



# 2019 Operational Highlights

## A glimpse into 2020

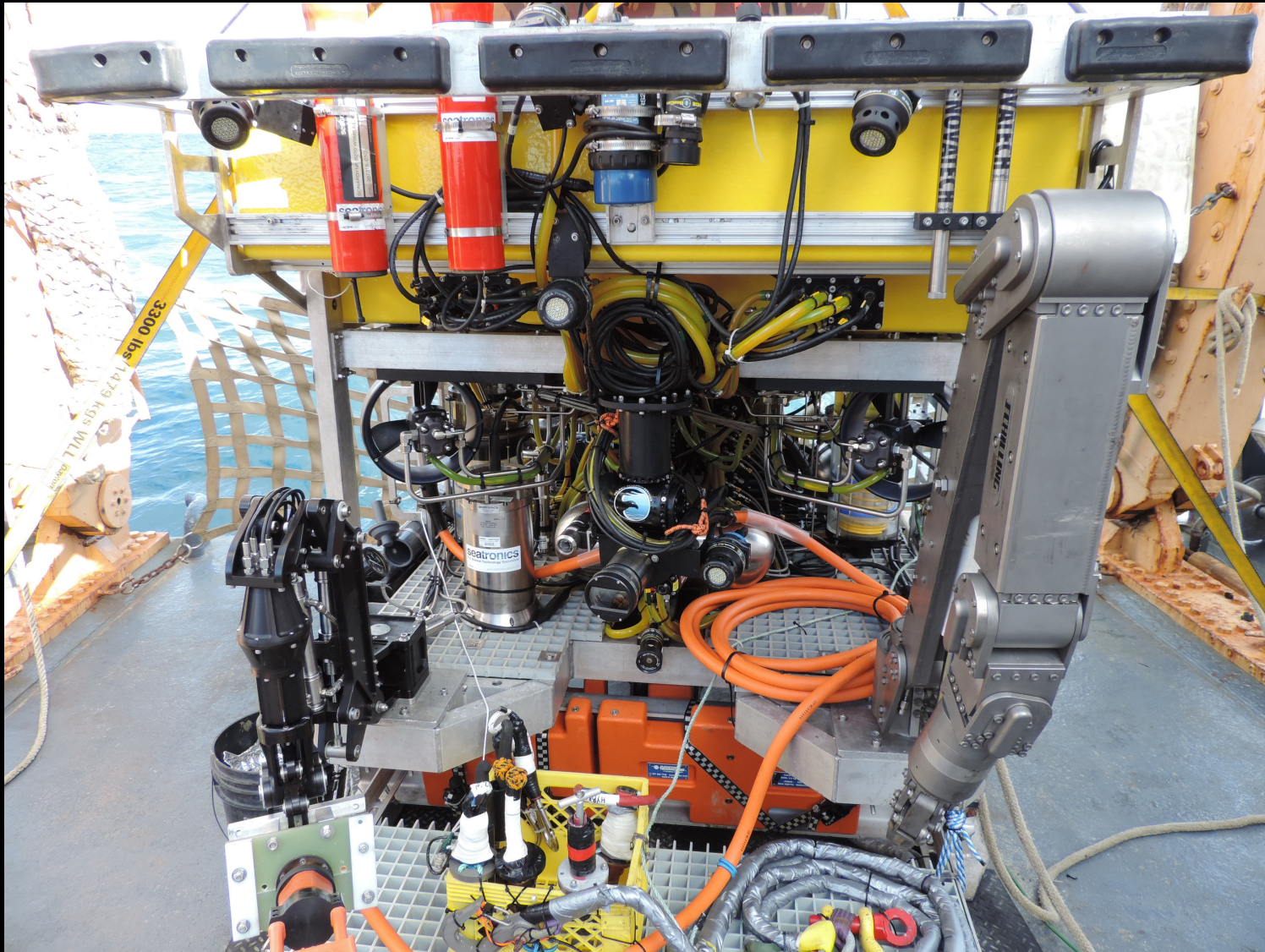
*Presented by Edward R. Cassano – CEO*

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# PRS Deep-sea ROV Odyssey

- Work/Science/Exploration Class 6000-meter ROV
  - Support environmental documentation
  - Precision science sampling
  - Ocean Observatories - construction and maintenance support
  - Survey quality sub-sea positioning and data acquisition





