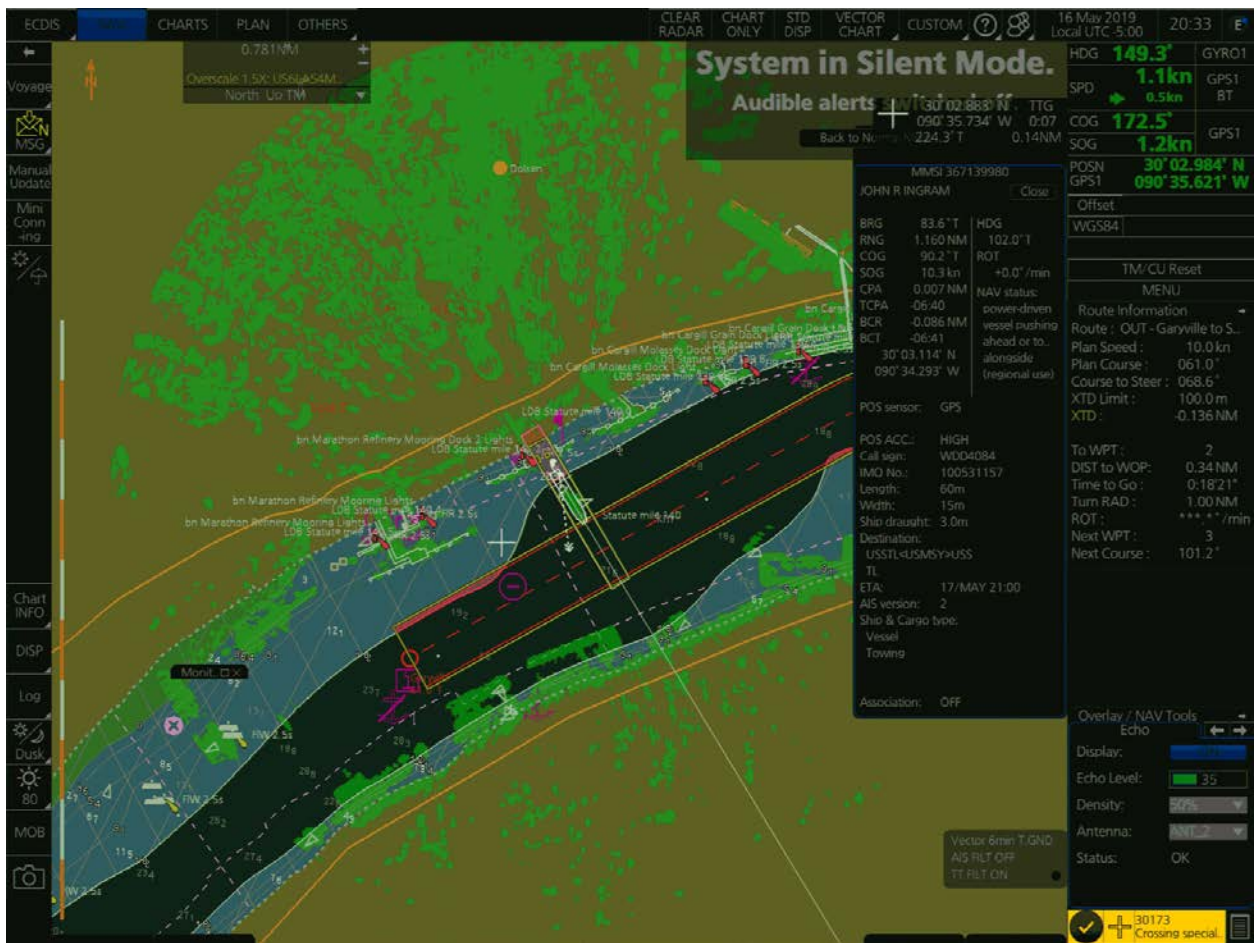


Figure 19. ECDIS display at 20:33:54 CDT.



Figure 20. ECDIS display at 20:34:09 CDT.



Figure 21. ECDIS display at 20:34:24 CDT.



Figure 22. ECDIS display at 20:34:39 CDT.



Figure 23. ECDIS display at 20:34:54 CDT.

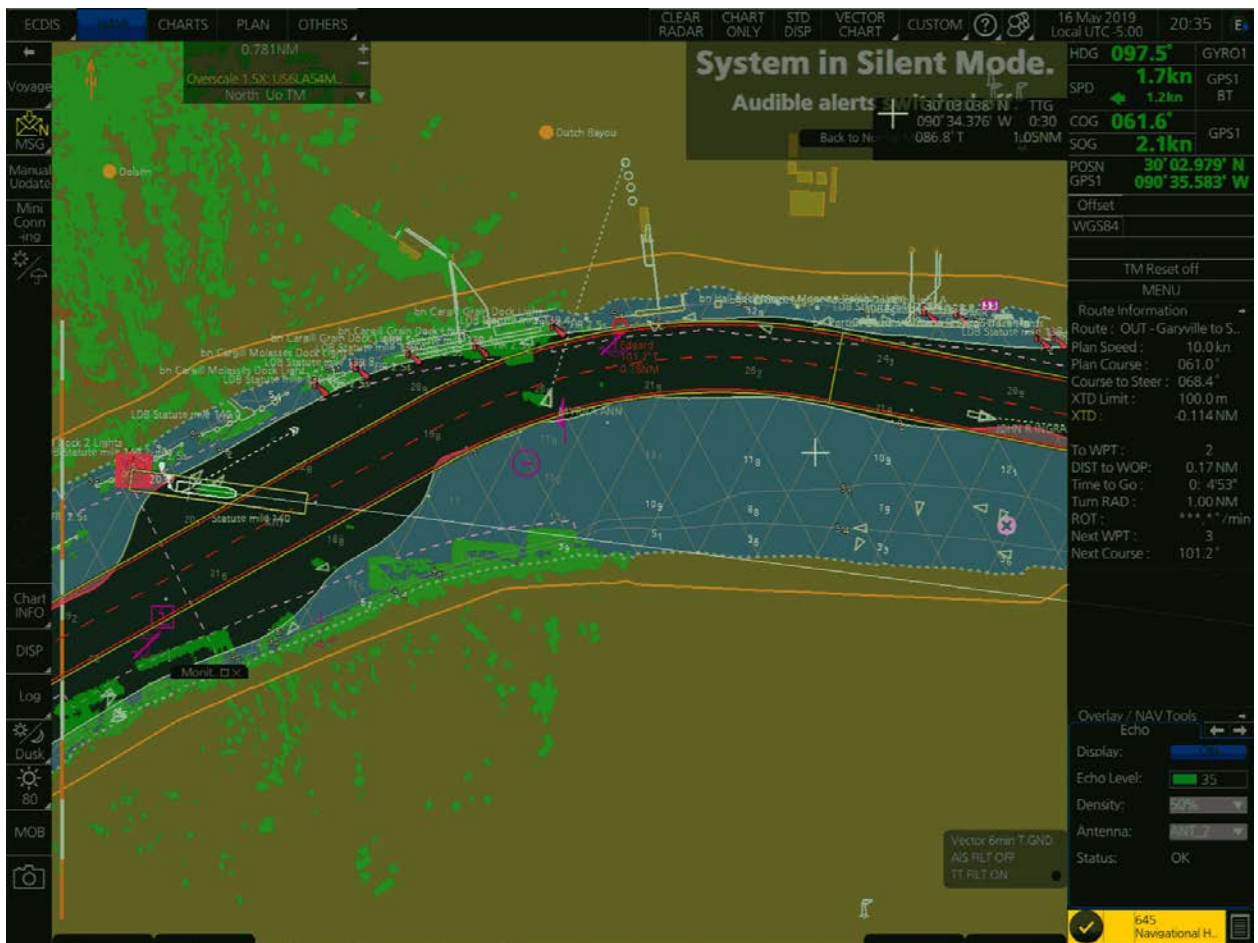


Figure 24. ECDIS display at 20:35:09 CDT.



Figure 25. ECDIS display at 20:35:24 CDT.



Figure 26. ECDIS display at 20:35:39 CDT.



Figure 27. ECDIS display at 20:35:55 CDT.



Figure 28. ECDIS display at 20:36:09 CDT.



Figure 29. ECDIS display at 20:36:24 CDT.



Figure 30. ECDIS display at 20:36:39 CDT.



Figure 31. ECDIS display at 20:36:54 CDT.

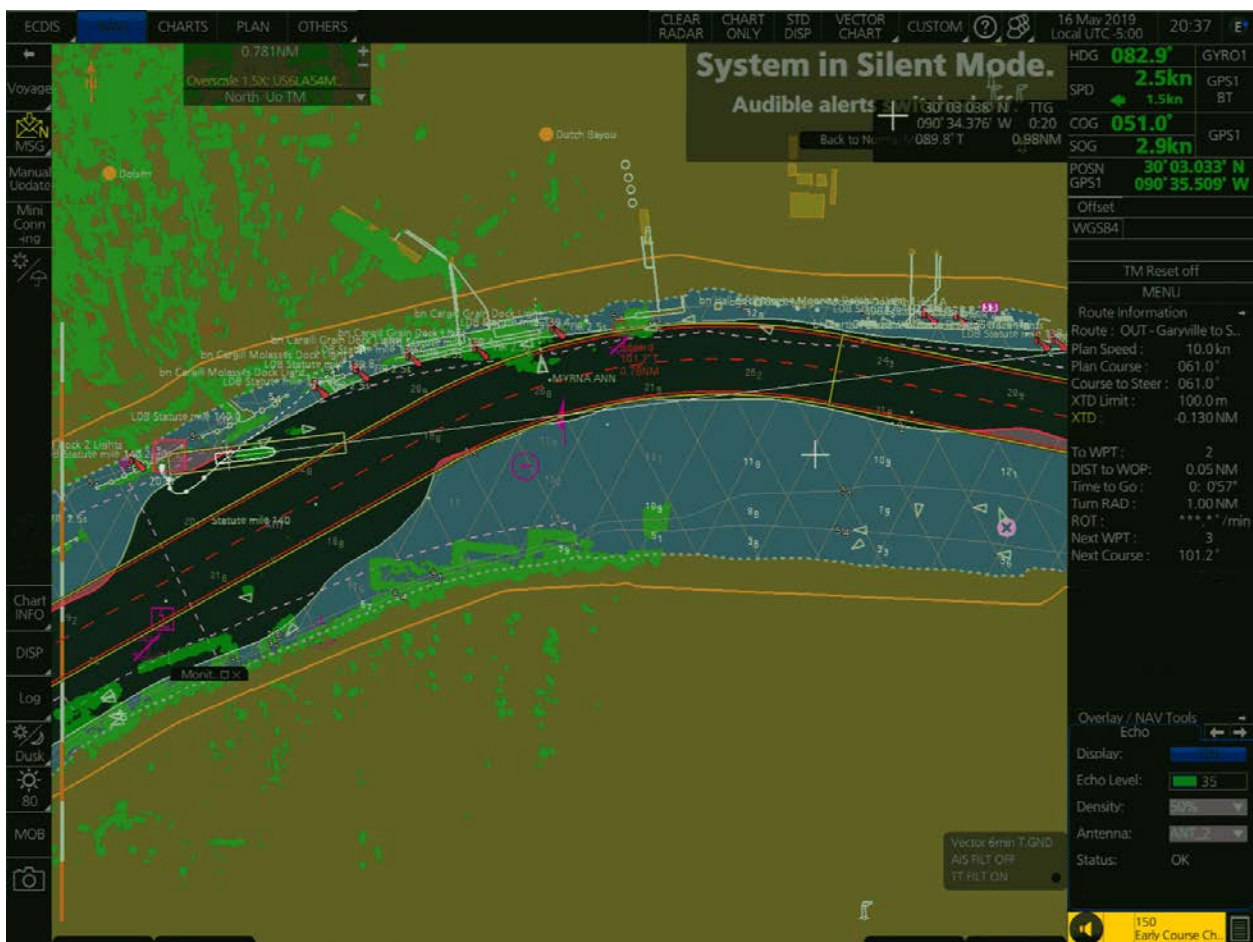




Figure 33. ECDIS display at 20:37:24 CDT.



