

NORTEK VM OPERATIONS

Vessel Mounted ADCP

a solution to secure offshore operation

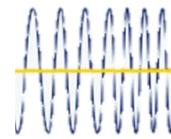
nortekgroup.com



Introduction to Nortek



ADCP and DVL
instrumentation



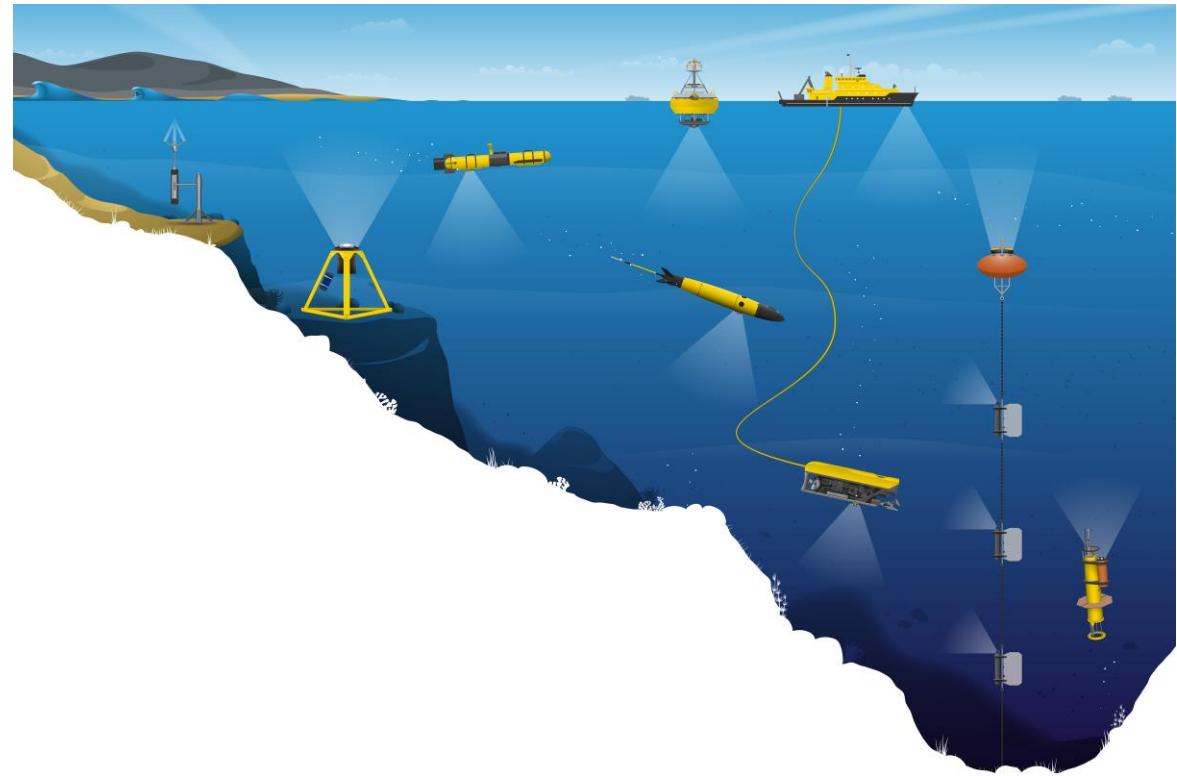