7-thrusters for precise movement

Multiple manipulators – 7x & 5x base configuration

HD/Camera on hydraulic pan and tilt [4K available] 8 – 5000/10000 lumen LED lights

100 kg base payload 1814 kg thru frame lift  
Dual load releases – 907 kg swl : flexibility

Hydraulic science skid, lifting bridge skid, front porch

Science sensor integration – legacy, standard, custom – “Plug and Play”



# 2019 Highlights

- GoM - Deployment of “Back-pack” Benthic Lander’s (USM - Hamden)
- GOM - Archeological surveys of two unknown, copper clad shipwrecks (USM/BOEM - Hamden/Damour)
- Collection of pristine oil samples from GC600 – GOM (CCU - Peterson)
- Several multi-week maintenance expeditions for Ocean Networks Canada
  - Venus and Neptune Observatories



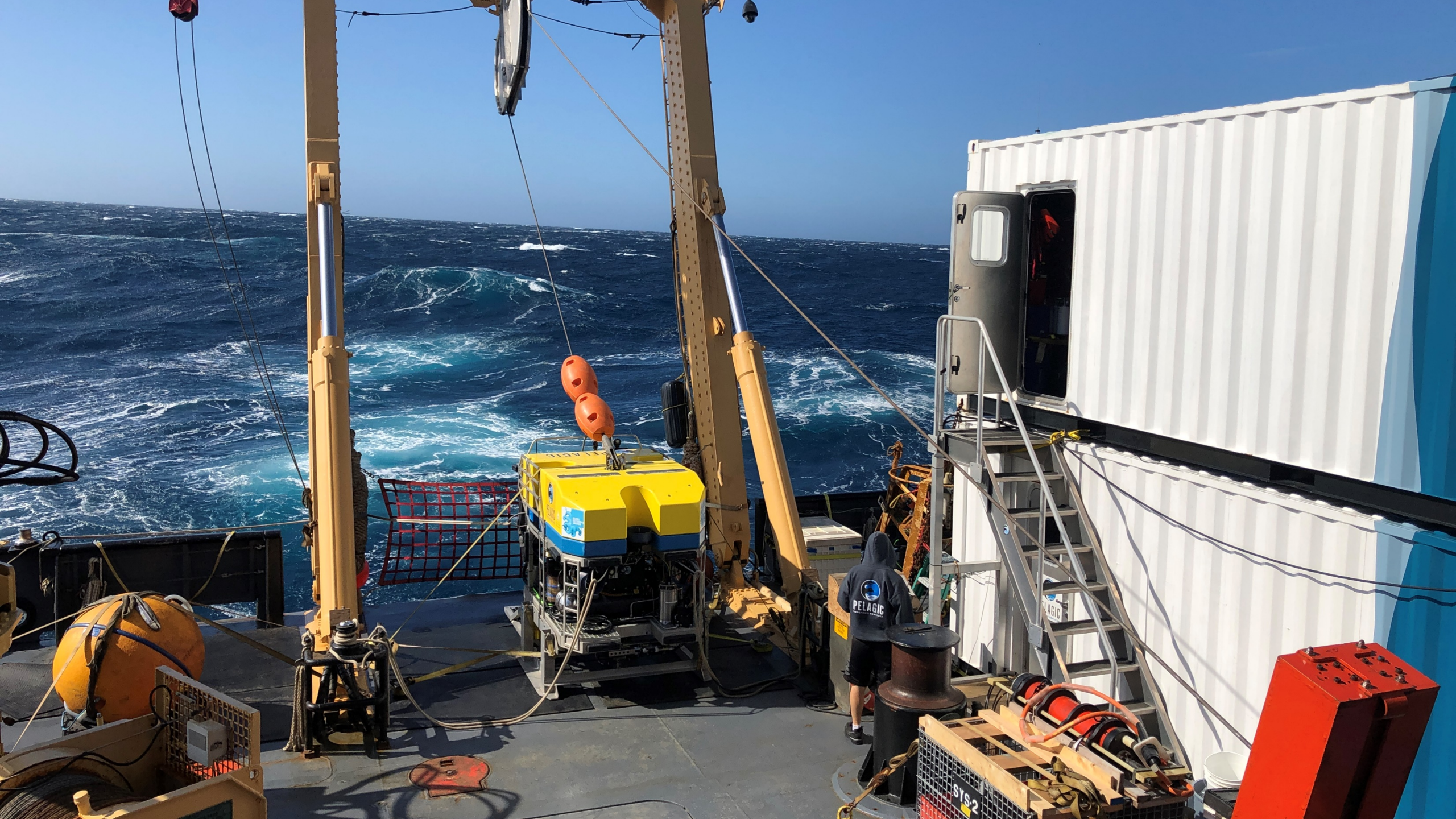


MEGA PLUME  
Dive 01  
09-01-2018  
18:23:46  
2722.18989°N  
09034.23958°W  
Heading 32.7  
Depth (m) 118





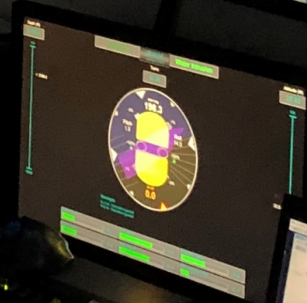
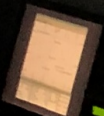
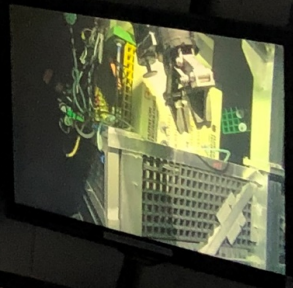
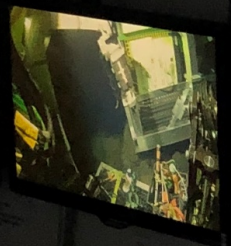
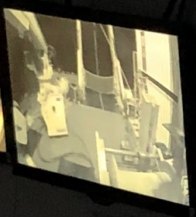
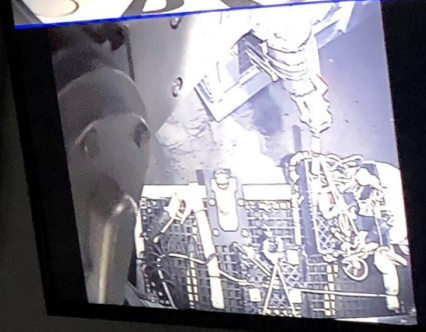
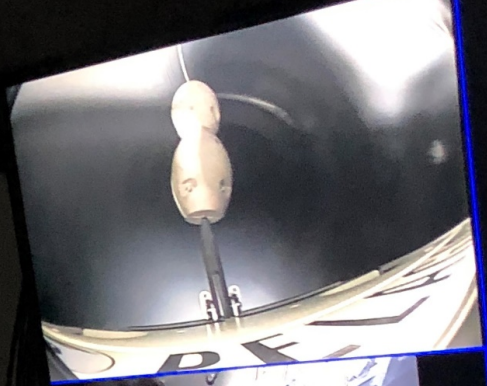