Figure 34. ECDIS display at 20:37:40 CDT.



Figure 35. ECDIS display at 20:37:55 CDT.



Figure 36. ECDIS display at 20:38:10 CDT.



Figure 37. ECDIS display at 20:38:24 CDT.



Figure 38. ECDIS display at 20:38:39 CDT.



Figure 39. ECDIS display at 20:38:54 CDT.



Figure 40. ECDIS display at 20:39:09 CDT.



Figure 41. ECDIS display at 20:39:24 CDT.

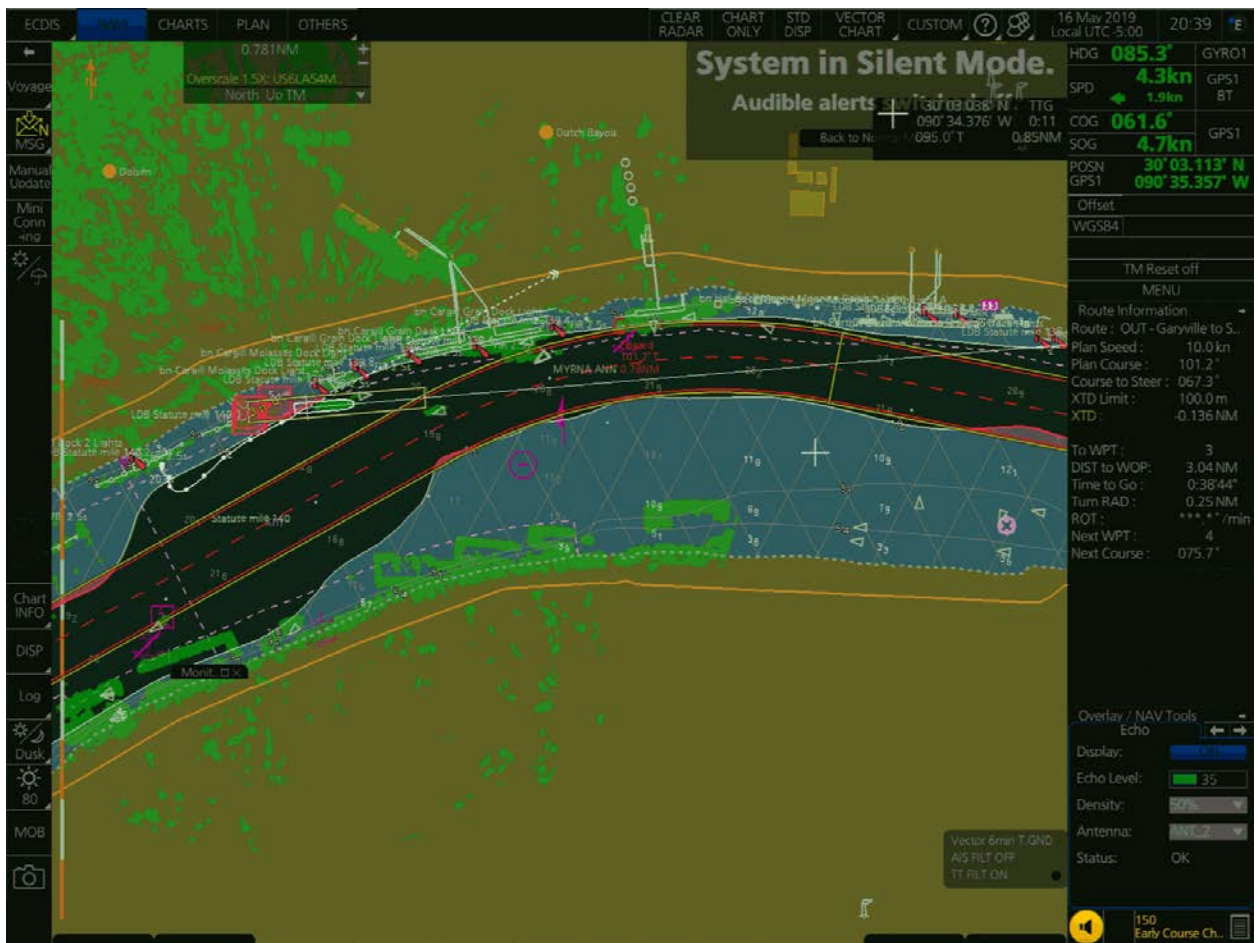


Figure 42. ECDIS display at 20:39:39 CDT.



Figure 43. ECDIS display at 20:39:54 CDT.

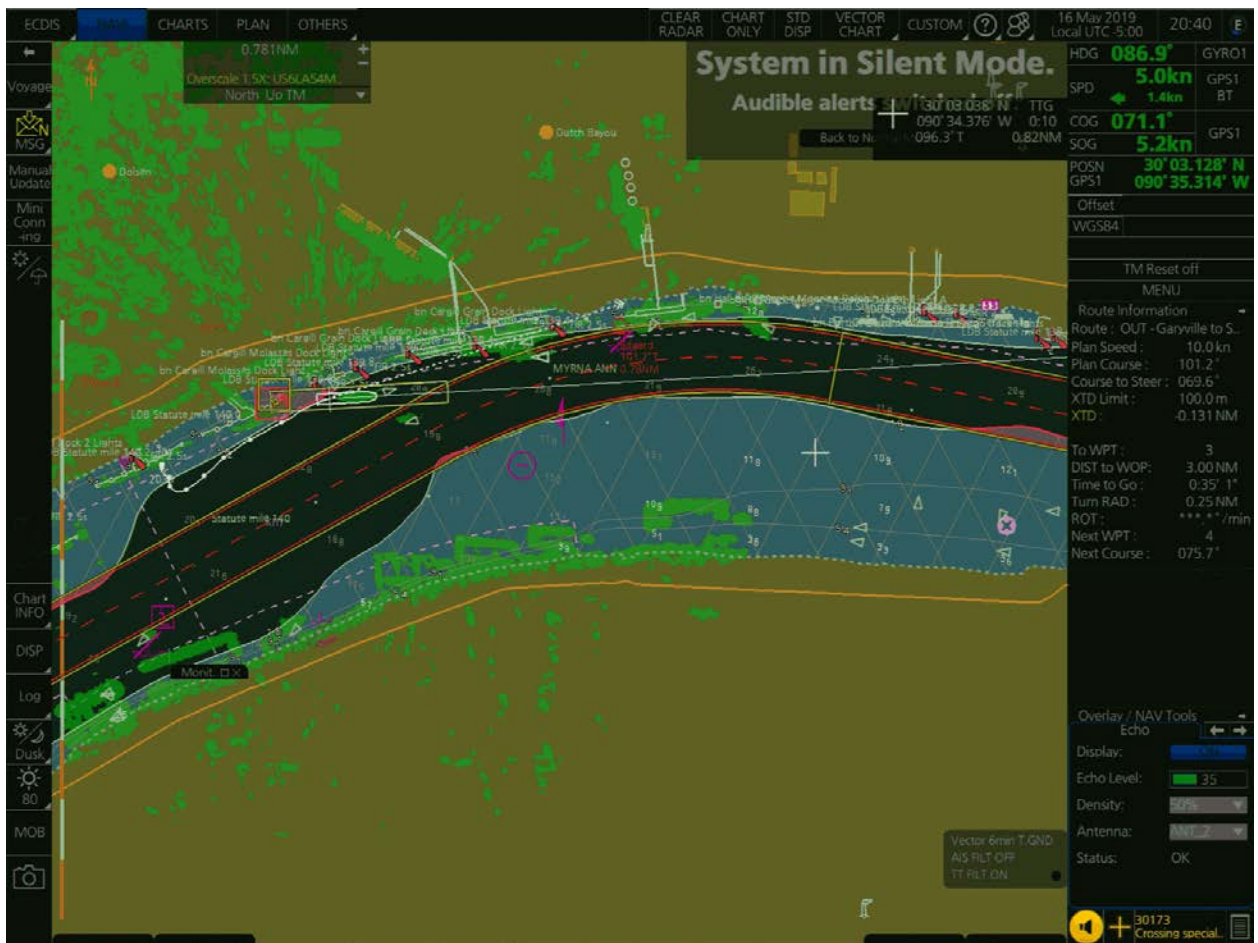


Figure 44. ECDIS display at 20:40:09 CDT.

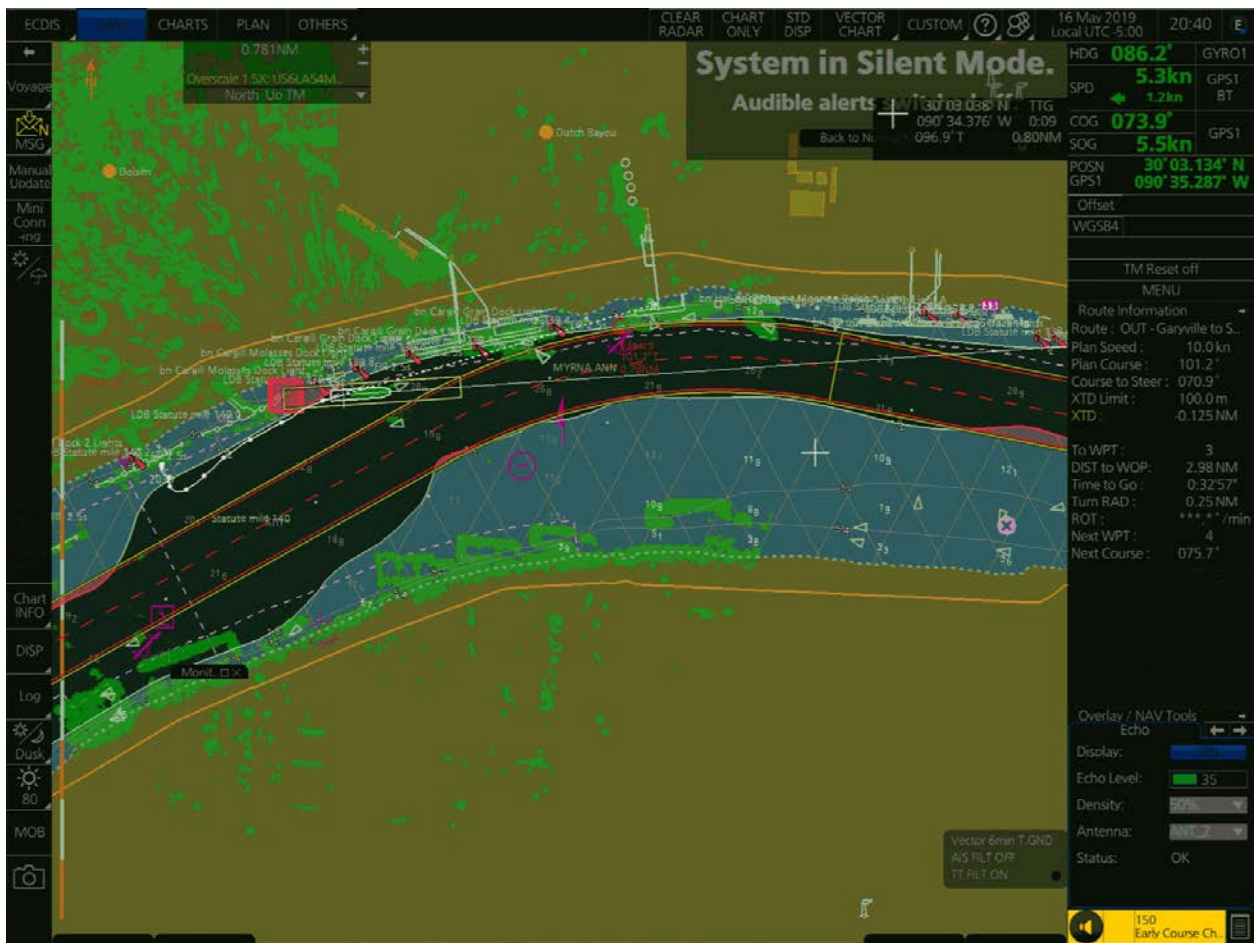


Figure 45. ECDIS display at 20:40:25 CDT.



