

# MS - Hamburg Vessel of opportunity Survey



Lofoten, Norway  
August, 2013

## Lofoten, August 2013 MS Hamburg midnight wreck survey

Survey conducted from vessel of opportunity Vessel with:

- NORBIT bathymetry sonar iWBMS GNSS/INS
- Propulsion by Magnus Andersen
- Open source data acquisition software

No support vessels

Objective to demonstrate the compactness / ease of installation on vessels of opportunity of the Norbit iWBMS



15 August , 2013

## Survey Site, Lofoten Norway



**NORBIT**

[www.norbit.com](http://www.norbit.com)



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## Lofoten, August 2013 iWBMS mounting bracket



**NORBIT**

[www.norbit.com](http://www.norbit.com)



Midnight survey Lofoten, August 2013 iWBMS Operators Display



# Midnight survey Lofoten, August 2013 GNSS/INS stability test





## Midnight survey Lofoten, August 2013 MS Hamburg wreck survey

### MS Hamburg

SS Hamburg steam ship build in 1911, which was sunk on March 4th 1941 during the "Lofoten Raid", an attack by British and Norwegian troops on the German occupiers.

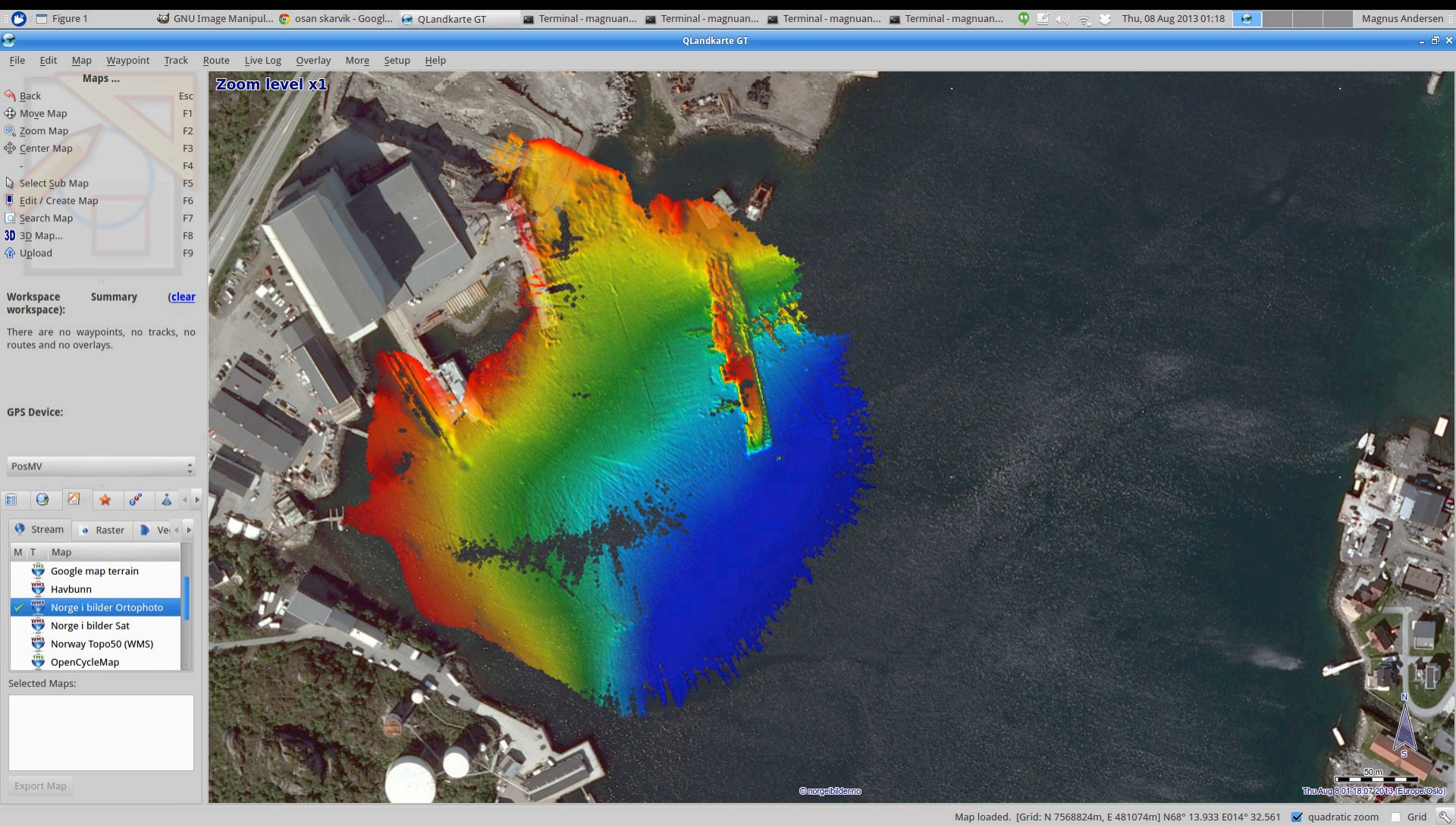
The ship, 9000 tons, had been the most modern fish-oil processing ship in the world and was presumably processing the winter cod catch when it got sunk.

