Test Beacon 01-08 DEC 2017

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Program Manager

Search and Rescue Optimal Planning System

Test Plan

- **Tether Location-Enabled Beacon to a USCG SLDMB-3**
- **Deploy the Beacon and SLDMB-3 Near the Axis of the Gulf Stream off Ft Lauderdale, FL**
- **Track the Beacon and SLDMB-3 until Beacon Power Failure**
- **Compare all Solutions received with the SLDMB-3 Positions, Adjusted for Time**

Test Results

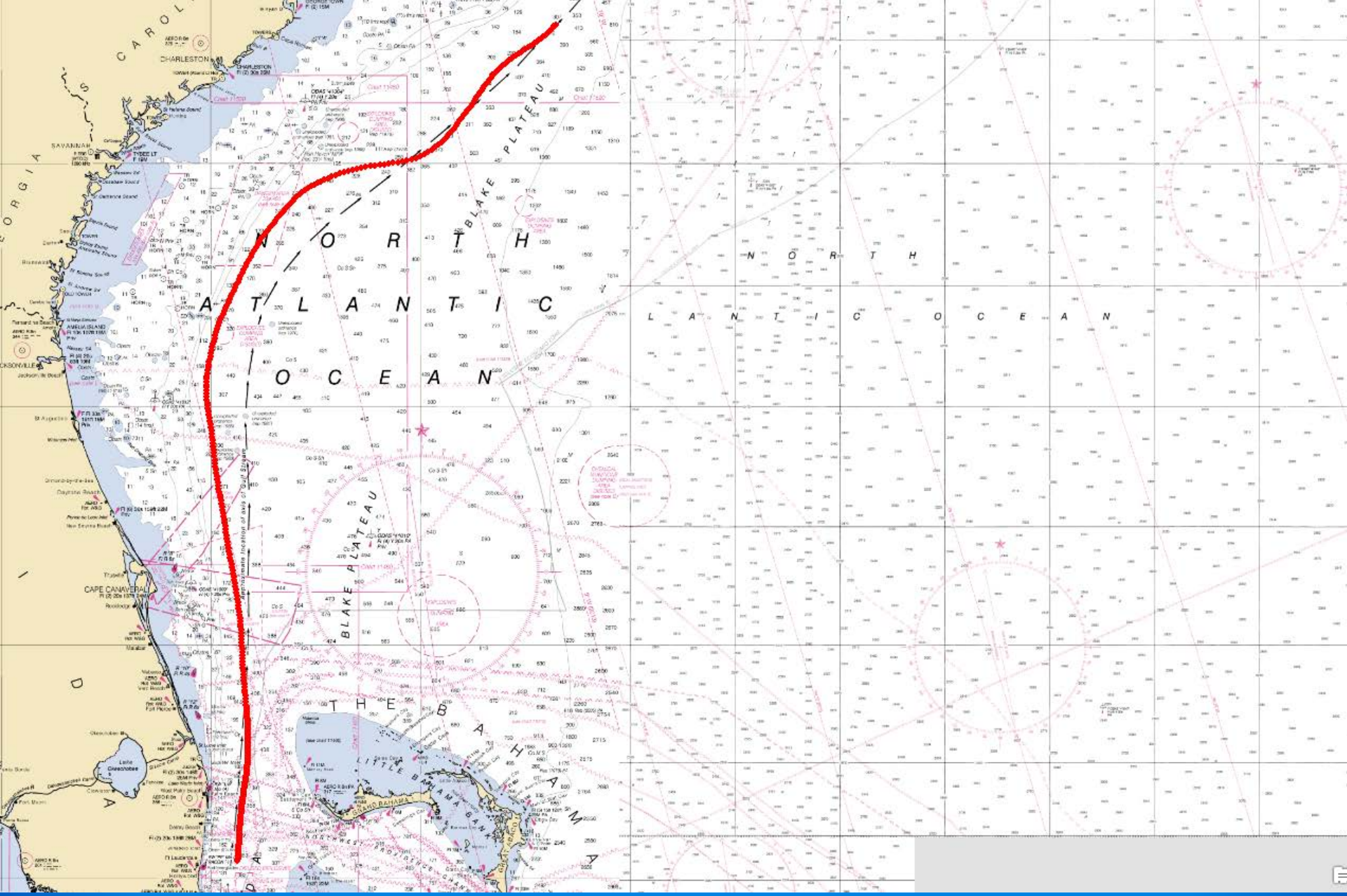
- **Beacon had 121.5 Homing Transmitter Disabled and Lasted Nearly 7 Days**
- **Beacon Refined “E” Solutions were in Nearly Exact Agreement with SLDMB-3**
- **Beacon’s Drift Rate was Between 2.5 kts and 3.5 kts**