Doppler



Founded in
1996

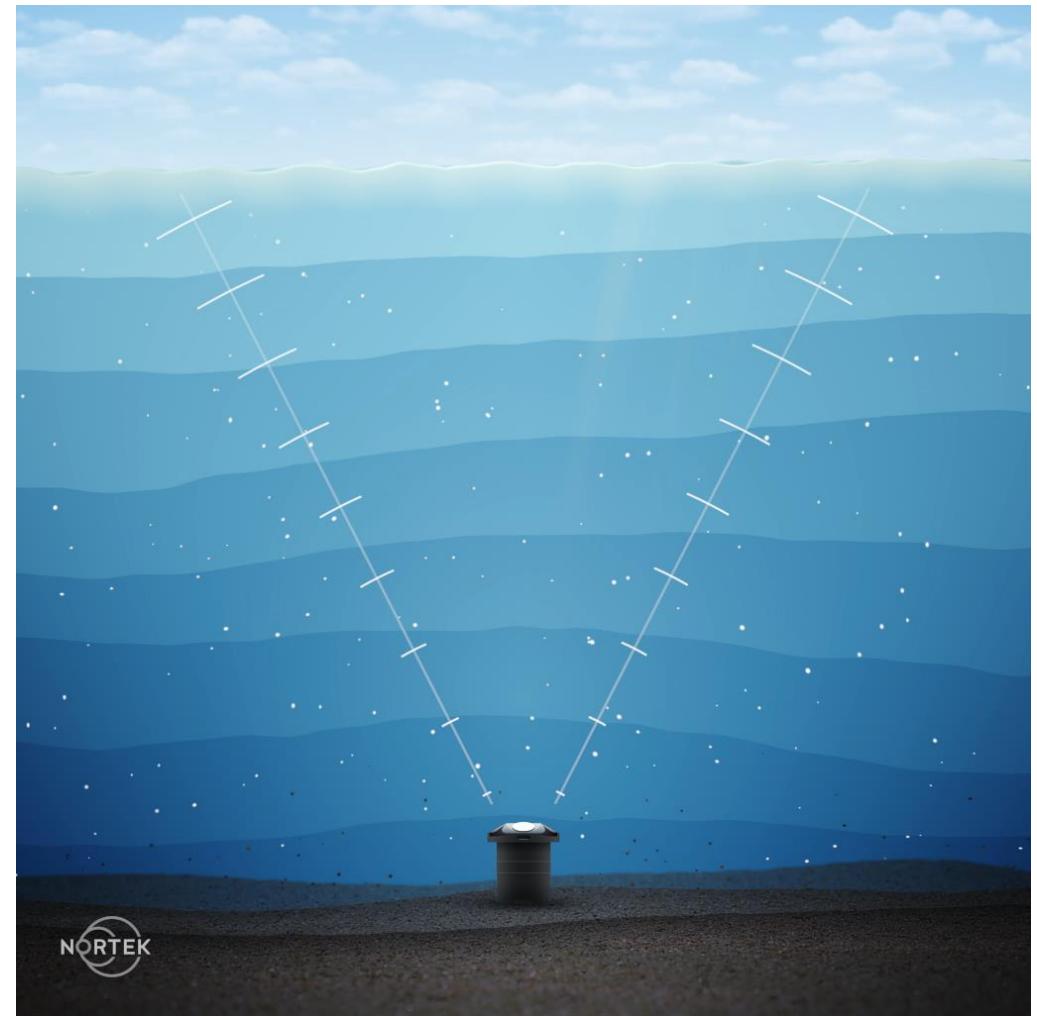


9 offices



Current profiling

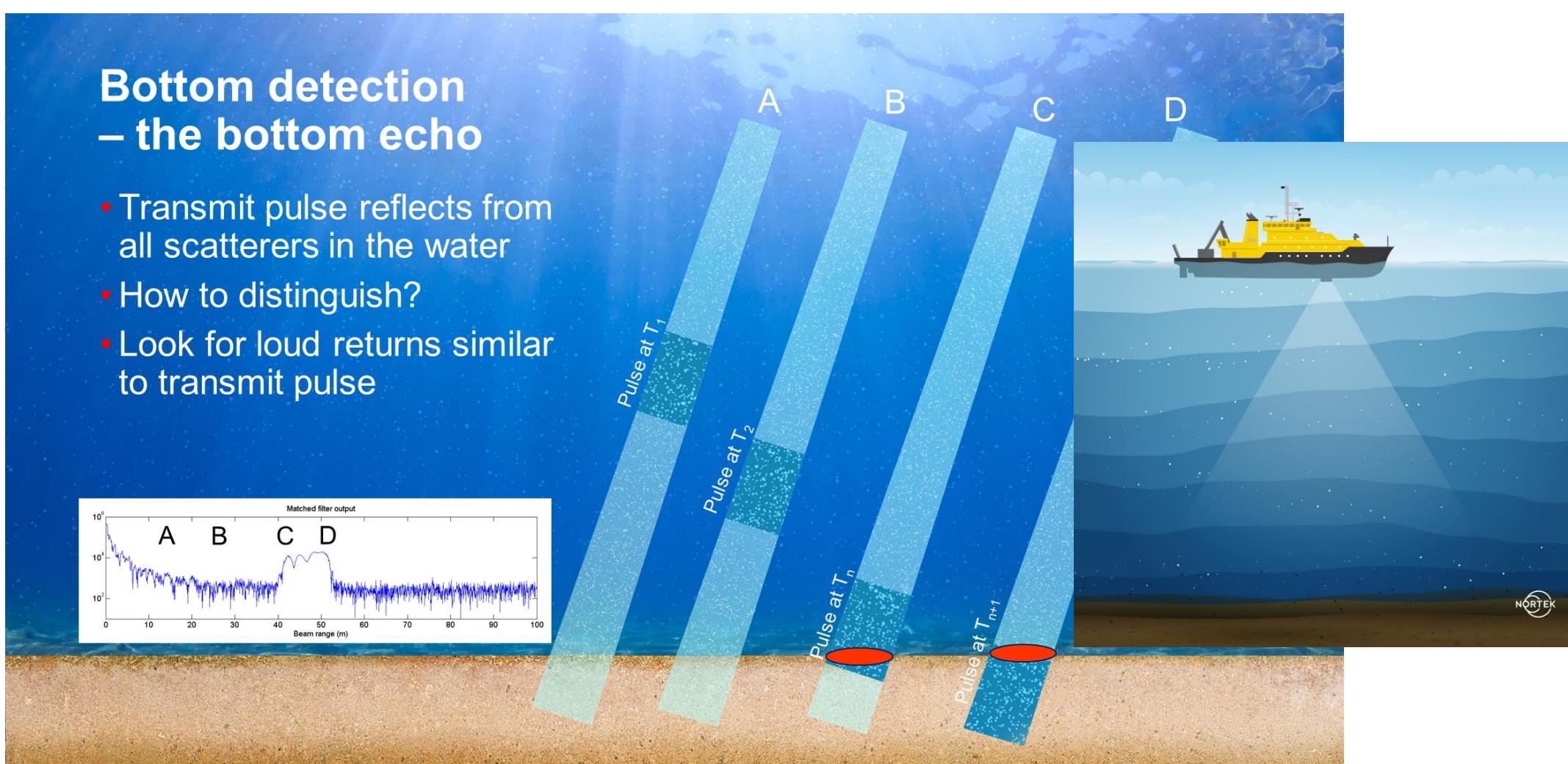
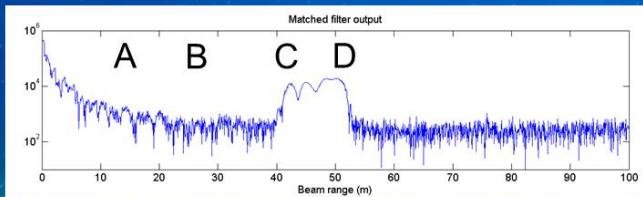
- Doppler effect
- ADCP profiler