The stern is a mess, due to salvage, while from the funnel forward, it is almost intact,



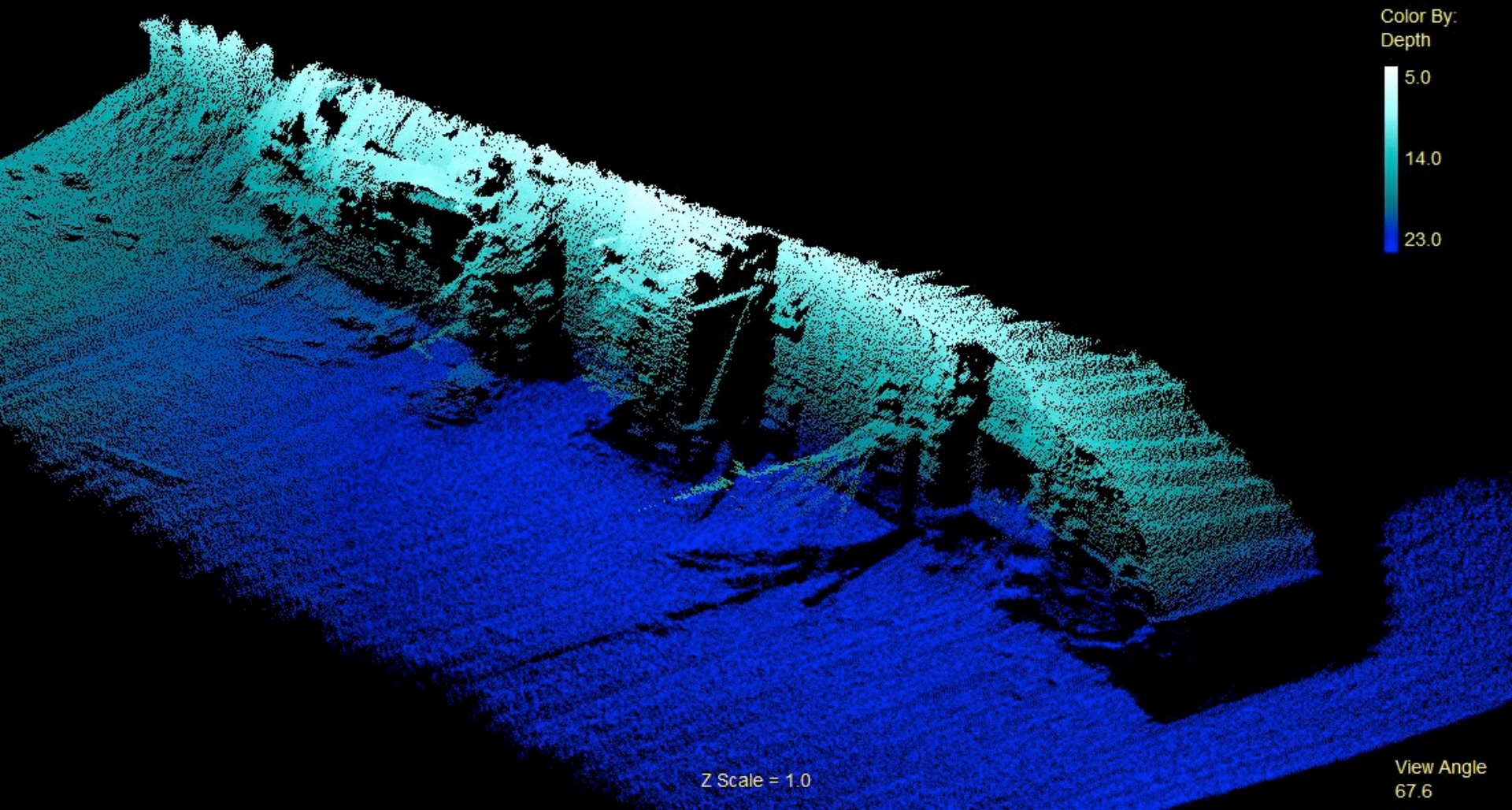