Test Results

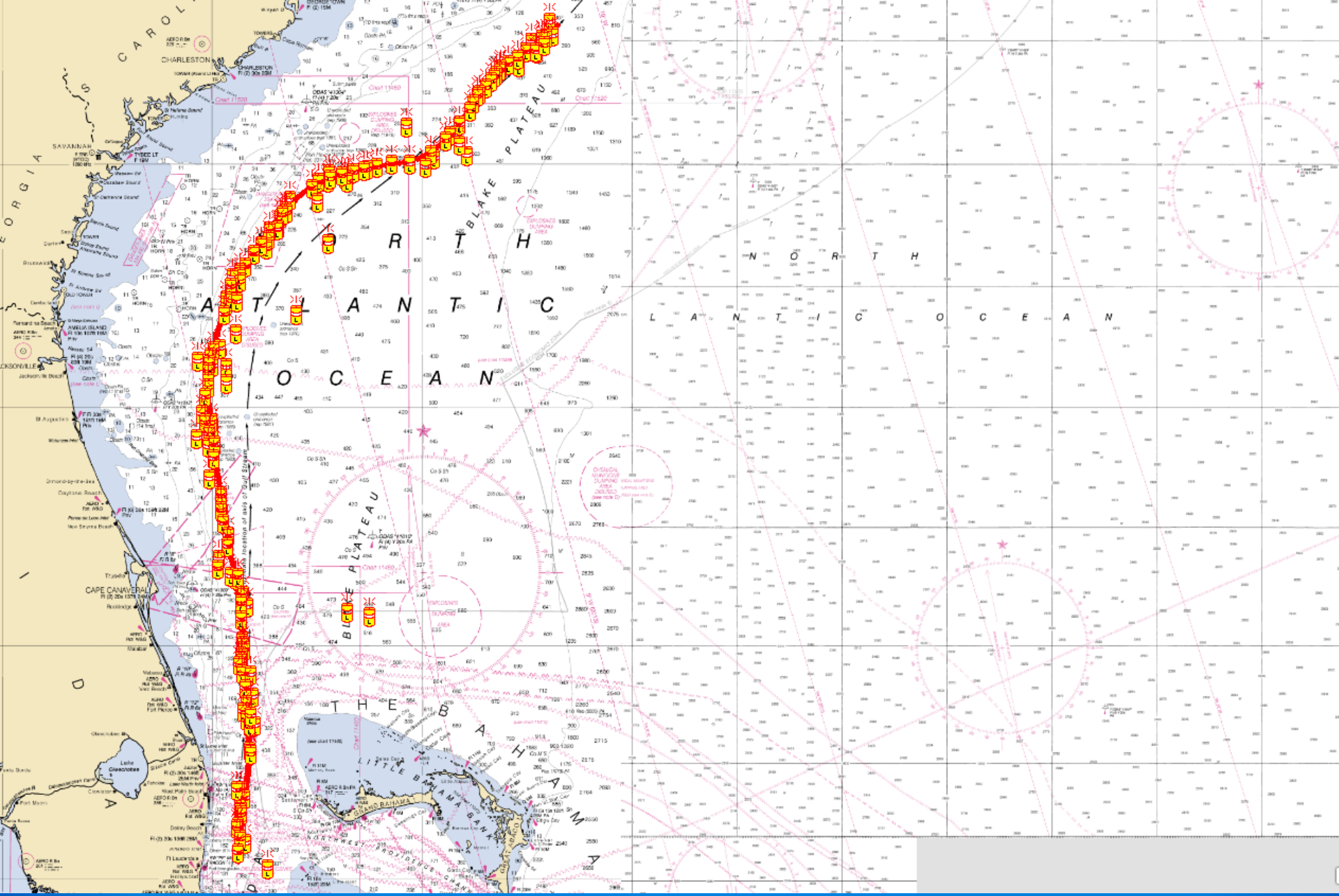
- **Doppler Solutions from Previous LEO/ GEO System Performed Well**
- **Doppler Solutions from LEO/GEO/MEO System Performed Nearly as well but had a few Outliers at Long Distances**
- **Difference of Arrival (DOA) Solutions Showed Significantly more Scatter and Less Stability**