Bottom track

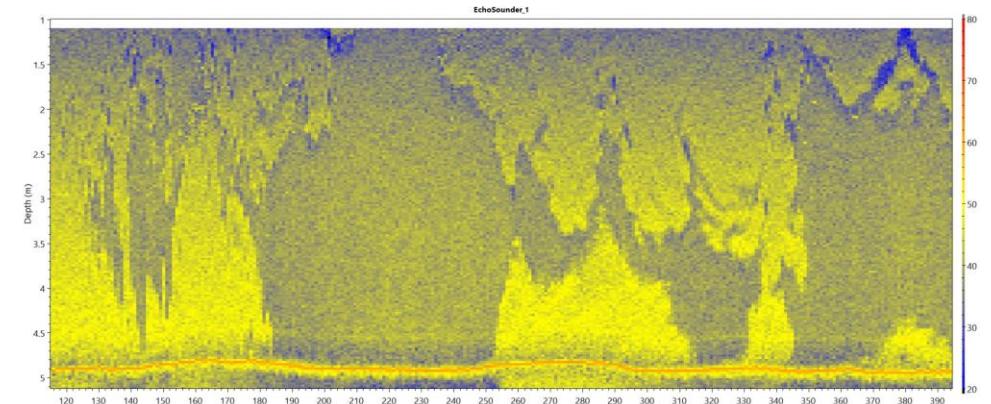
Bottom detection – the bottom echo

- Transmit pulse reflects from all scatterers in the water
- How to distinguish?
- Look for loud returns similar to transmit pulse



VM ADCP set-up

- Current profile (magnitude and direction)
- Navigation source for STW, SOG
- Combined 5th beam solutions
 - Vertical velocity
 - Echosounder profiles
- Oceanographic & Coastal research
 - Academic and hydrographic surveyors
 - Complex software and visualization
 - Extensive raw datasets for post-processing