# Lofoten, August 2013

## MS Hamburg wreck survey



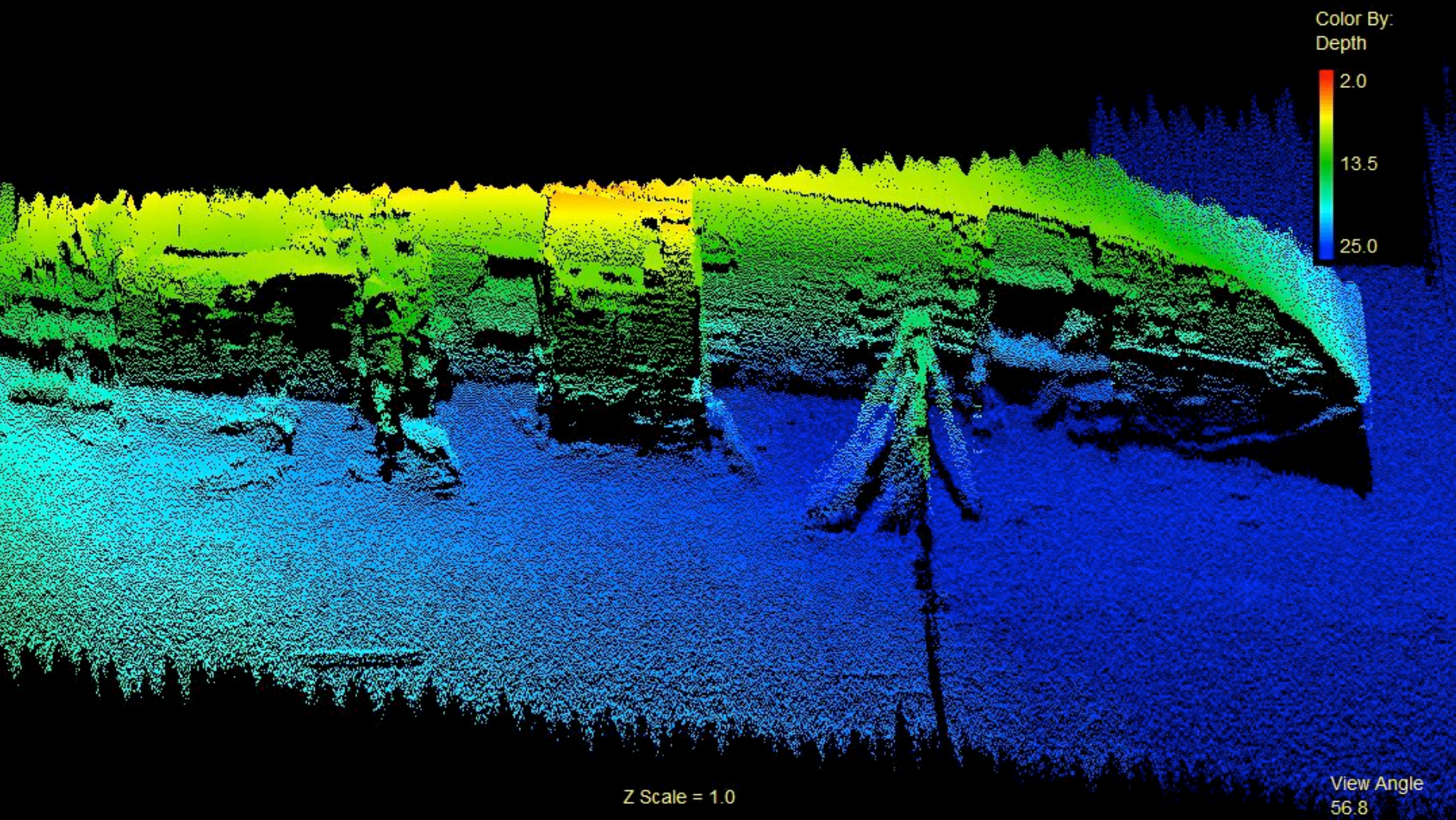


Midnight Survey Lofoten, August 2013  