Figure 46. ECDIS display at 20:40:39 CDT.



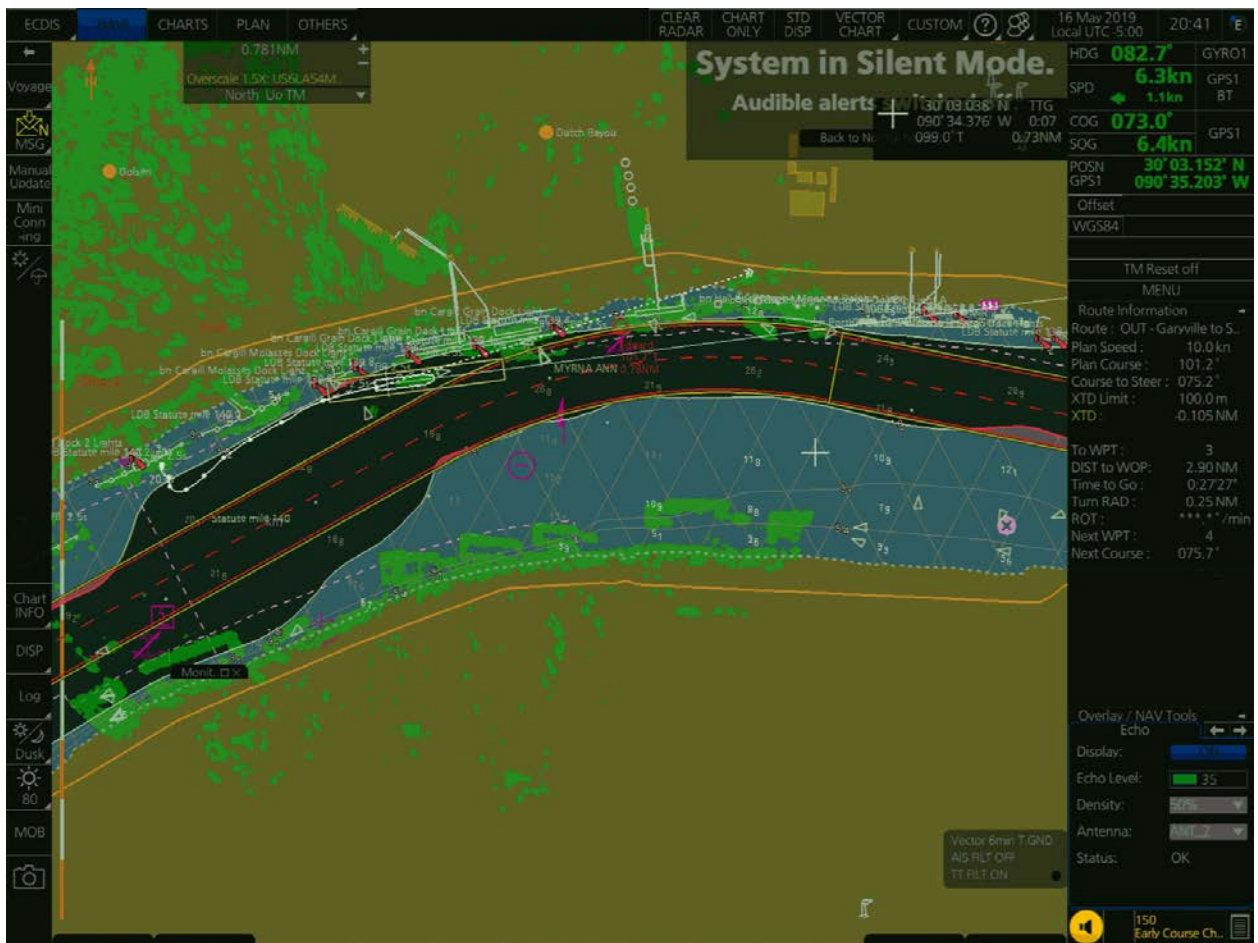


Figure 48. ECDIS display at 20:41:09 CDT.

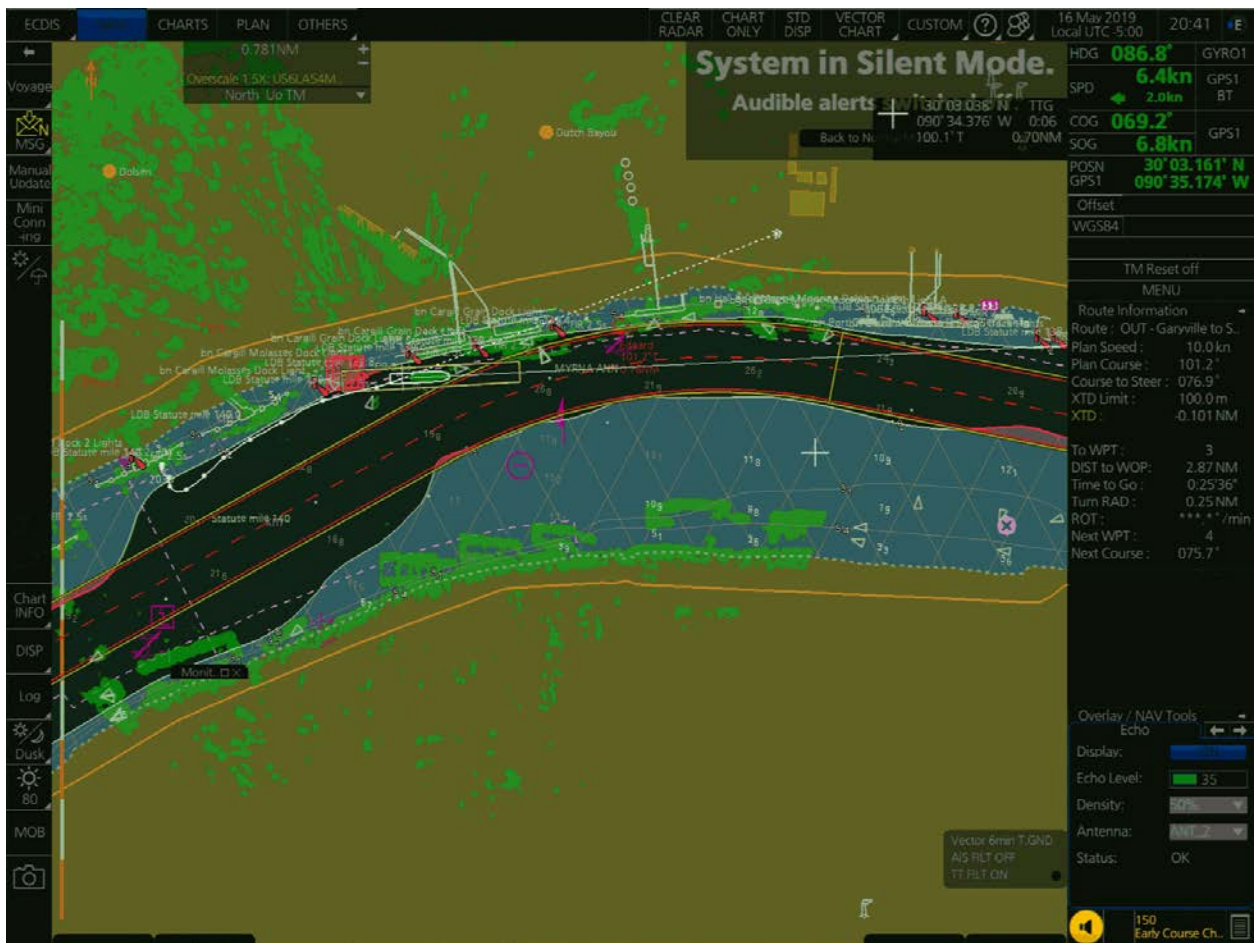


Figure 49. ECDIS display at 20:41:24 CDT.



Figure 50. ECDIS display at 20:41:39 CDT.



Figure 51. ECDIS display at 20:41:54 CDT.



Figure 52. ECDIS display at 20:42:09 CDT.

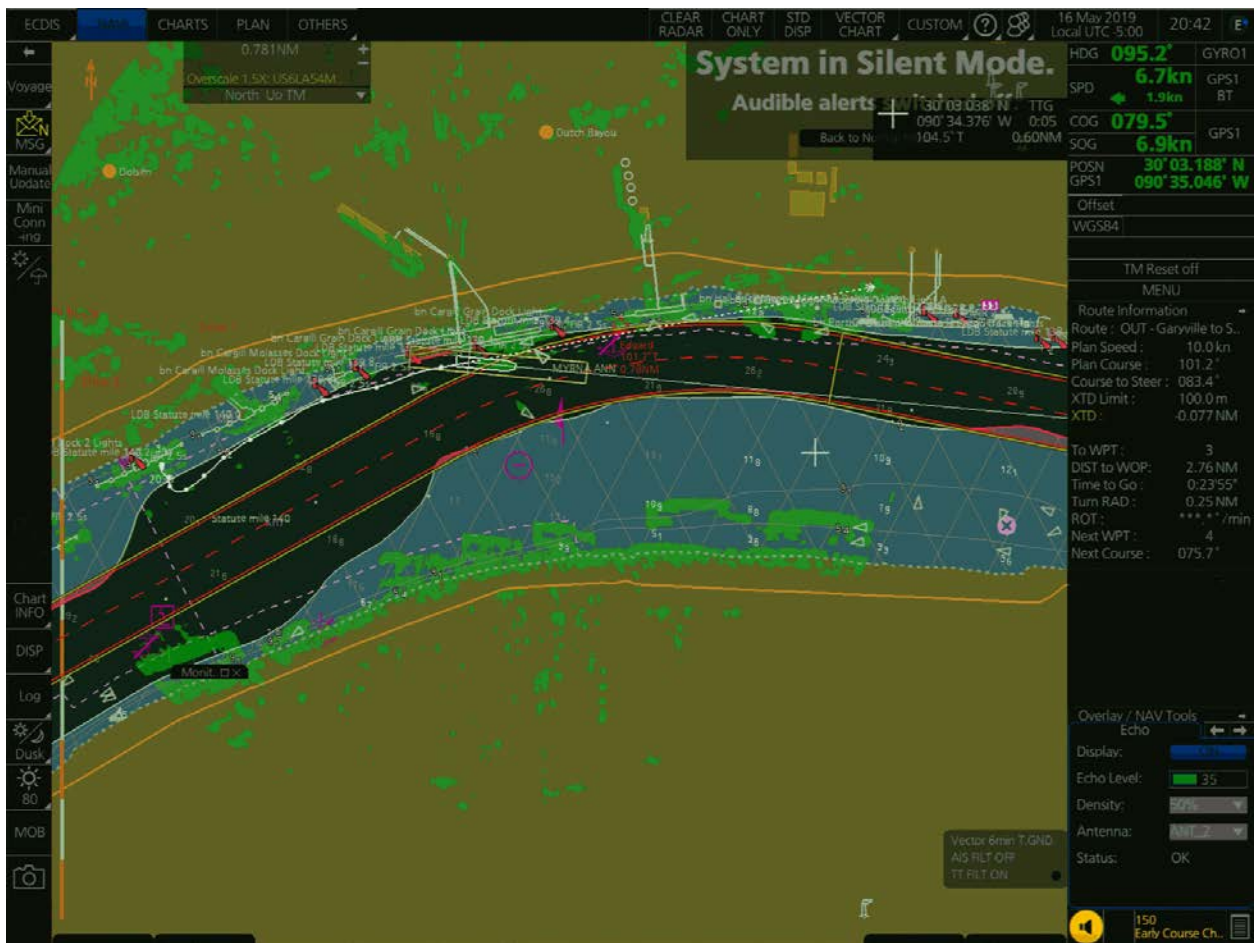


Figure 53. ECDIS display at 20:42:24 CDT.



