COVIS (Cabled Observatory Vent Imaging Sonar)
PIs: Karen Bemis, Tim McGinnis, Aaron Marburg, Guangyu Xu, Darrell Jackson, Anatoliy Ivakin, Leonid Germanovich
June - July 2019 – ROV Jason on R/V Atlantis

Field Operations

• Legs 2 - AT42-12 cruise – June 17
  • Recovery of COVIS with subsequent repair of frayed cable (J2-1156: 5.5 hours dive time)
    • OOI, Jason & ship crew did a great job supporting the recovery. Thanks to all for patience with the procedure to determine COVIS orientation.
  • Recovery of two 1 m tall, self-logging thermistor arrays during CamHD dive (J2_1155: 0.5 hours added dive time)
    • THANKS to Ben Brand, OOI, and Jason crew for making the thermistor array recovery possible

• Leg 4 - AT42-12 cruise – July 5 - 6
  • COVIS was (re-)deployed at ASHES vent field (J2-1195: 5.5 hours dive time)
    • Again a great job from OOI, Jason, and ship crew.
  • Supporting measurements (J2-1196 - 1197: 18.5 hours dive time)
    • Recovery of one 1 m tall, self-logging thermistor array
    • In situ temperature and flow rate measurements using a 2 m tall thermistor array, the JASON/NDSF high temperature probe, and a reference stick
      • THANKS to Jason crew for extra efforts in recovery the thermistors that fell off the arrays during the initial attempt
    • Deployed one 1 m tall thermistor array

Thermistors falling out of array
Titanium “toilet brush” used to hold thermistors in probe socket on ascent
1-m thermistor array on station
Mid-way during COVIS recovery

COVIS on the seafloor
COVIS Operations June - July 2019
Temperature and Flow Measurements at ASHES

Focused Discharge: Phoenix, Site 3B

Inferno: spiky chimneys and shaggy mass

Site Map
COVIS Data Products

- Imaging Mode – grids, 3D images, near vent intensity variations
- Diffuse Mode – grids, maps, diffuse area coverage
- Animations!

Diffuse Flow Area (m$^2$)

Month/Year

- Coming soon to a website near you