Test Results

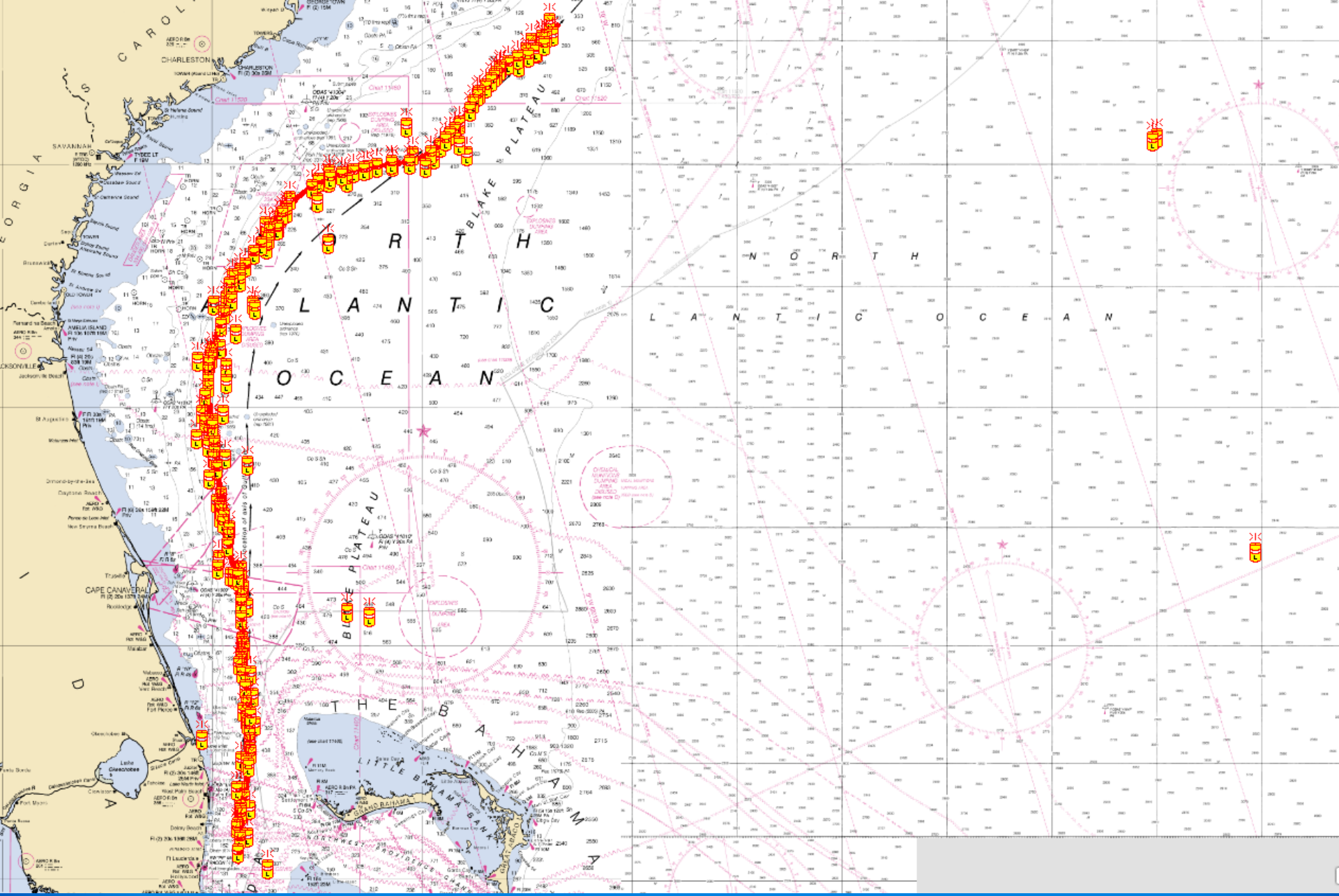
- **“Confirmed” Positions did not Perform as well as Hoped, but better than Expected.**
- **“Confirmed” Positions Showed some Unexpected [Mis]Behaviors**