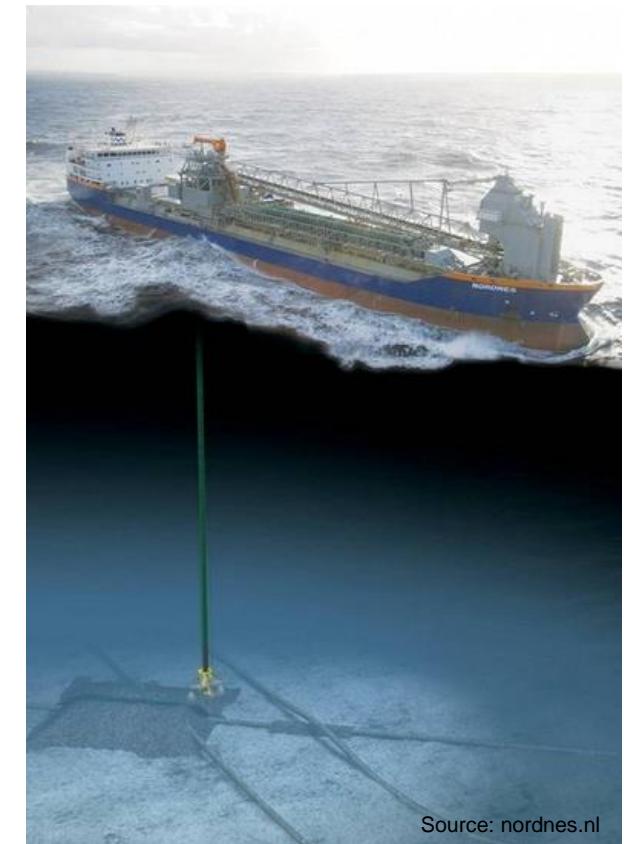
VM ADCP on operational vessels

- VM ADCP not a common solution
- Use of low-end solutions



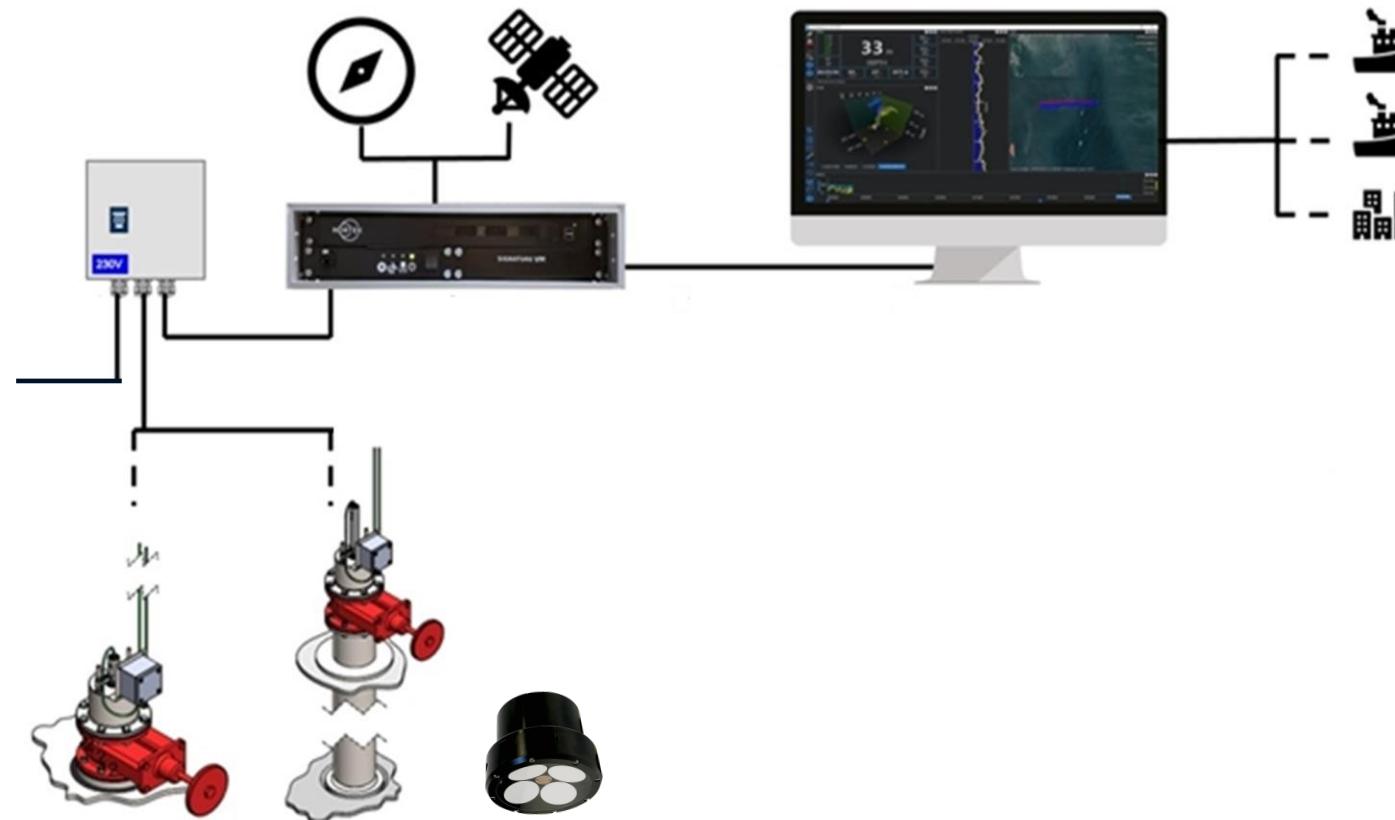
Current affecting offshore operations

- Load forces
- Touch down location
- ROV & diver inspections
- Towed instrumentation surveys
- Fuel consumption monitoring