Figure 54. ECDIS display at 20:42:39 CDT.



Figure 55. ECDIS display at 20:42:54 CDT.



Figure 56. ECDIS display at 20:43:09 CDT.



Figure 57. ECDIS display at 20:43:24 CDT.



Figure 58. ECDIS display at 20:43:39 CDT.

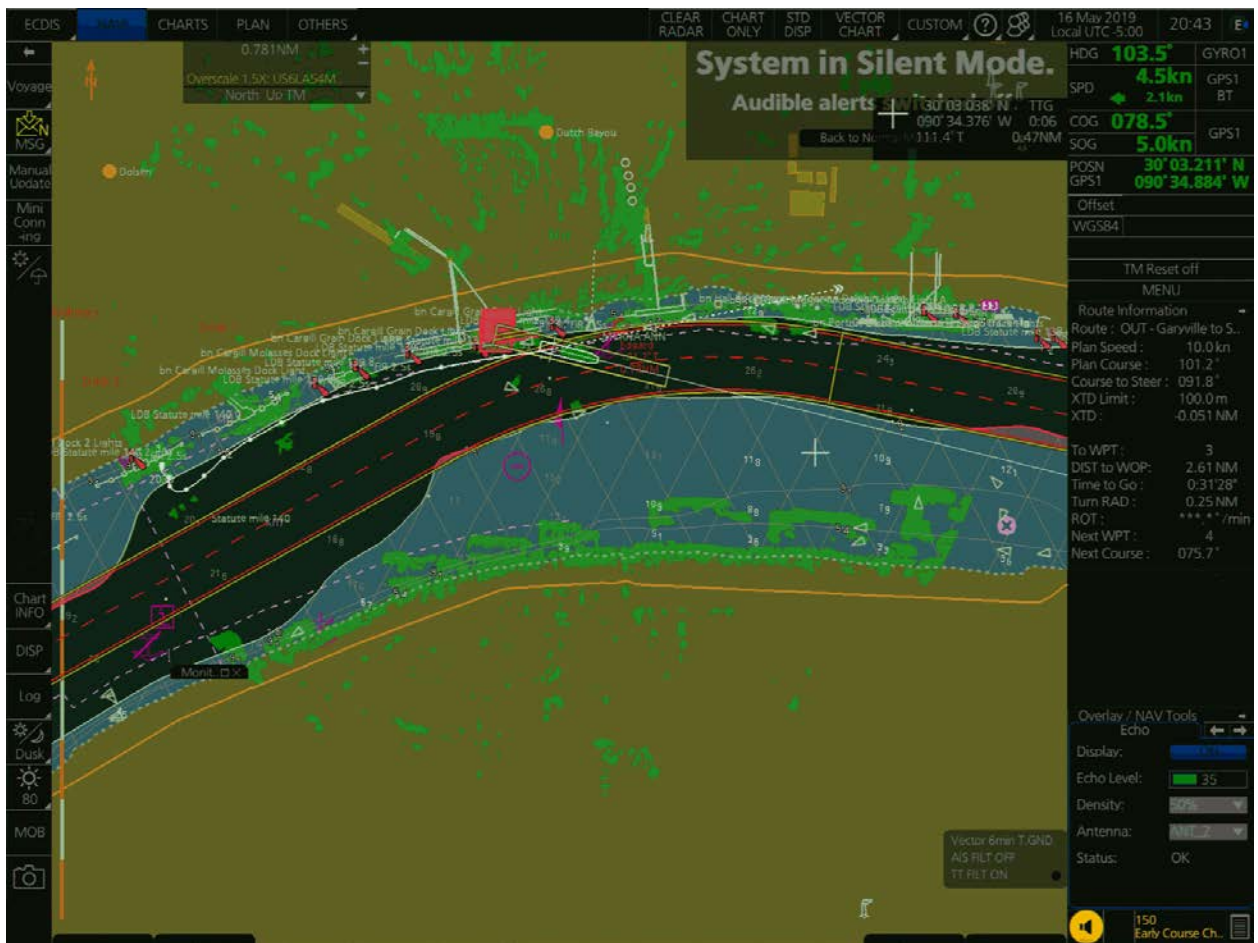


Figure 59. ECDIS display at 20:43:54 CDT.



Figure 60. ECDIS display at 20:44:09 CDT.



Figure 61. ECDIS display at 20:44:24 CDT.



Figure 62. ECDIS display at 20:44:39 CDT.



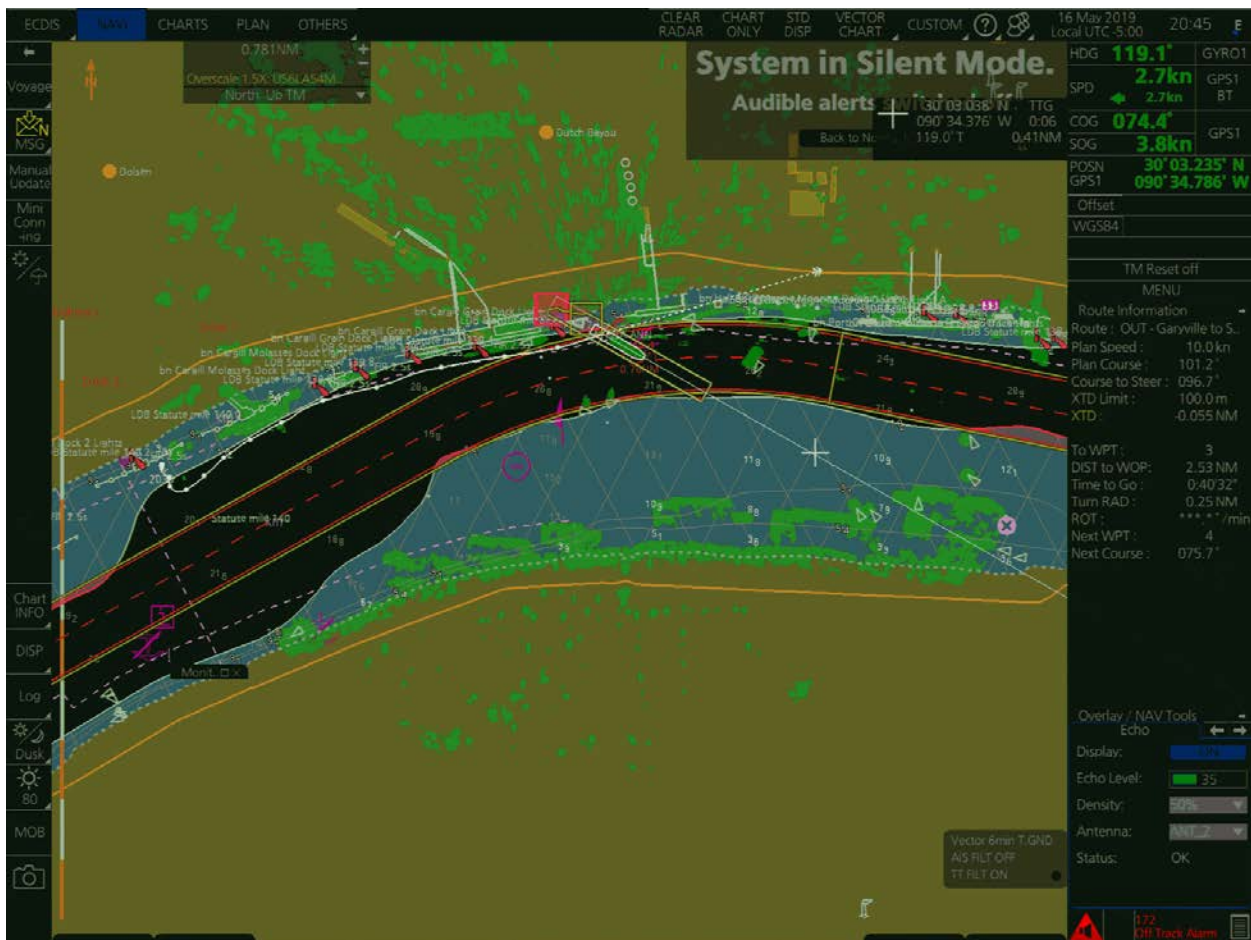


Figure 64. ECDIS display at 20:45:09 CDT.



Figure 65. ECDIS display at 20:45:24 CDT.



Figure 66. ECDIS display at 20:45:39 CDT.

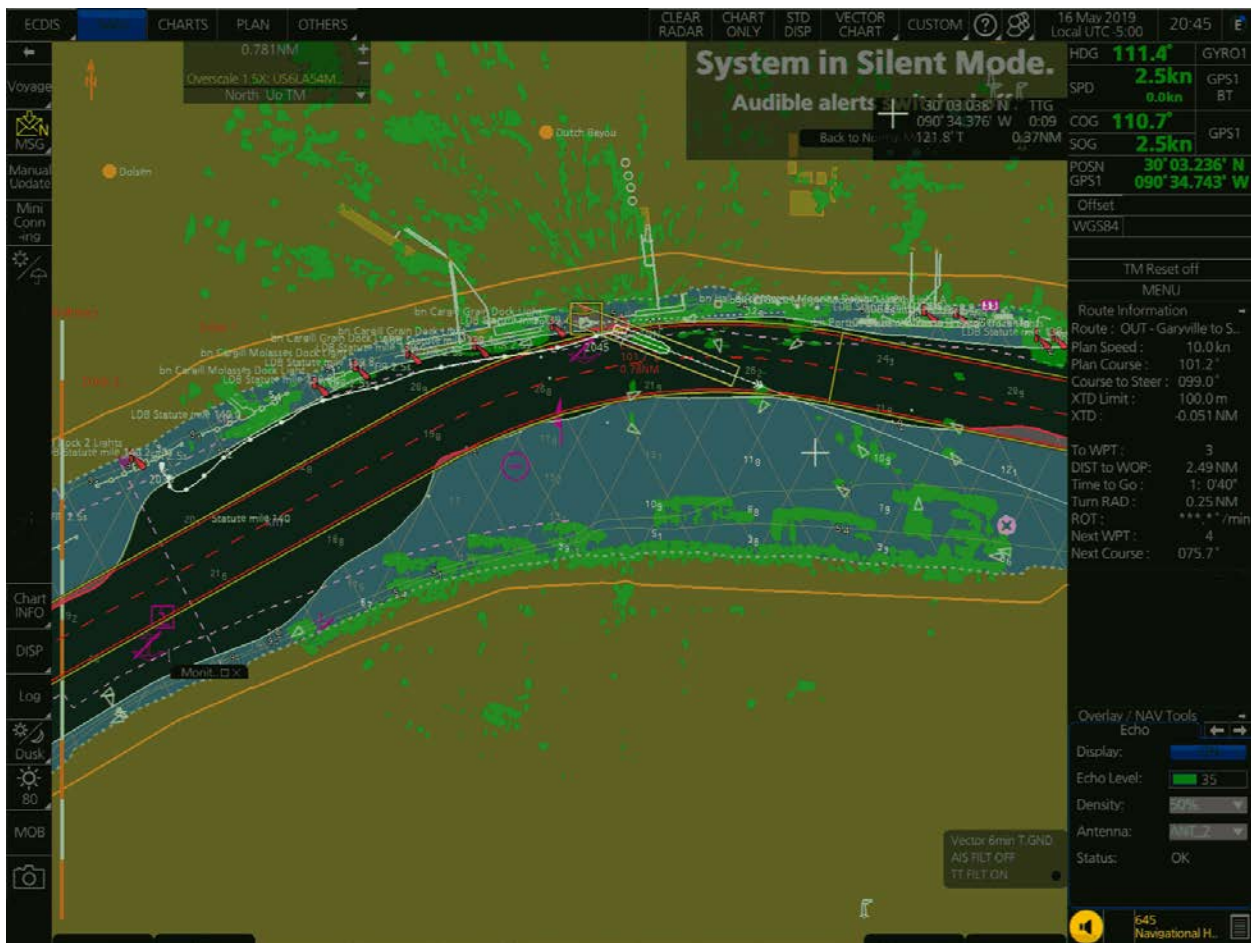


Figure 67. ECDIS display at 20:45:54 CDT.