MS Hamburg wreck





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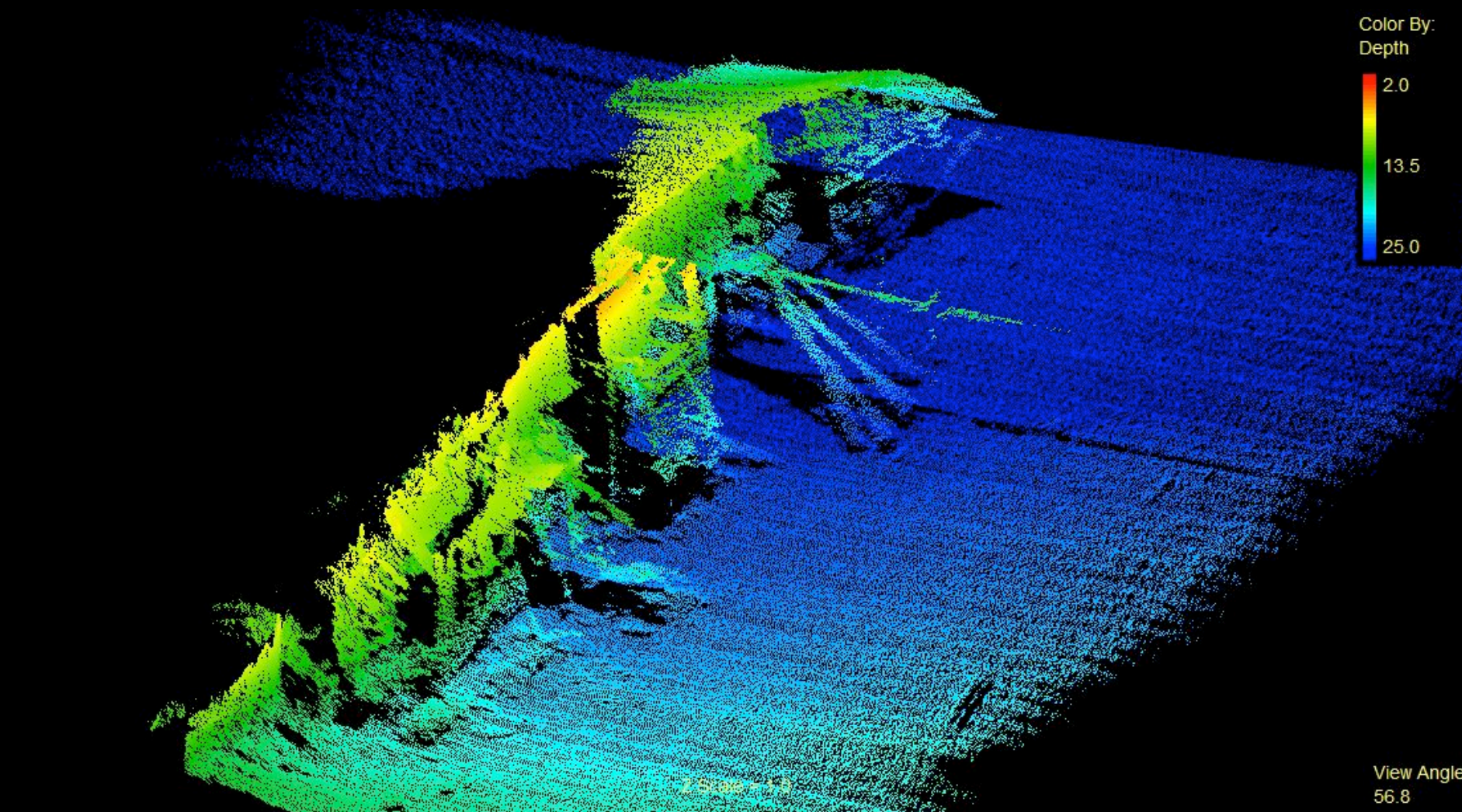