- Offshore USV applications



Source: nordnes.nl

New approach



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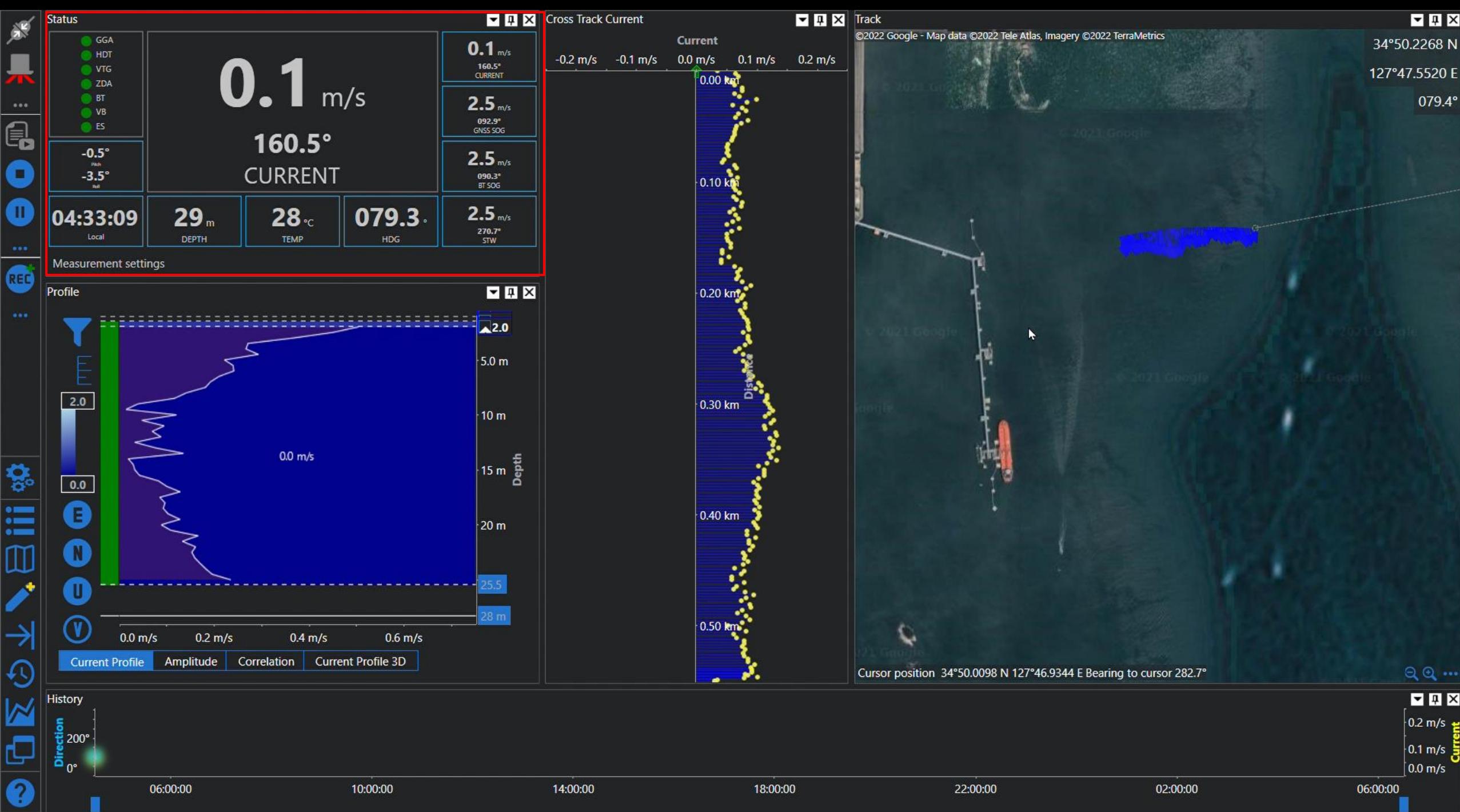
- Concave transducer design
- Flush fluid filled lens
- Independent to speed of sound changes
- 333 kHz broadband
- Nortek proprietary DVL bottom track format