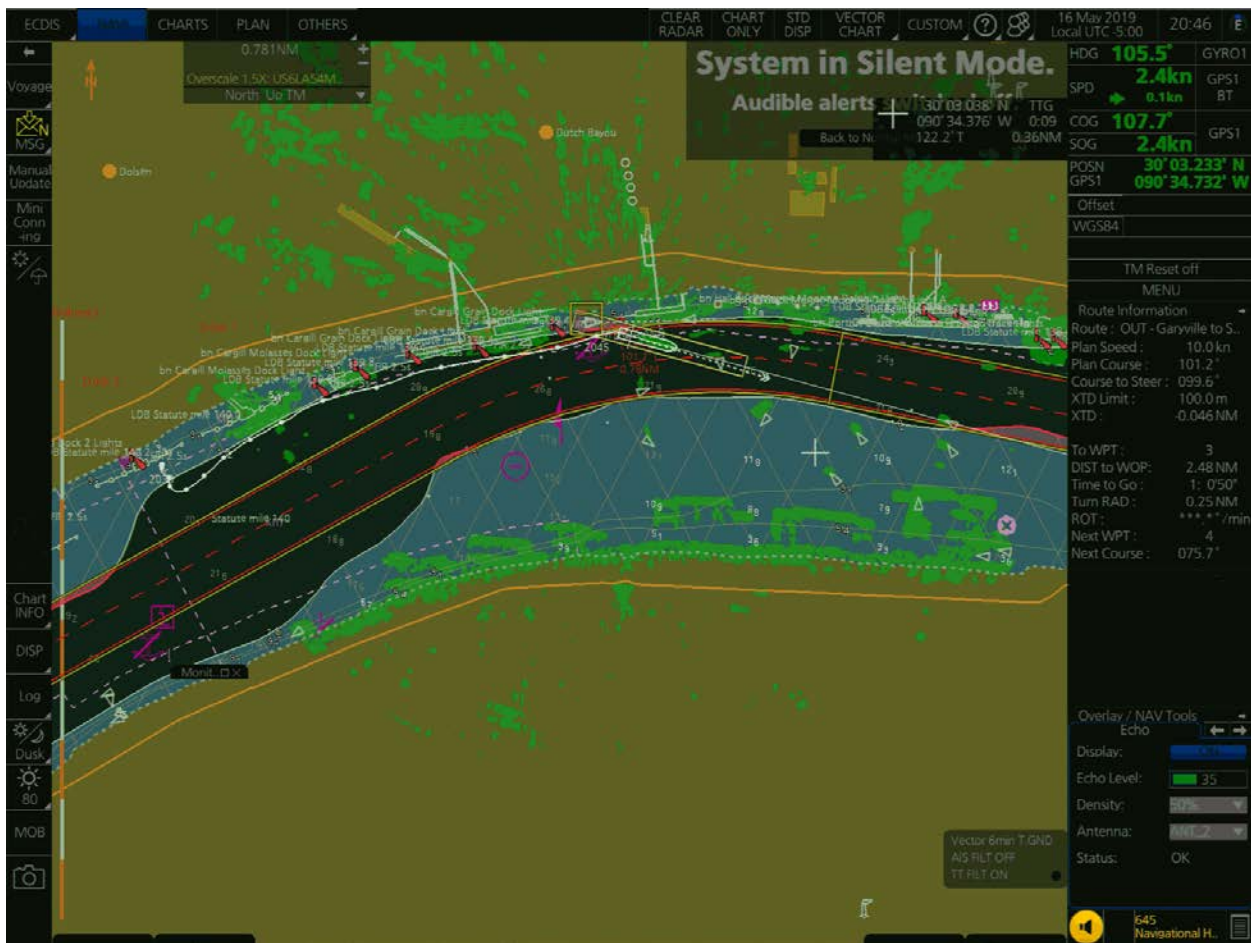


Figure 68. ECDIS display at 20:46:09 CDT.



Figure 69. ECDIS display at 20:46:24 CDT.



Figure 70. ECDIS display at 20:46:39 CDT.



Figure 71. ECDIS display at 20:46:54 CDT.



Figure 72. ECDIS display at 20:47:09 CDT.



Figure 73. ECDIS display at 20:47:24 CDT.



Figure 74. ECDIS display at 20:47:39 CDT.



Figure 75. ECDIS display at 20:47:54 CDT.

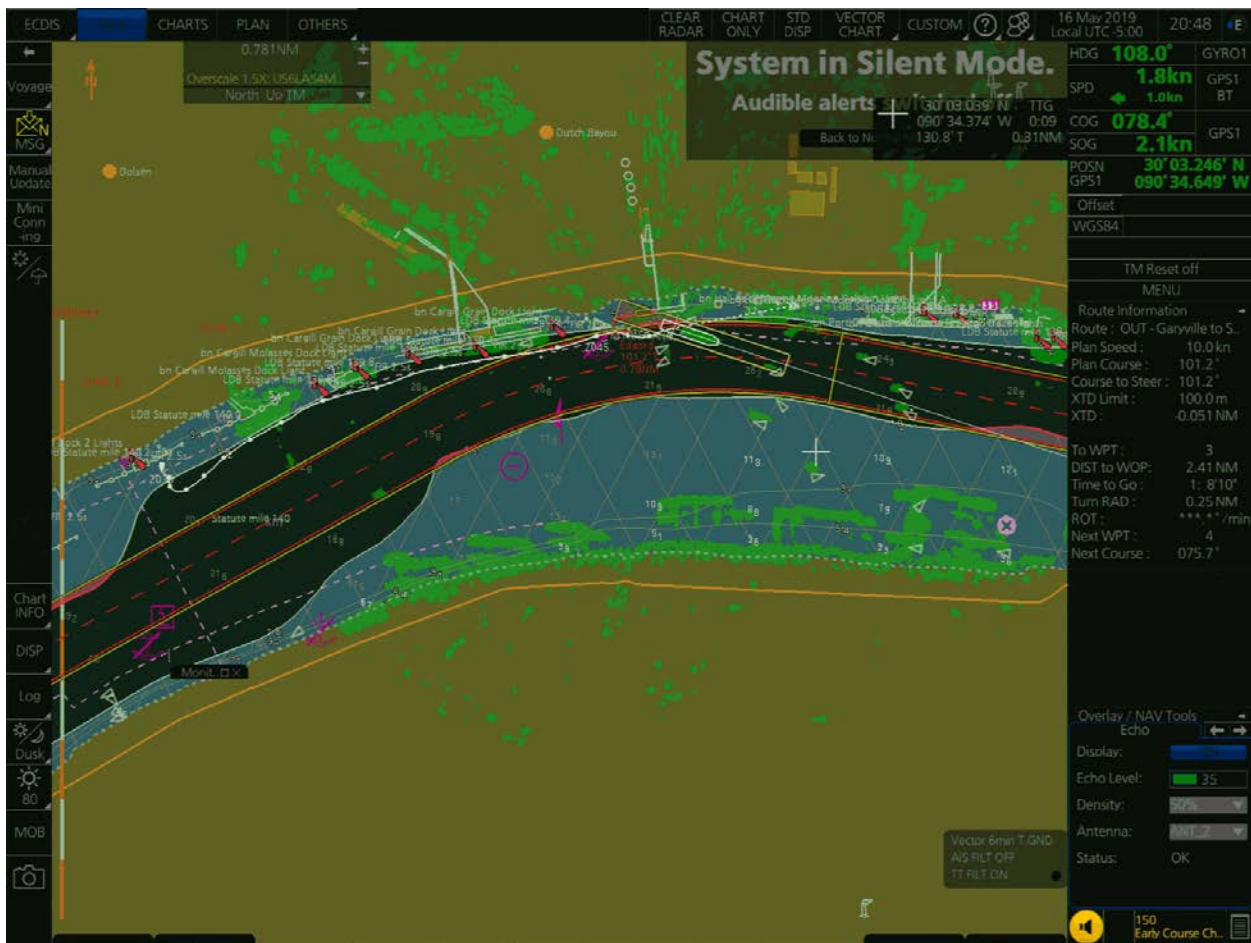


Figure 76. ECDIS display at 20:48:09 CDT.

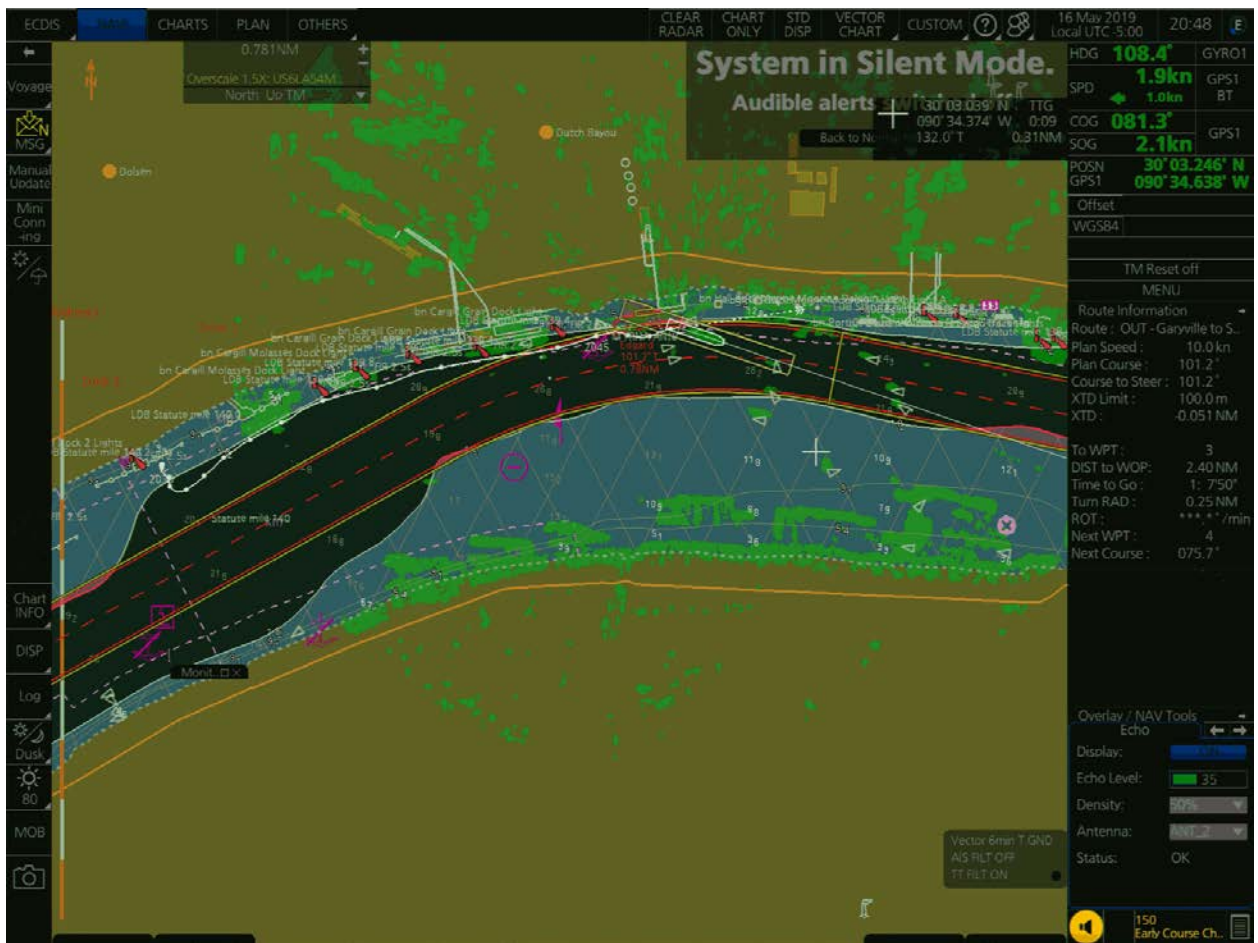


Figure 77. ECDIS display at 20:48:24 CDT.

