



ODU R/V Fay Slover

DEVELOPING A PORTABLE SHIPBOARD OCEAN LIDAR

A collaboration among scientists & engineers at Old Dominion University's Department of Ocean & Earth Sciences and Department of Physics and Nalu Scientific, LLC, Honolulu HI.

Ocean lidar provides active remote sensing of the depth distribution and abundance of:

- **Suspended Particles**
 - Phytoplankton, coccoliths & biogenic particles
 - Suspended sediments
 - Fish schools
 - Gas Bubbles
- **Dissolved organic matter**
- **Day or night**

Deployable above or below the water on:

- **Surface vessels**
- **Underwater vehicles**
- **Moored platforms**

Depth resolved information compliments passive remote sensing.

Supports algorithm development for airborne and spaceborne systems.

Financial support provided by:

- **Virginia Research Investment Fund**
- **NOAA Phase I and II SBIR**
- **NASA**



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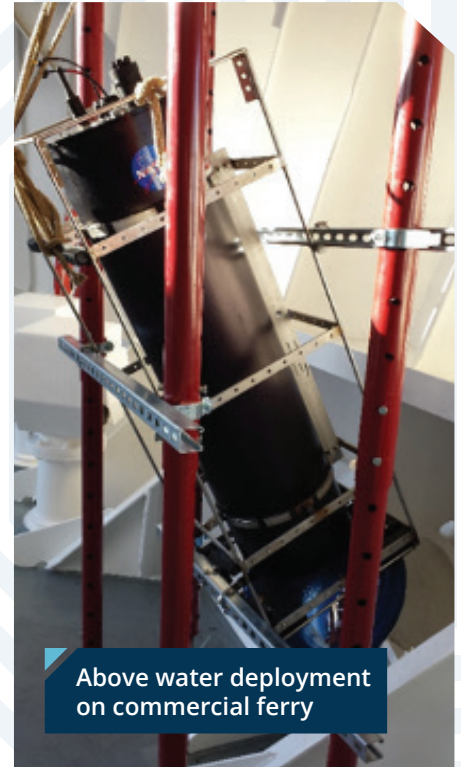
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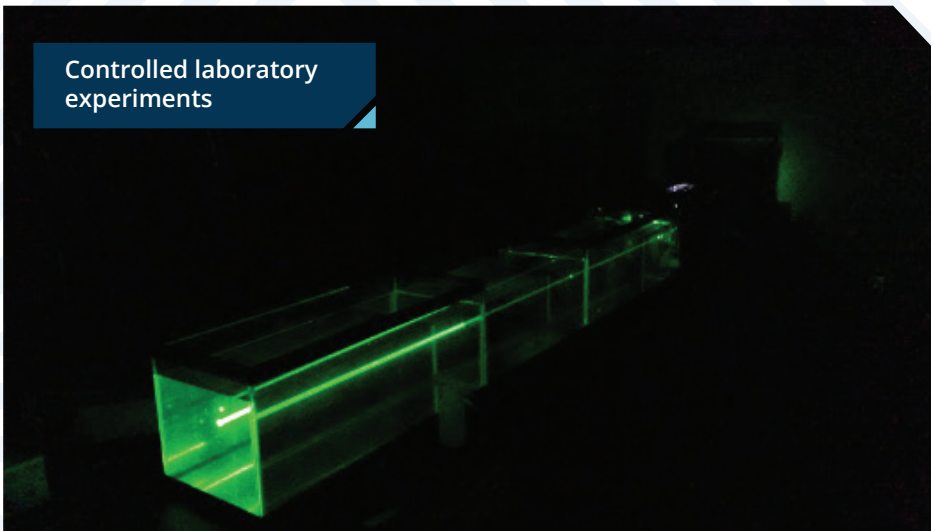
Below water deployment
on ODU R/V *Fay Slover*



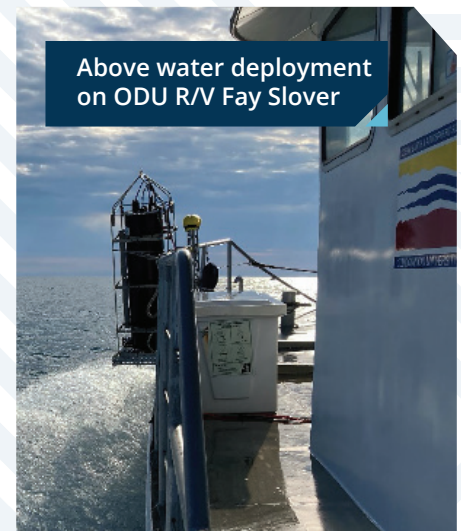
Above water deployment
on R/V *Endeavour*



Above water deployment
on commercial ferry



Controlled laboratory
experiments



Above water deployment
on ODU R/V *Fay Slover*



For more information, contact:

Richard Zimmerman: rzimmerm@odu.edu

Charles Sukenik: csukenik@odu.edu

Victoria Hill: vhill@odu.edu

Isar Mostafanezhad: isar@naluscientific.com

Old Dominion University, located in Norfolk, is Virginia's forward-focused public doctoral research institution with approximately 23,500 students, rigorous academics, an energetic residential community and initiatives that contribute \$2.6 billion annually to Virginia's economy.