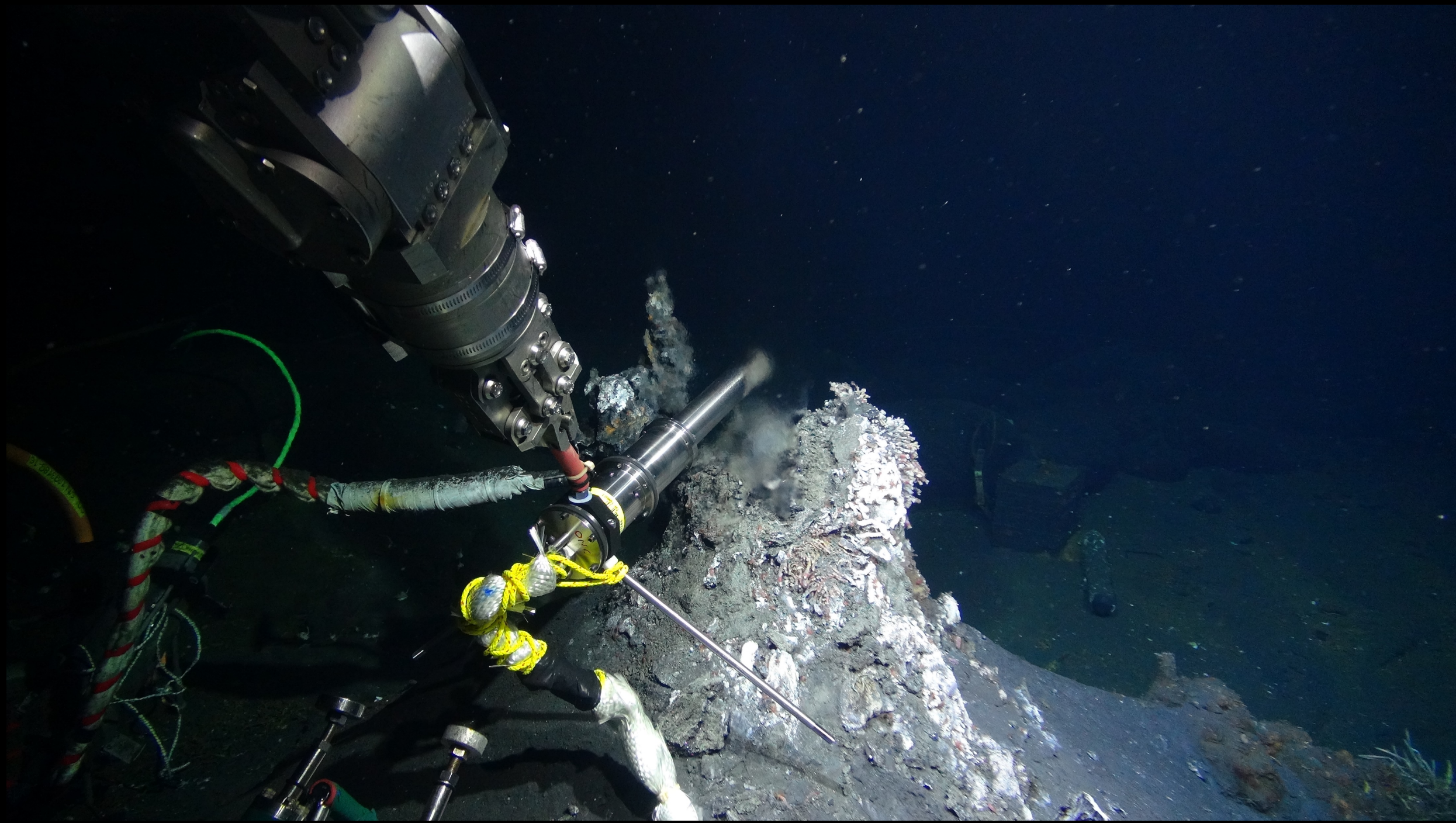


# Standard ONC Platform Deployment





PHASIS



# Illuminating the Cascadia Plate Boundary Zone and Accretionary Wedge with a Regional-Scale Ultra-Long Offset Multichannel Seismic Study

PI: Suzanne Carbotte (LDEO, Columbia University)

Co-PIs: J. Pablo Canales (WHOI), Shuoshuo Han (UTIG)

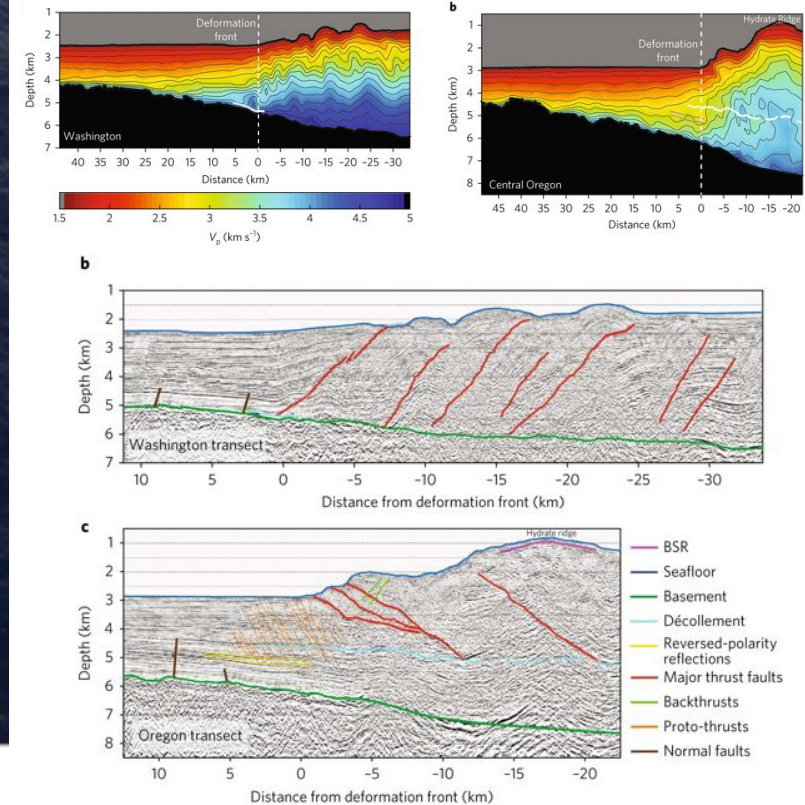
**GOAL:** To acquire modern marine seismic reflection data spanning the entire Cascadia Subduction zone to image how the geologic structure and properties of the subduction zone vary both along and across the margin.