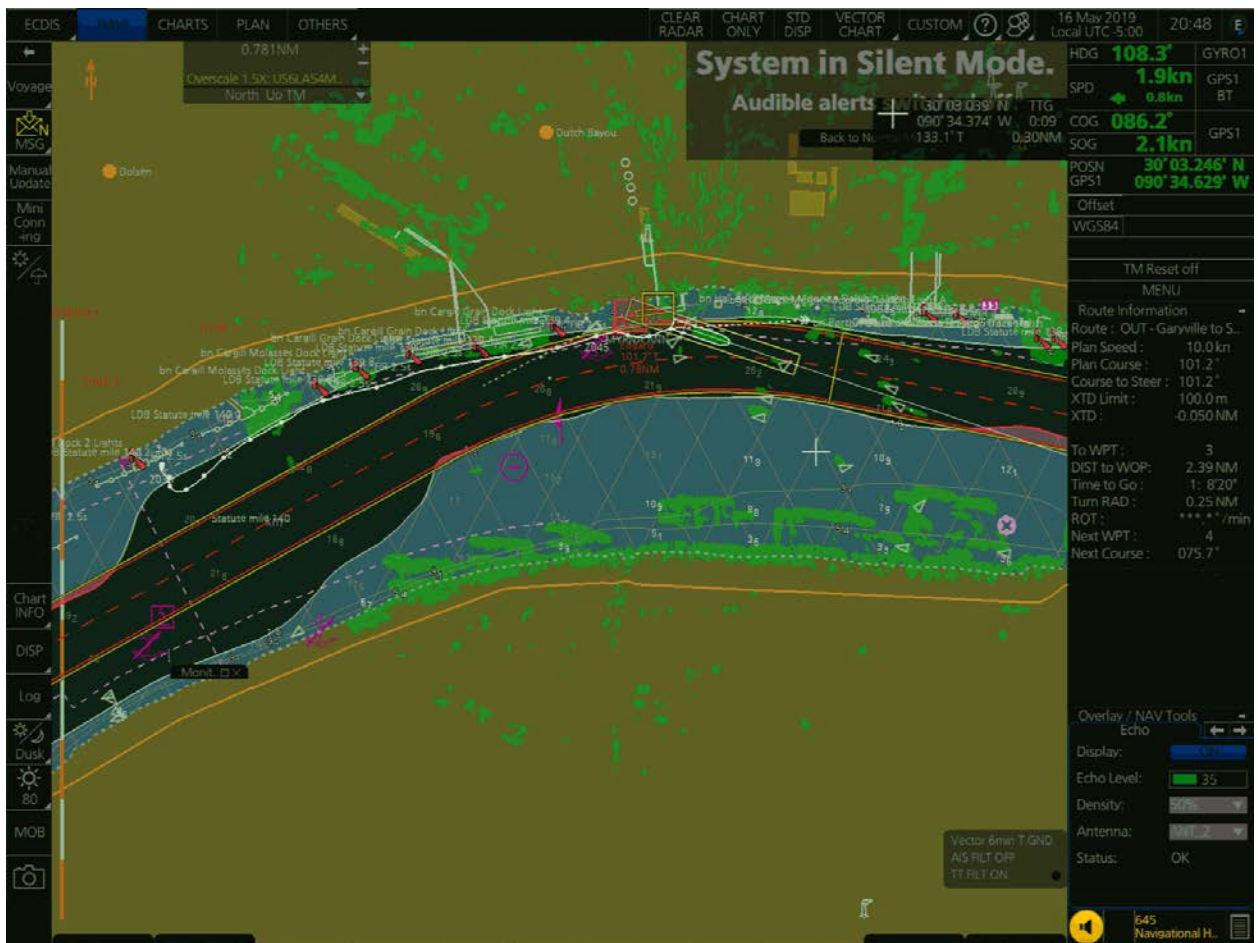


Figure 78. ECDIS display at 20:48:39 CDT.



Figure 79. ECDIS display at 20:48:54 CDT.

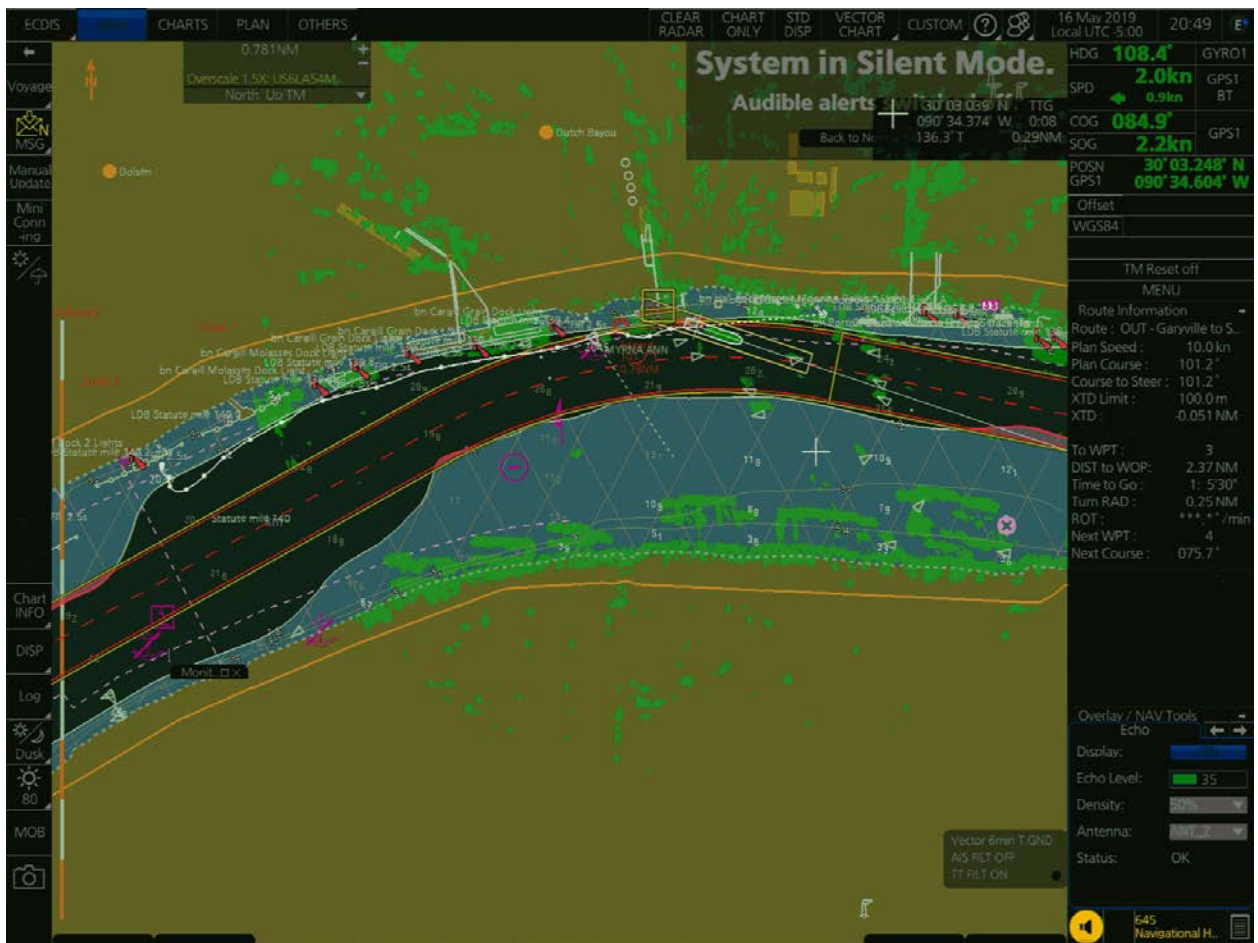


Figure 80. ECDIS display at 20:49:09 CDT.

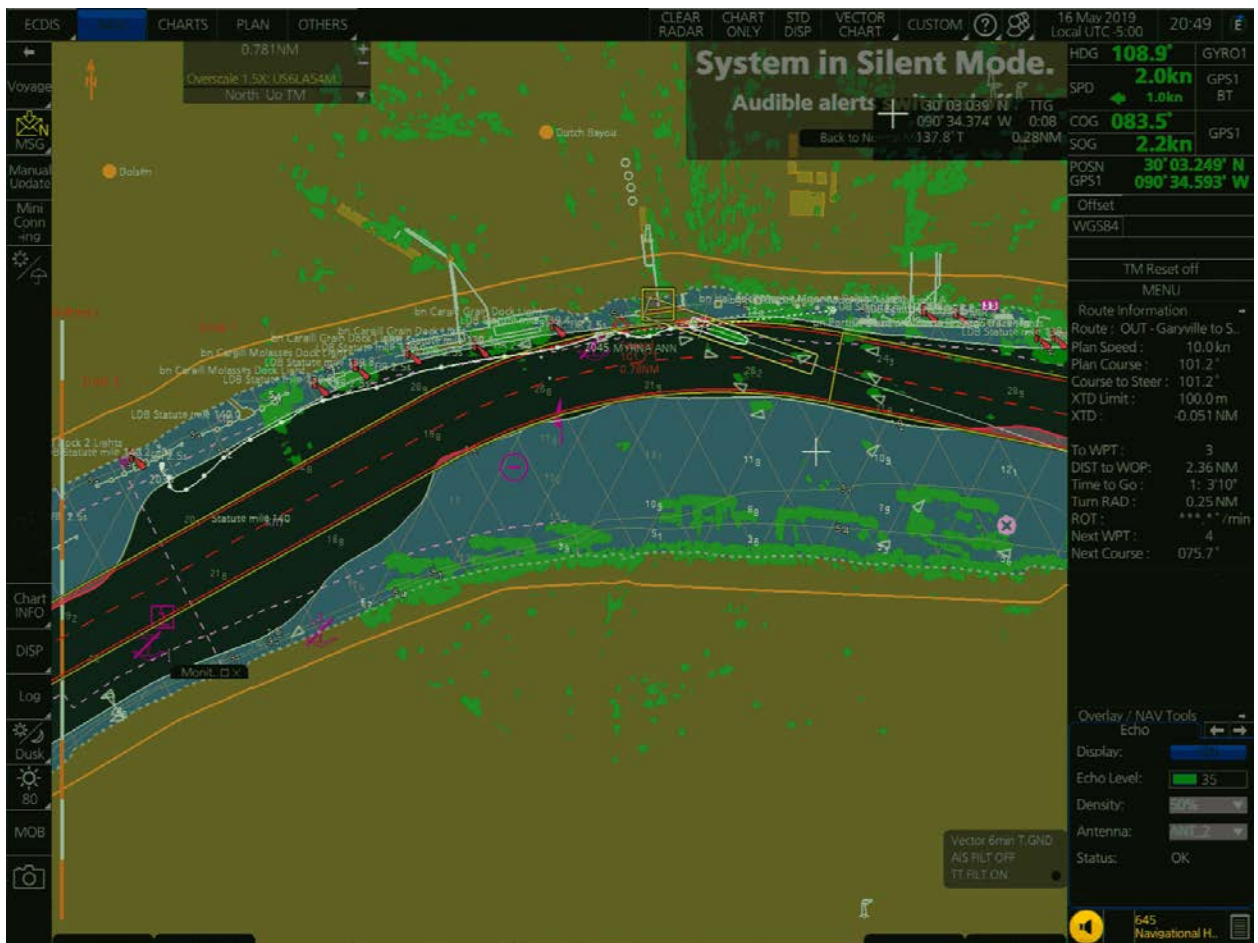


Figure 81. ECDIS display at 20:49:24 CDT.

