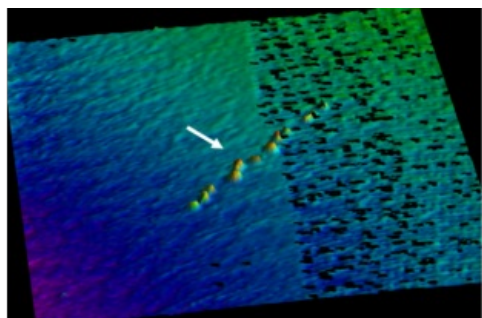


# Demonstrating Object-detection Capability at Oceans'16 MTS/IEEE



Teledyne Optech chief scientist Dr Viktor Feygels will attend the Oceans 16 MTS/IEEE conference in Monterey, California, USA, on 22 September 2016 to present the object-detection capability of the [Optech CZMIL Coastal Zone Mapping and Imaging Lidar](#). The presentation is titled 'Meeting the International Hydrographic Organization Requirements for Bottom Feature Detection Using the Coastal Zone Mapping and Imaging Lidar (CZMIL)' and was co-written with Teledyne Optech's Vinod Ramnath and Brant Smith, and with Yuri Kopilevich of ITMO University, St. Petersburg, Russia. In his presentation, Dr Feygels will show how the CZMIL meets the IHO Order 1a requirements for mapping shipping channels and detecting underwater hazards.

Using data from a full seafloor search conducted in Florida, the presentation will focus in particular on the processing techniques that improve the CZMIL's ability to detect underwater objects sized 2×2×2m and smaller.

## Understanding Advantages and Limitations

The test survey for object-detection performance was conducted by NAVOCEANO near Panama City, Florida, where the diffuse attenuation coefficient,  $K_d$ , was on average  $0.15\text{--}0.2\text{m}^{-1}$ . The simultaneous collection of the water column's optical parameters coincident with the CZMIL's overflights of its targets allows for a more nuanced understanding of the advantages and limitations of the survey system and environment as a whole, beyond merely a binary 'yes' or 'no' claim to Order 1a capability.

Visitors interested in the use of Lidar for shallow-water bathymetry can catch this presentation during at the Oceanographic Instrumentation and Sensors 6 session at 3:30-5:00 pm on Thursday 22 September in the Portola Plaza Hotel's Bonsai 3 room, or talk with a Teledyne Optech representative at the show.

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<https://www.hydro-international.com/content/news/object-detection-capability-demonstrated-at-oceans-16-mts-ieee>

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