CHARLESTON
SAVANNAH
CAPE CANAVERAL
NORTH ATLANTIC OCEAN
BLAKE PLATEAU
THE BAHAMAS
GRAND BAHAMA
NORTH ATLANTIC OCEAN

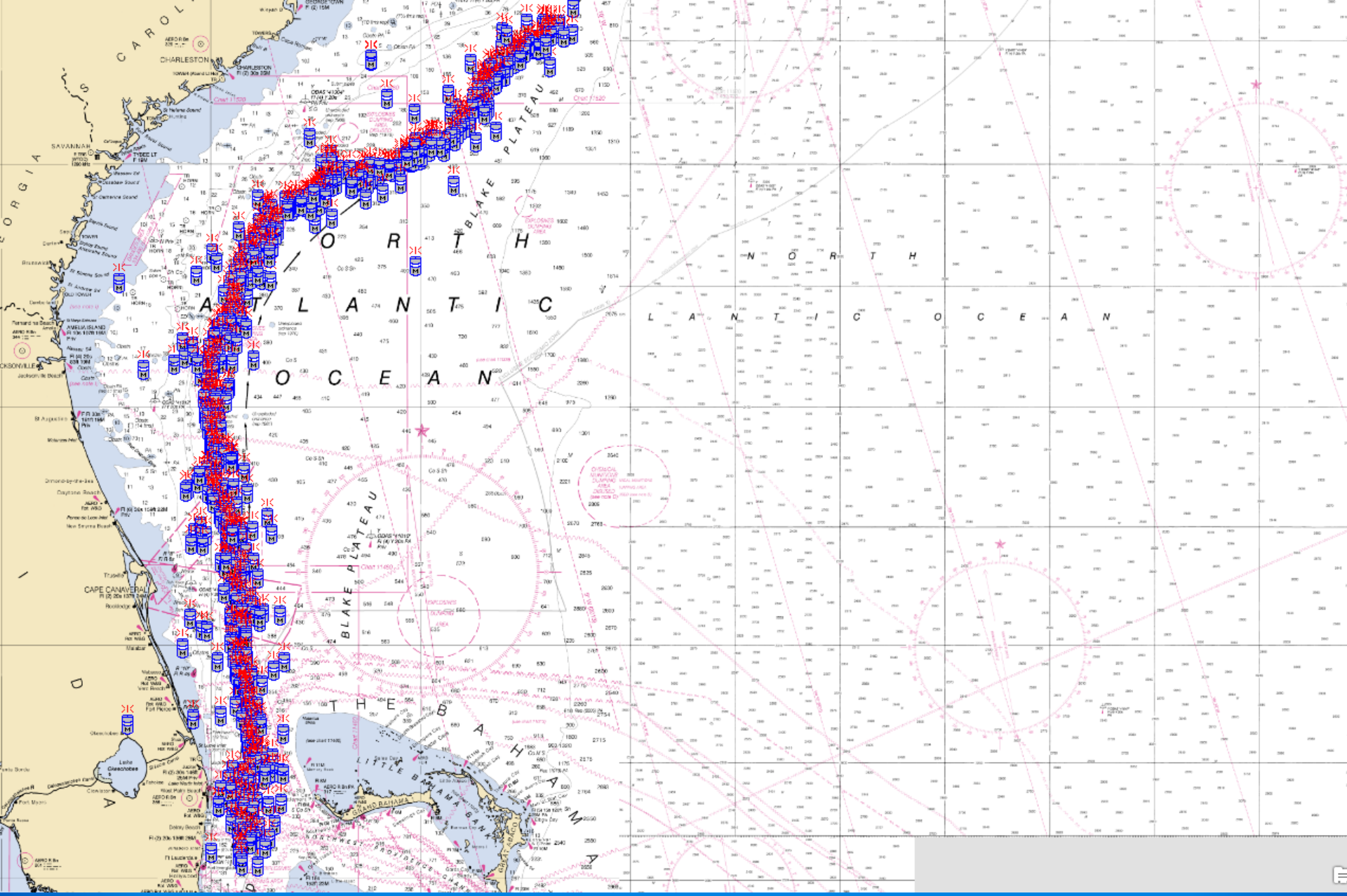
SLDMB TRACK