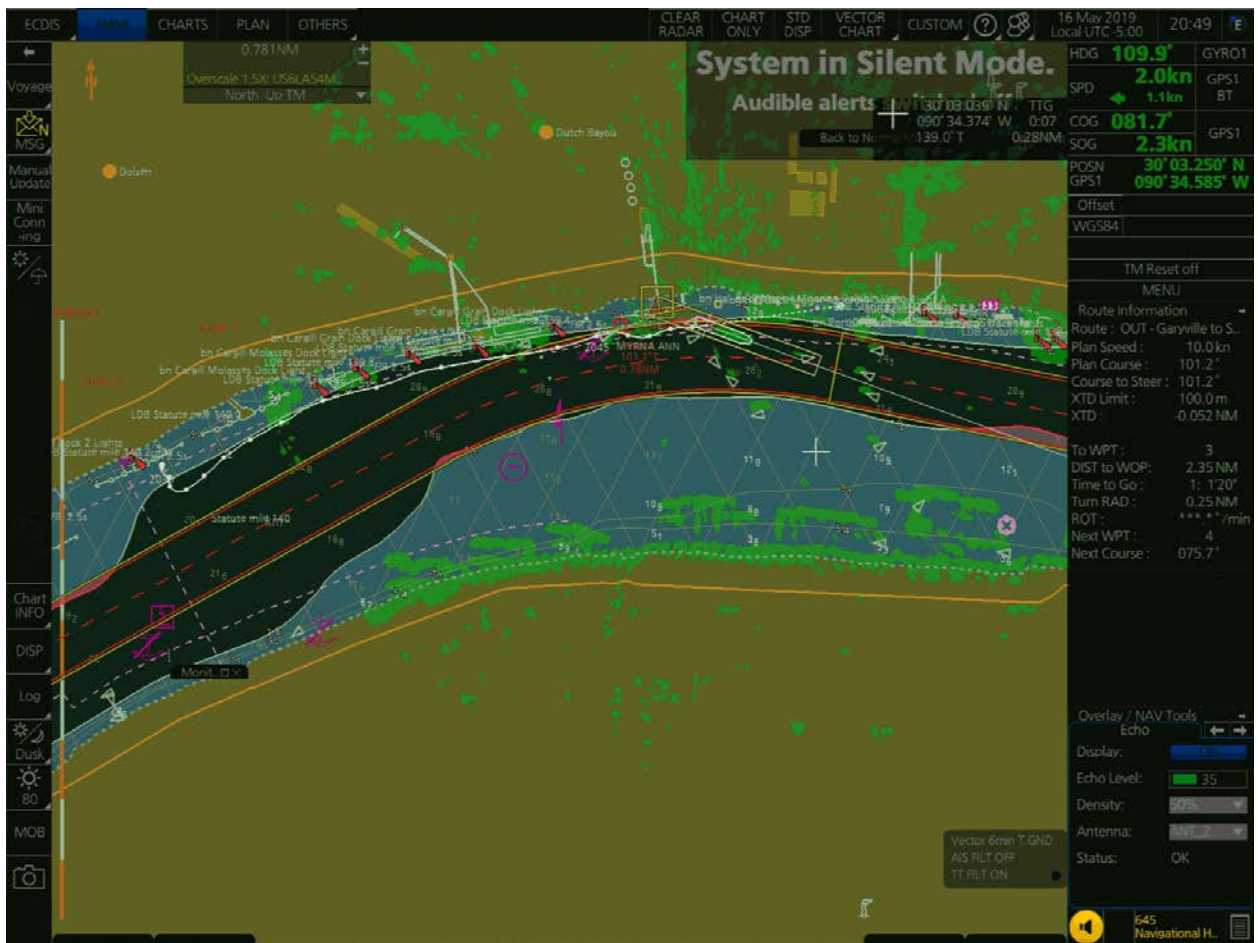


Figure 82. ECDIS display at 20:49:39 CDT.



Figure 83. ECDIS display at 20:49:54 CDT.



Figure 84. ECDIS display at 20:50:09 CDT.

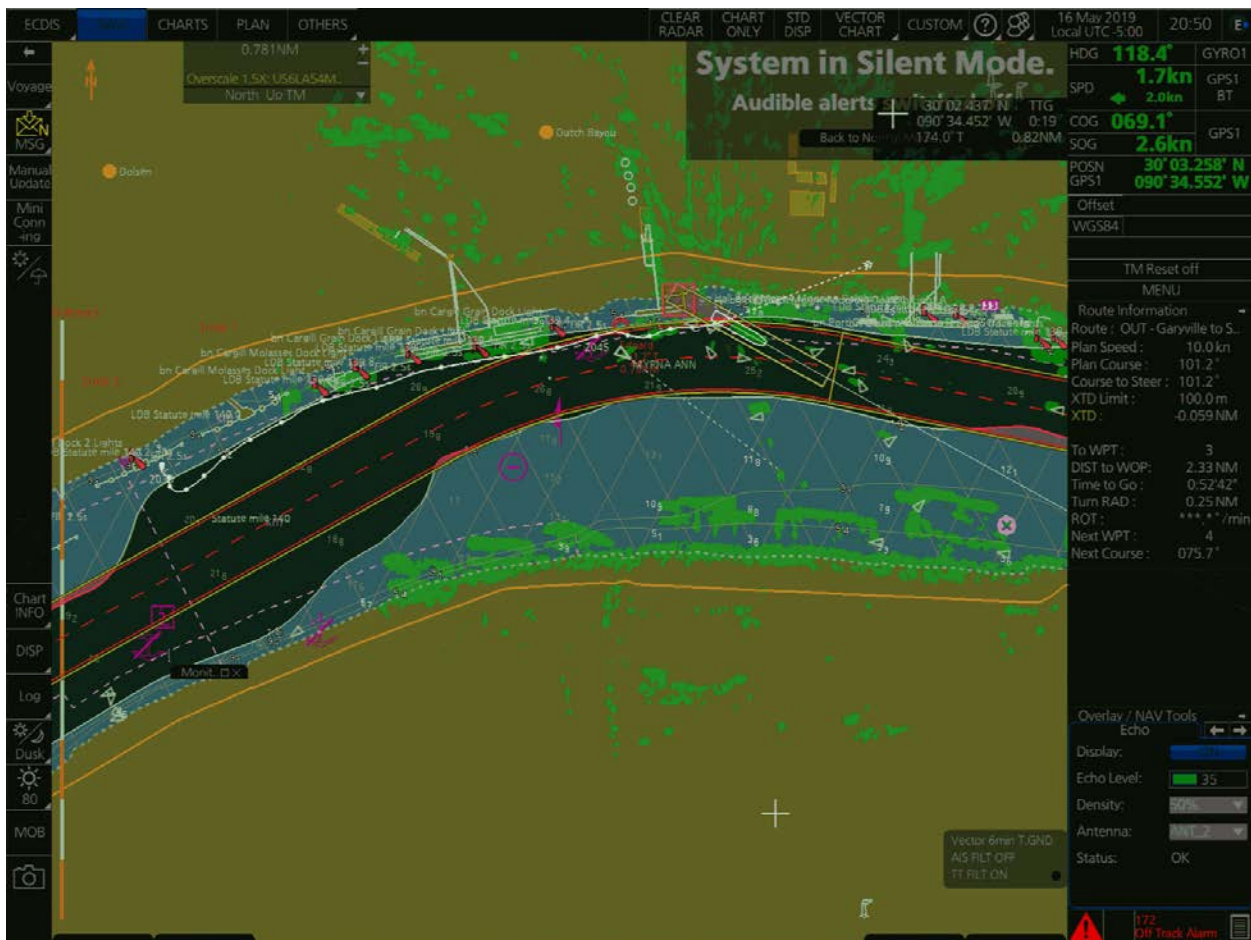


Figure 85. ECDIS display at 20:50:24 CDT.

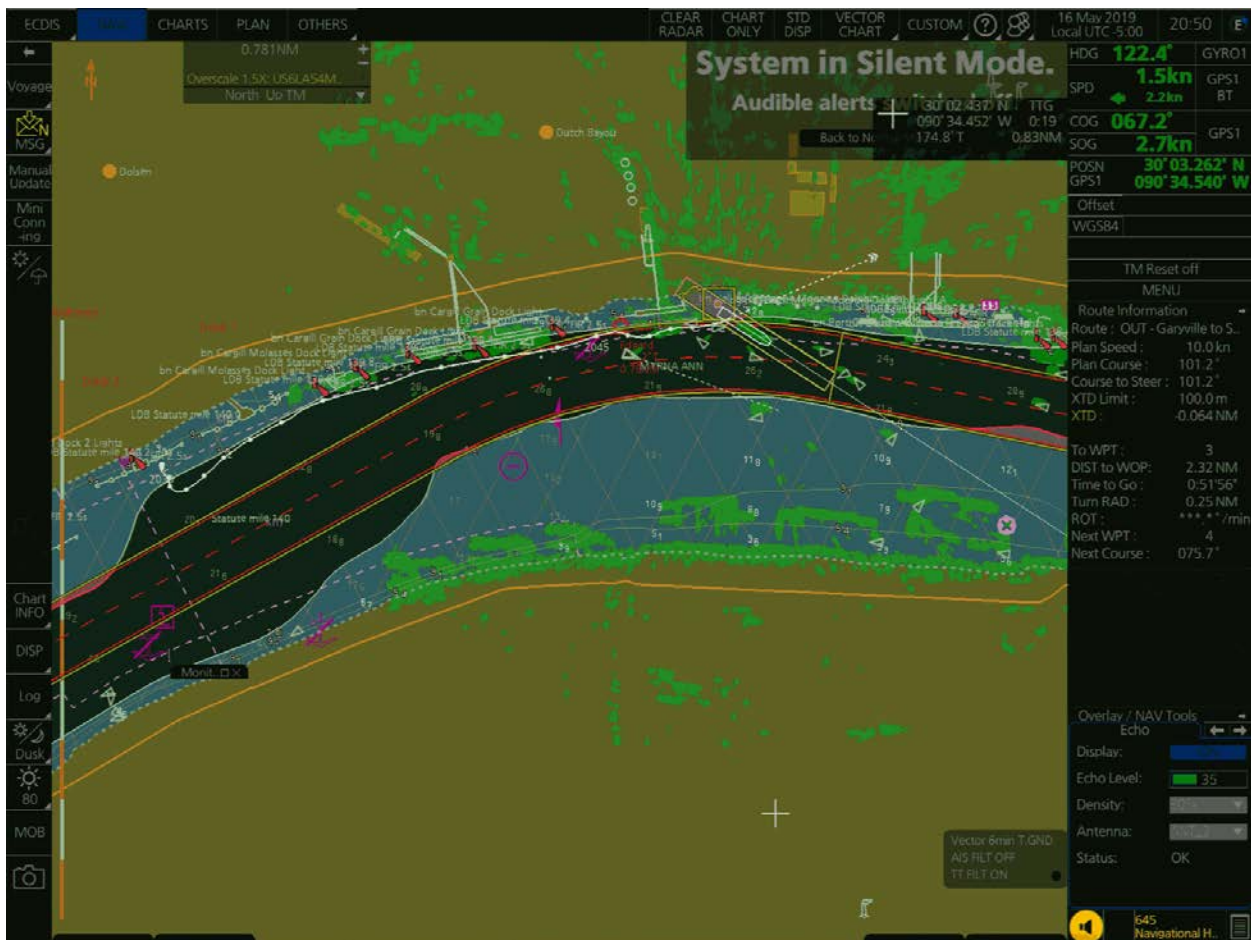


Figure 86. ECDIS display at 20:50:39 CDT.