**R/V M. Langseth. Cruise: June 1, 2020-July 10, 2020**

- Long-streamer (15 km), 12.5-m hydrophone spacing

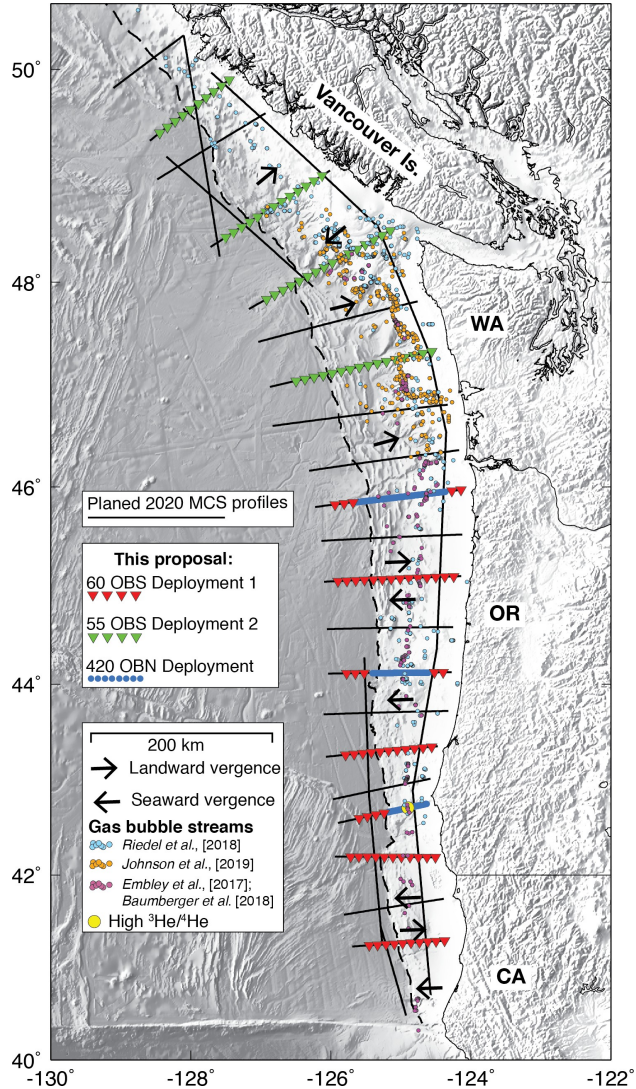
- 6,600 cu.in. airgun array (shot interval: 15 s).



# OBN Deployments

Ocean Bottom Nodes from InApril.

Small, not buoyant. 0-3,000 m. Deployed/recovered with ROV.



OBN Spacing: 500 m

R/V Oceanus+Pelagic ROV Leg 1, May 3-16: Deploy 320 OBNs

R/V Oceanus+Pelagic ROV Leg 2, July 12-25: Recover 320 OBNs

~ 320 InApril Nodes:

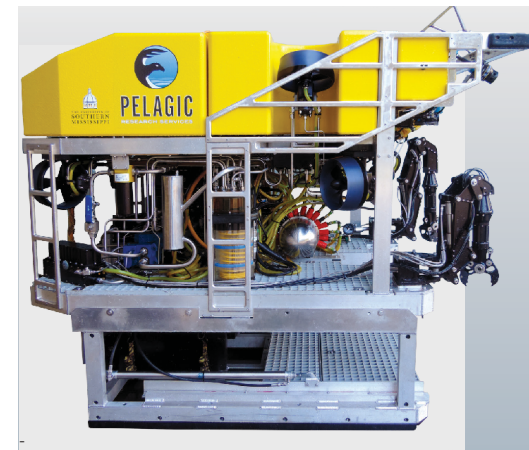


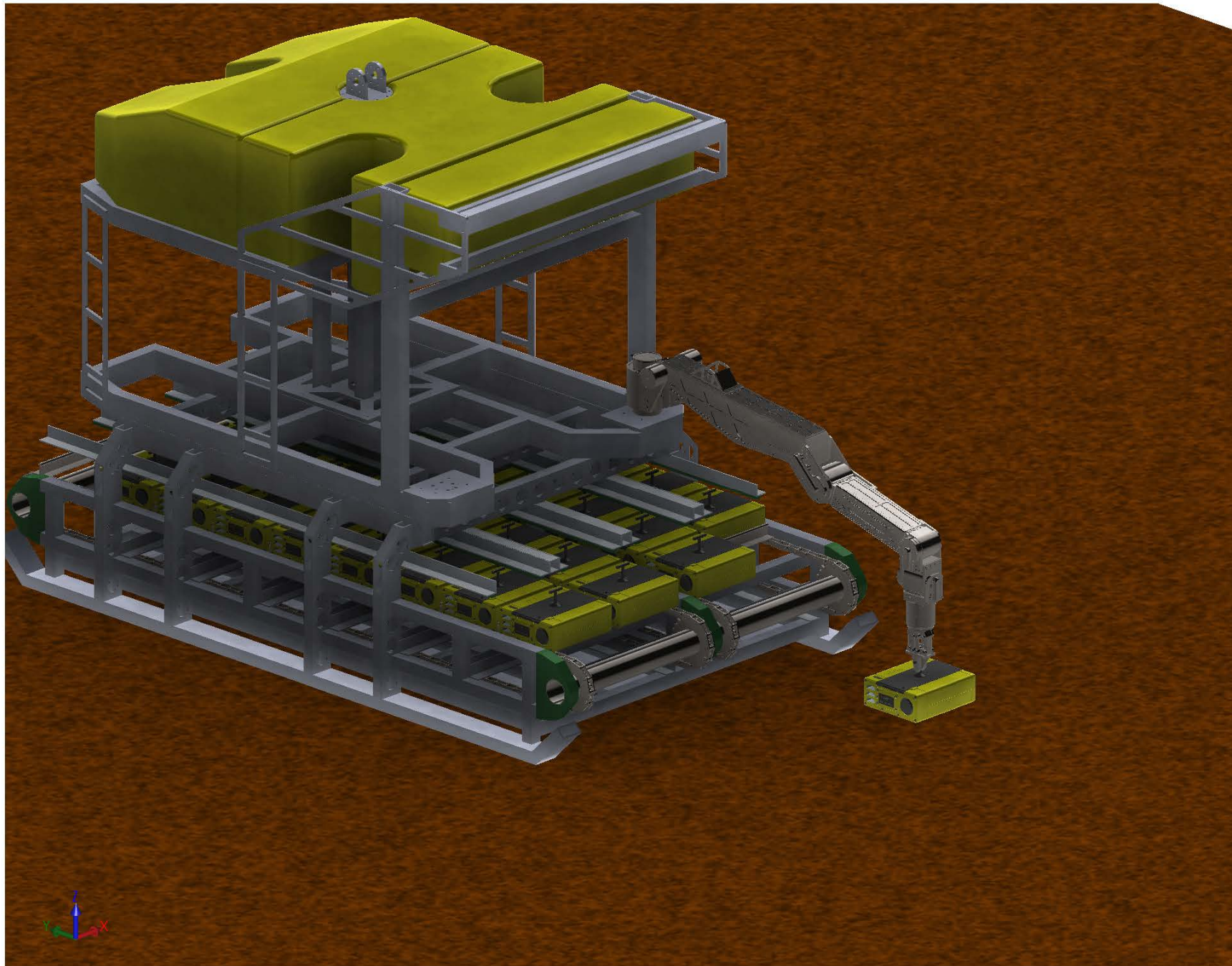
330mm x 289mm x 115mm  
21 kg (9.5 kg in seawater)



Video  
Deployment

Video Recovery







# PELAGIC

RESEARCH SERVICES

**Thank You!**