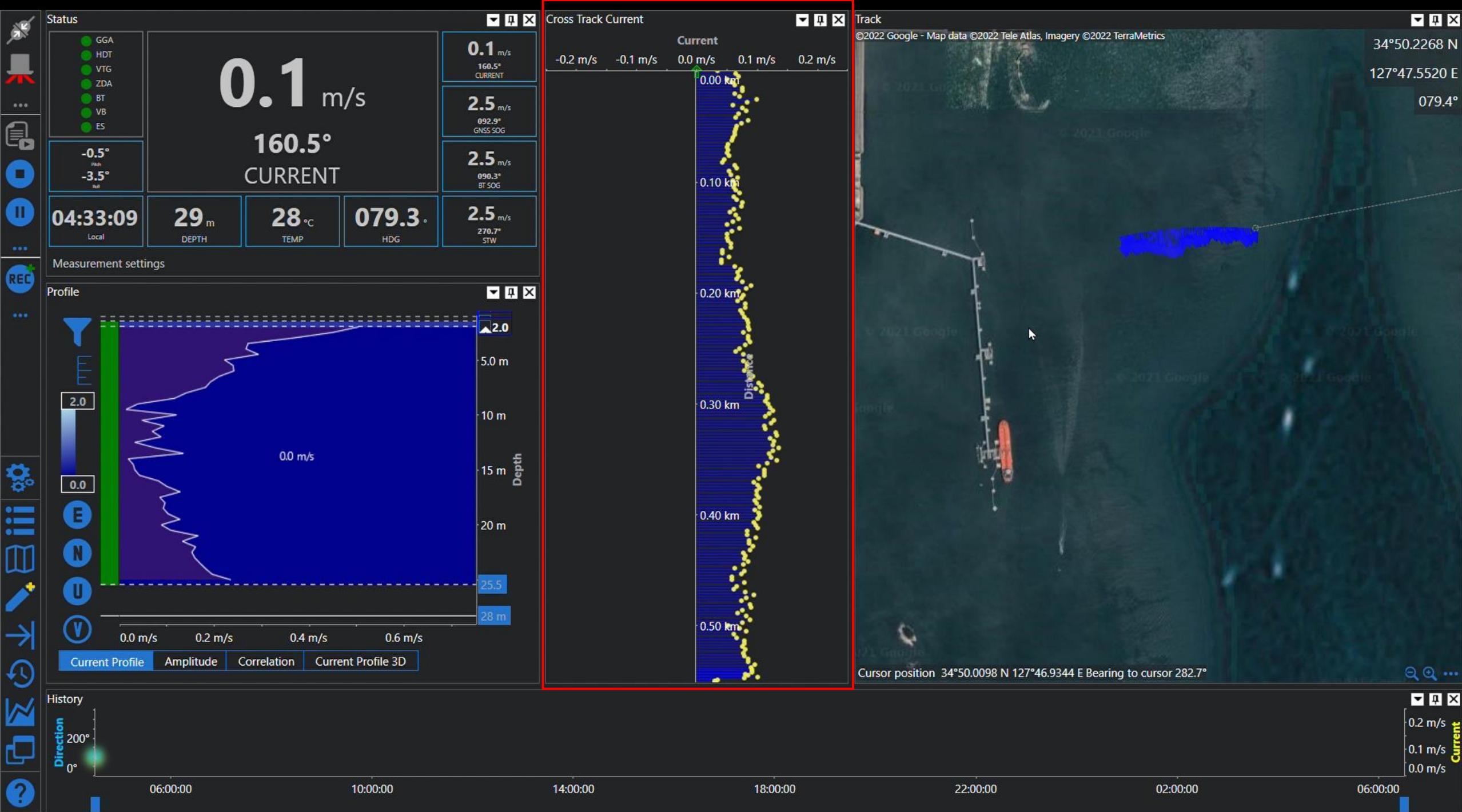


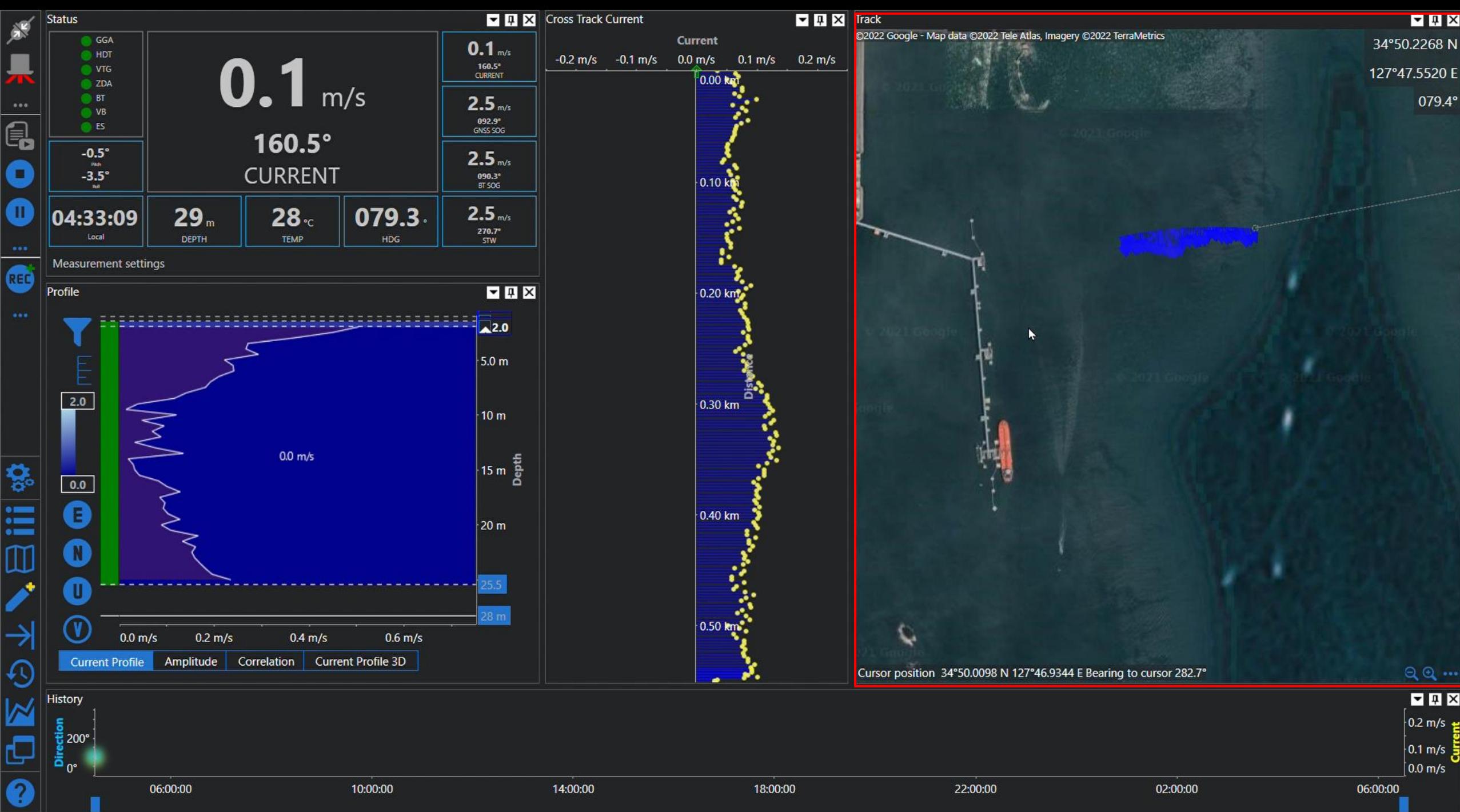
Bottom penetration unit