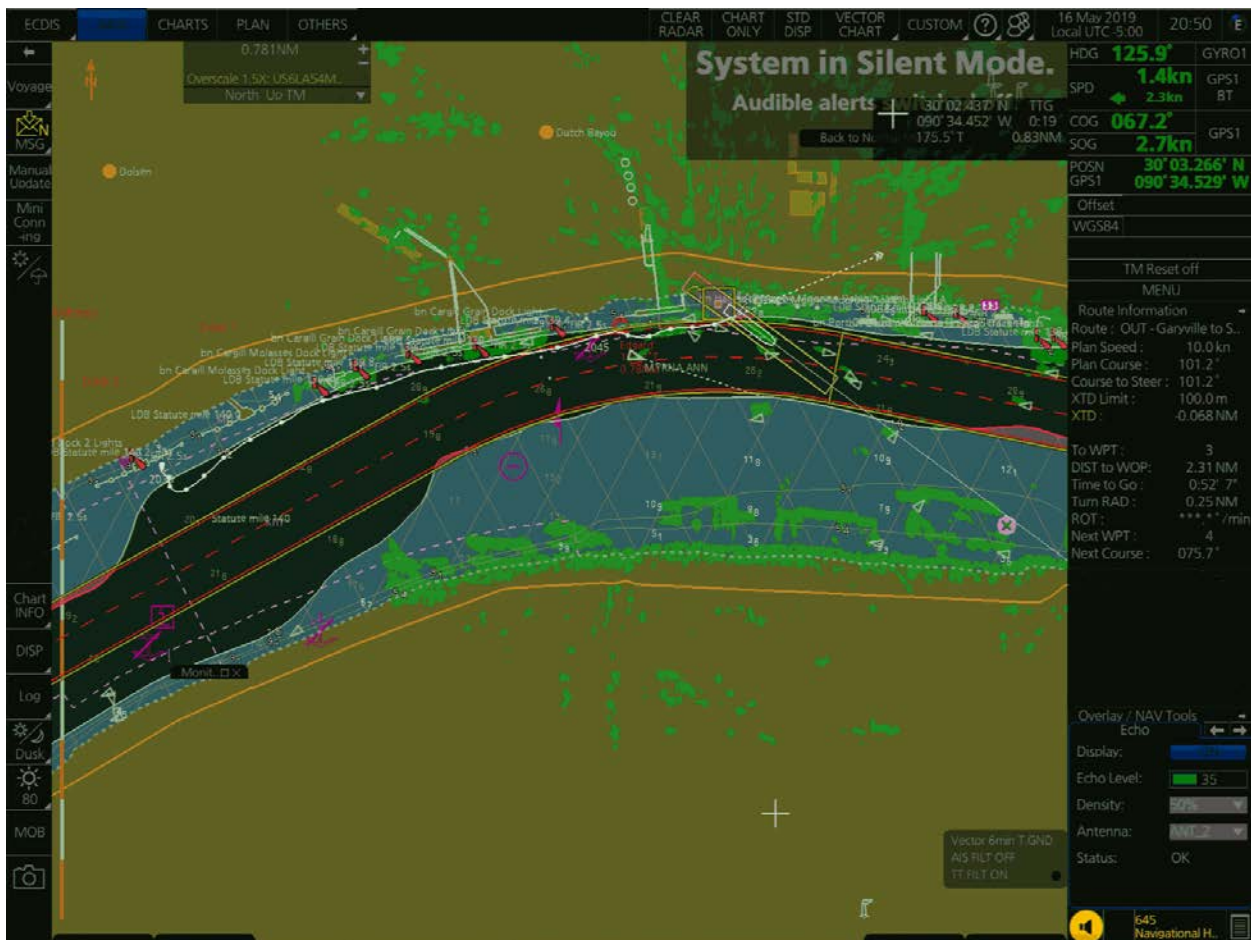


Figure 87. ECDIS display at 20:50:54 CDT.



Figure 88. ECDIS display at 20:51:09 CDT.

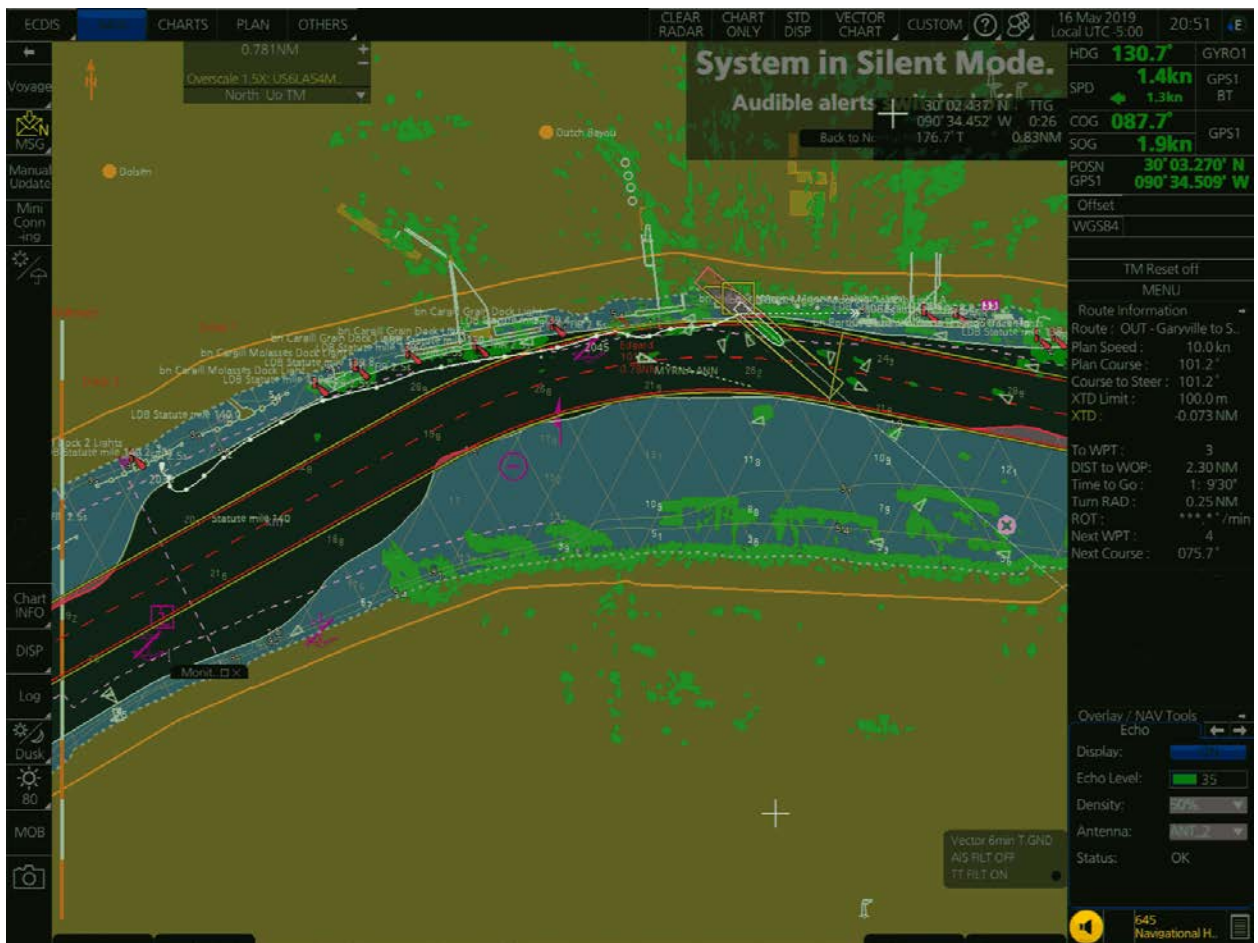


Figure 89. ECDIS display at 20:51:25 CDT.



Figure 90. ECDIS display at 20:51:39 CDT.

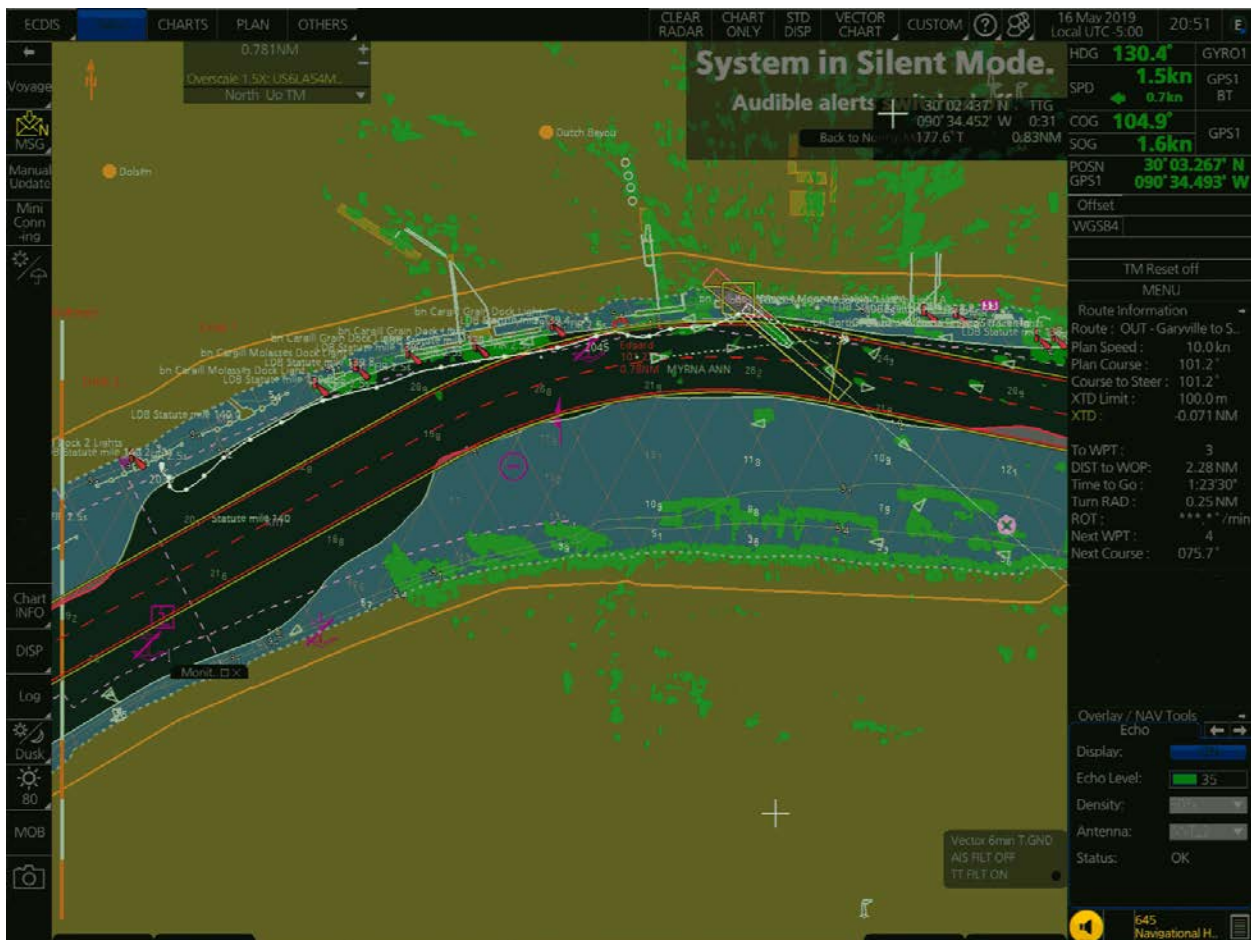


Figure 91. ECDIS display at 20:51:55 CDT.