Z Scale = 1.0

View Angle  
56.8



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MS Hamburg wreck

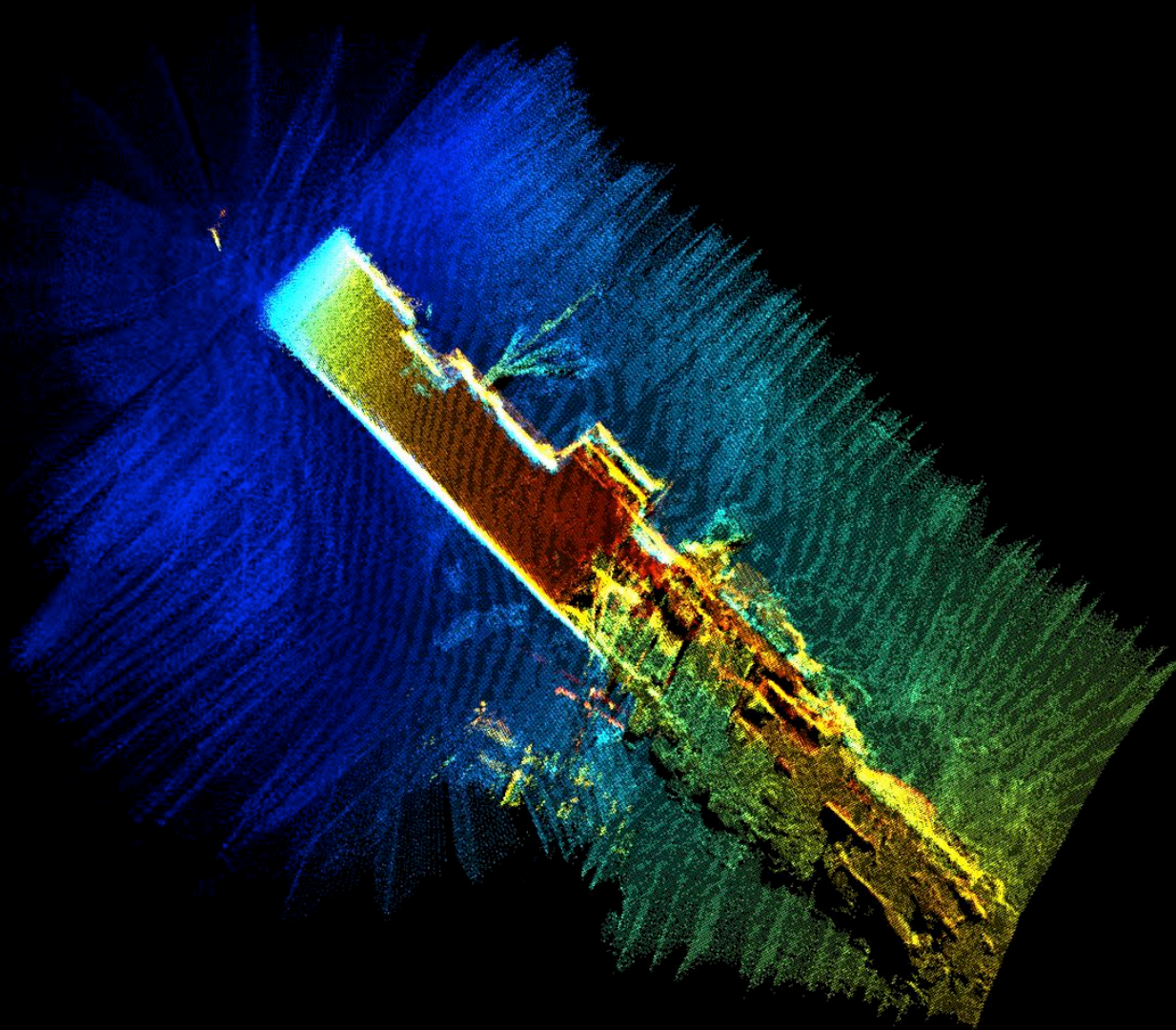




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## MS Hamburg wreck



**NORBIT**

[www.norbit.com](http://www.norbit.com)

RAW data recorded no  
processing



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END