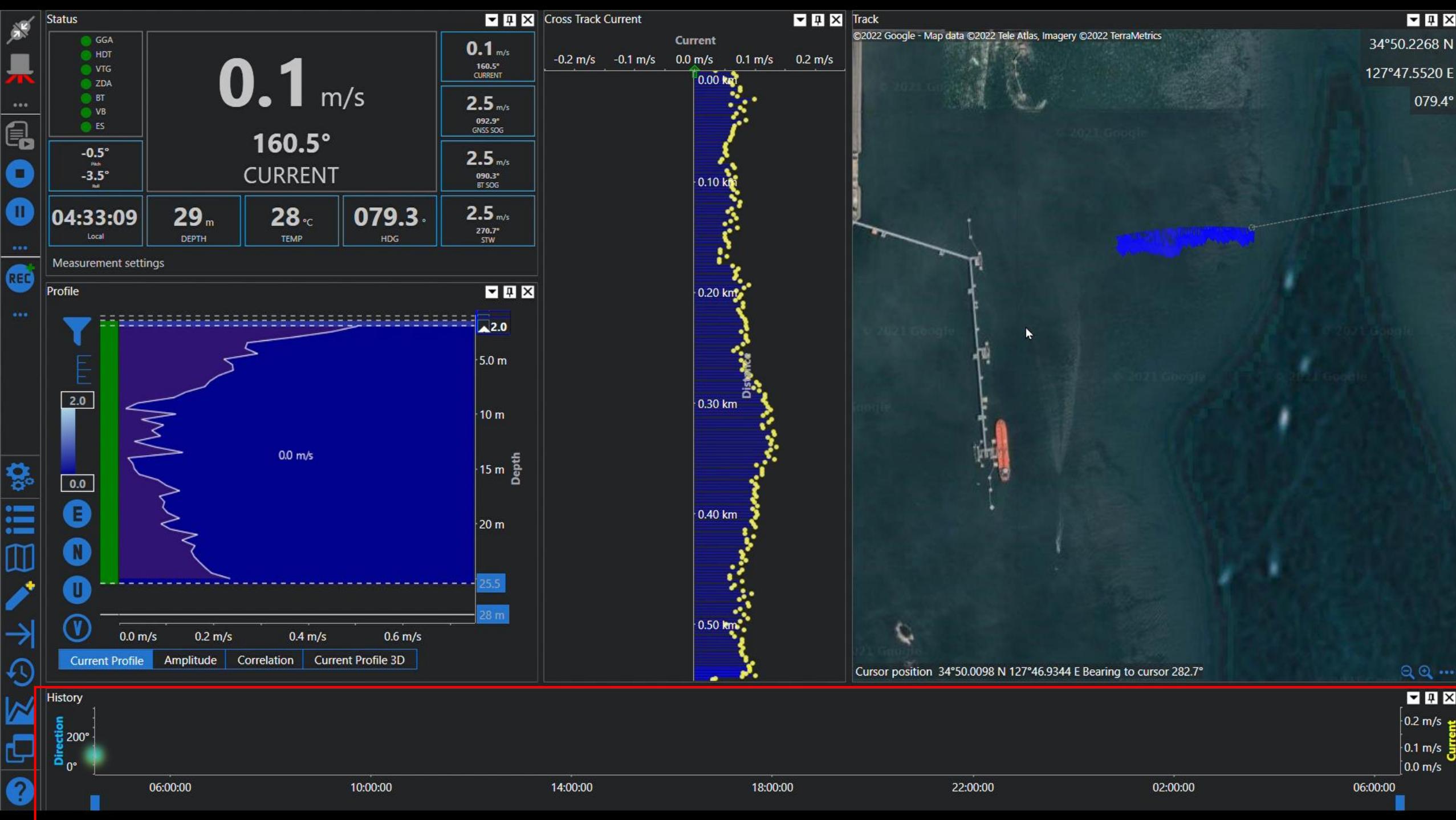
- DNV type approved sea valve
- Single or double bottom configuration