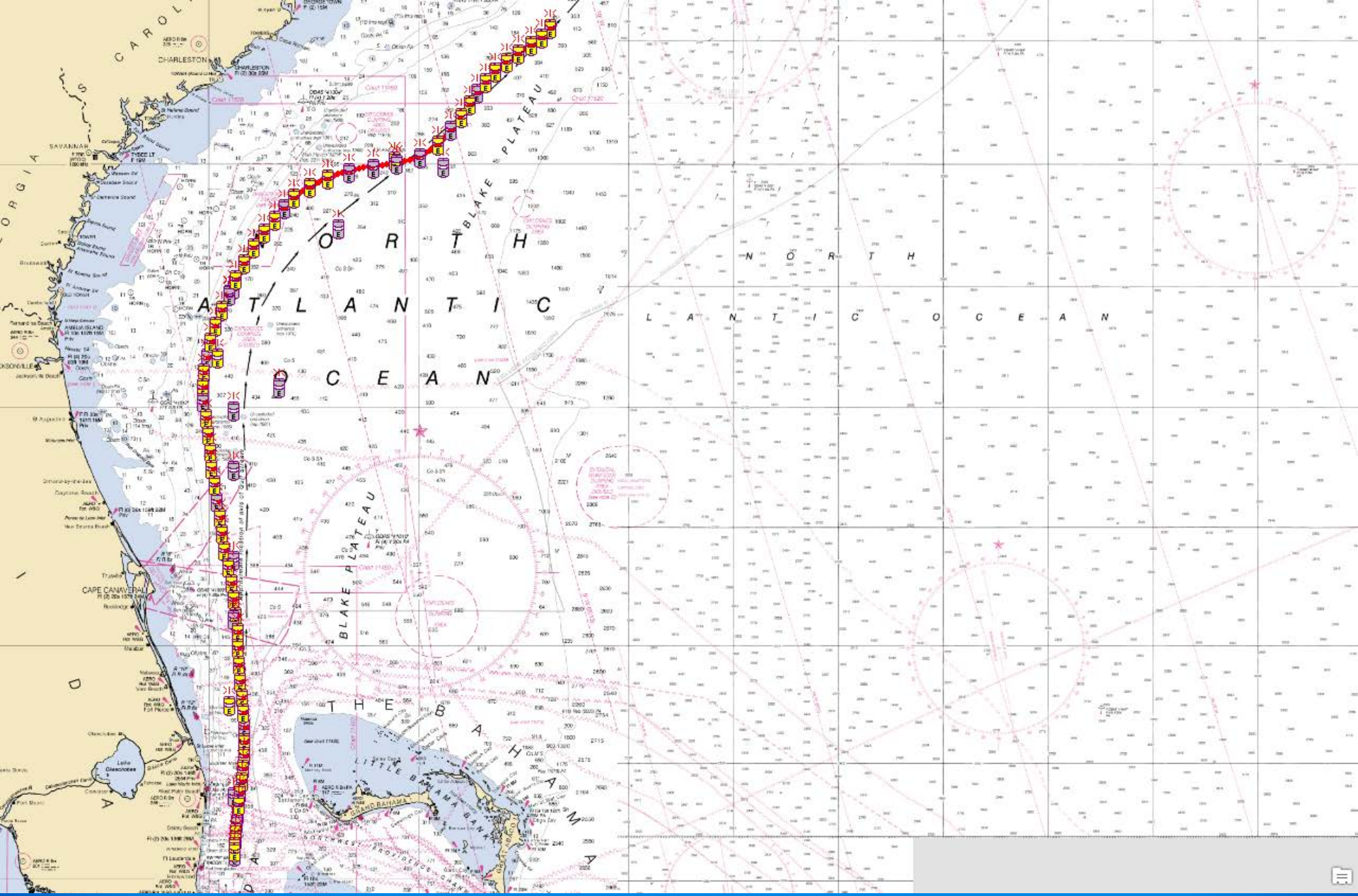
DOPPLER TRACK (Old LEO System)



DOPPLER TRACK (New L/G/M System)



DOA TRACK (New L/G/M System)



ENCODED TRACK (New L/G/M System)