ROV *Lu'ukai*
Deep CCZ Survey
ALOHA Cabled Observatory

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Washington DC
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ROV *Lu‘ukai* 2018

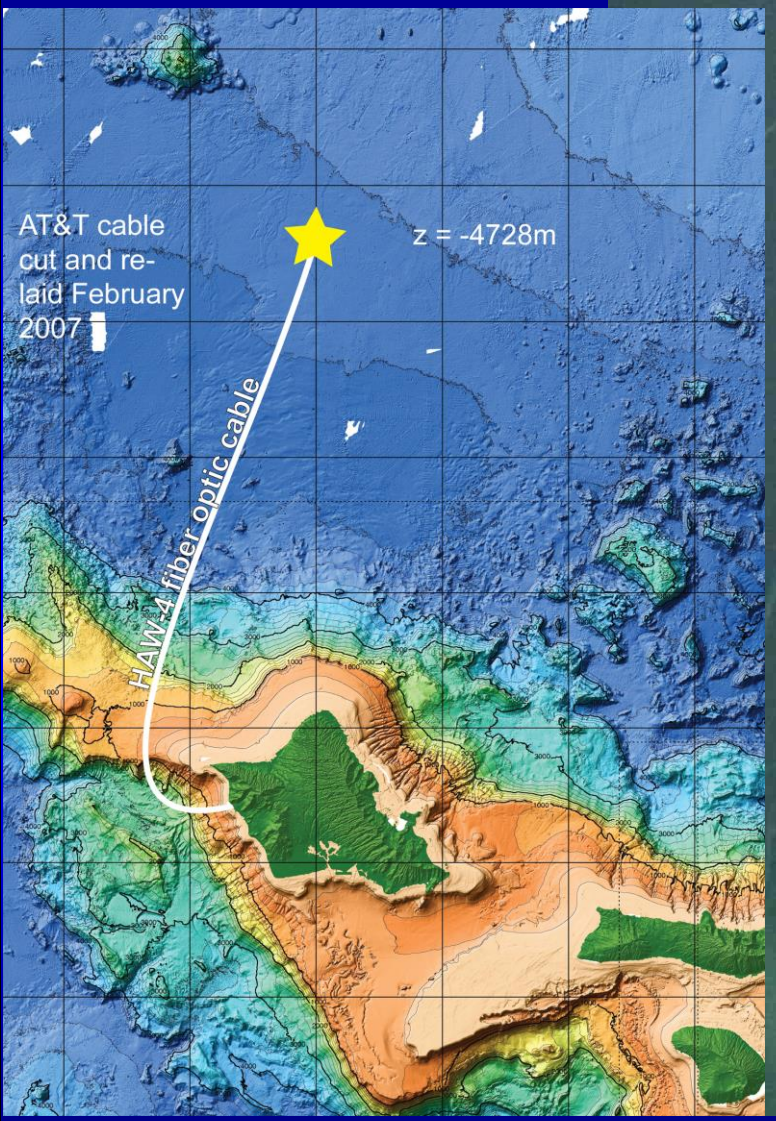
- February – Test dives
  - 5480 m, 4.4 h on bottom
- May – Deep CCZ
  - 12 dives, max 5240 m, max bottom 9.9 h, 15.9 h total
- June – ACO
  - 3 dives, 4728 m, max bottom 16 h, 22.7 h total Dive 100
- December – PMRF Kauai
  - 4 dives, shallow water surveys 350 – 36 m, 50 h submerged, 17 km transects.