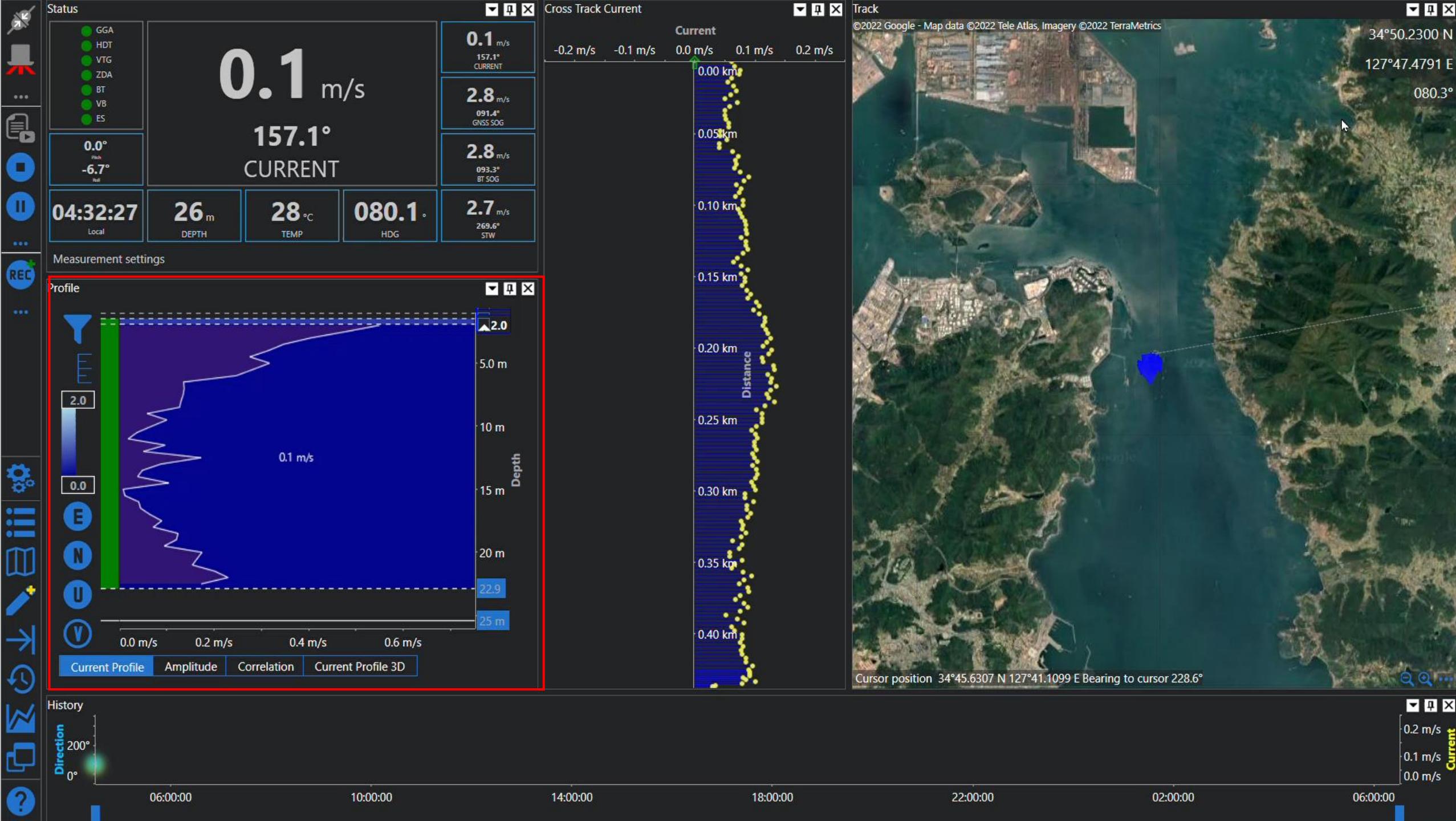


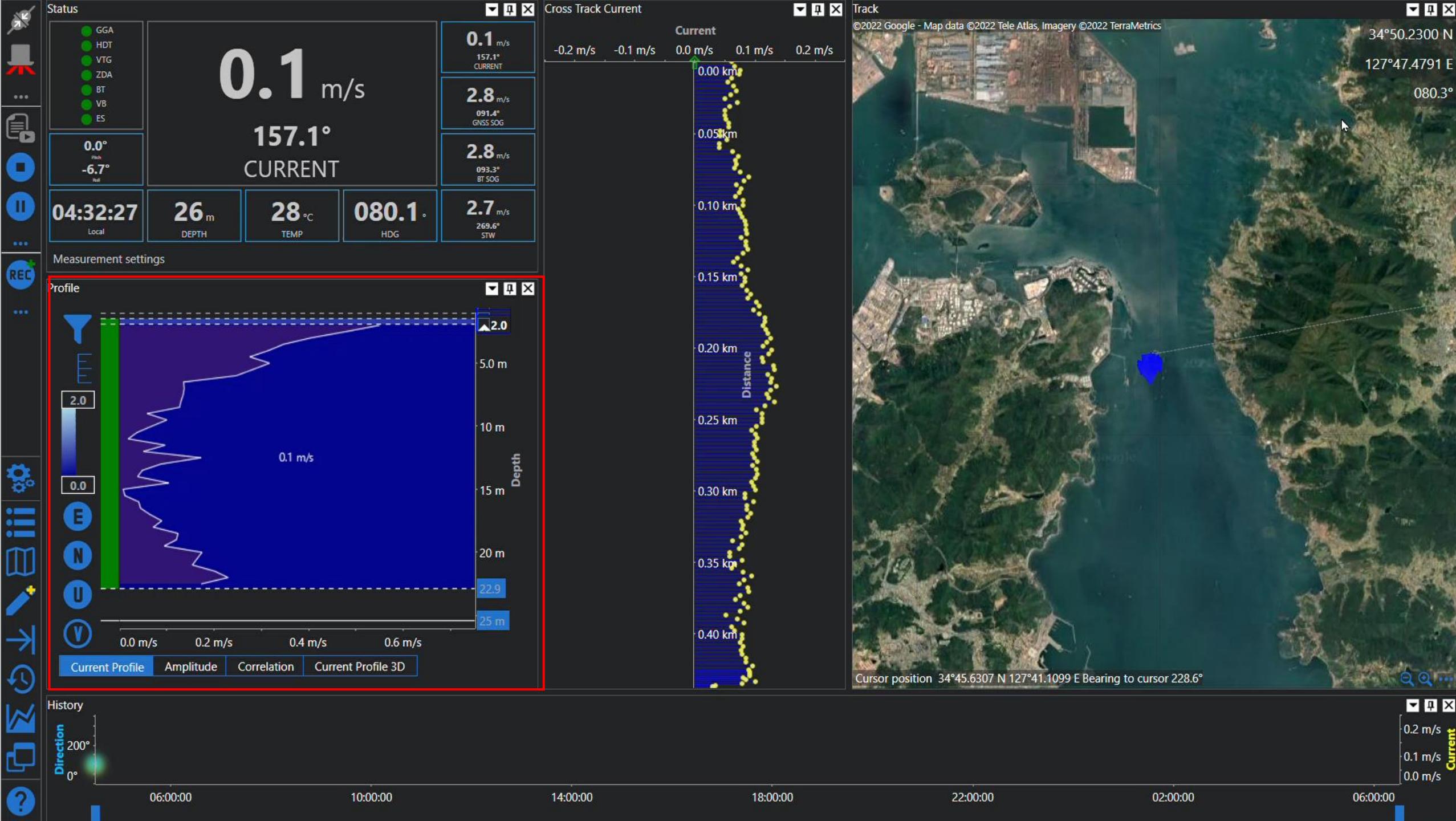












Wrapping up

- Marine situational awareness directly applicable to surveyor, superintendent or client
- DNV type approved, in water serviceable solution
- VM ADCP with DVL capability
- Valuable database





Questions & more information

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