ROV *Lu‘ukai operational*

UH ROV *Lu'ukai* - Sea Diver

- On Deep CCZ cruise, May 2018

Station ALOHA



ALOHA Cabled Observatory

Jason - 2 Nov 2014

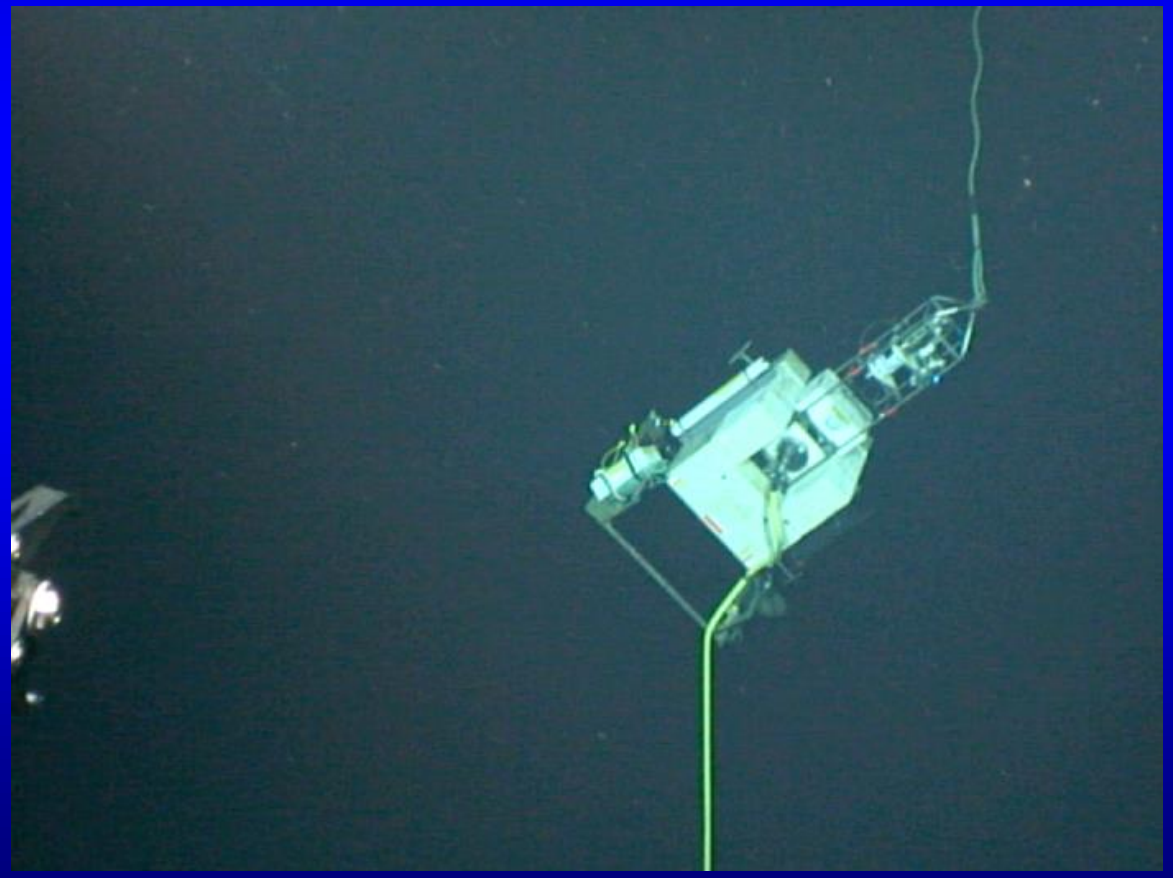
4728 m – Deepest Internet and power on the planet

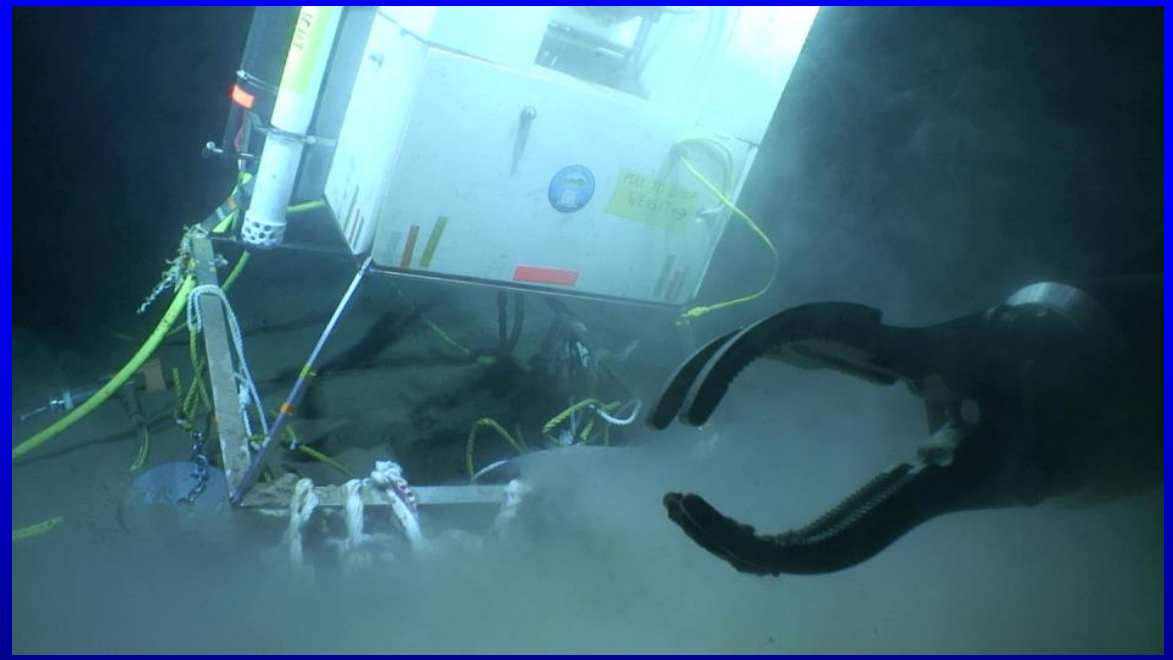
ACO June 2018

- Deal with Basic sensor package 2 (BSP2)
- Connect LIGHT4
- Deploy and connect
  - BSP3 (icListen)
  - SN1 (secondary node)
- Recover BSP1

Deal with BSP2

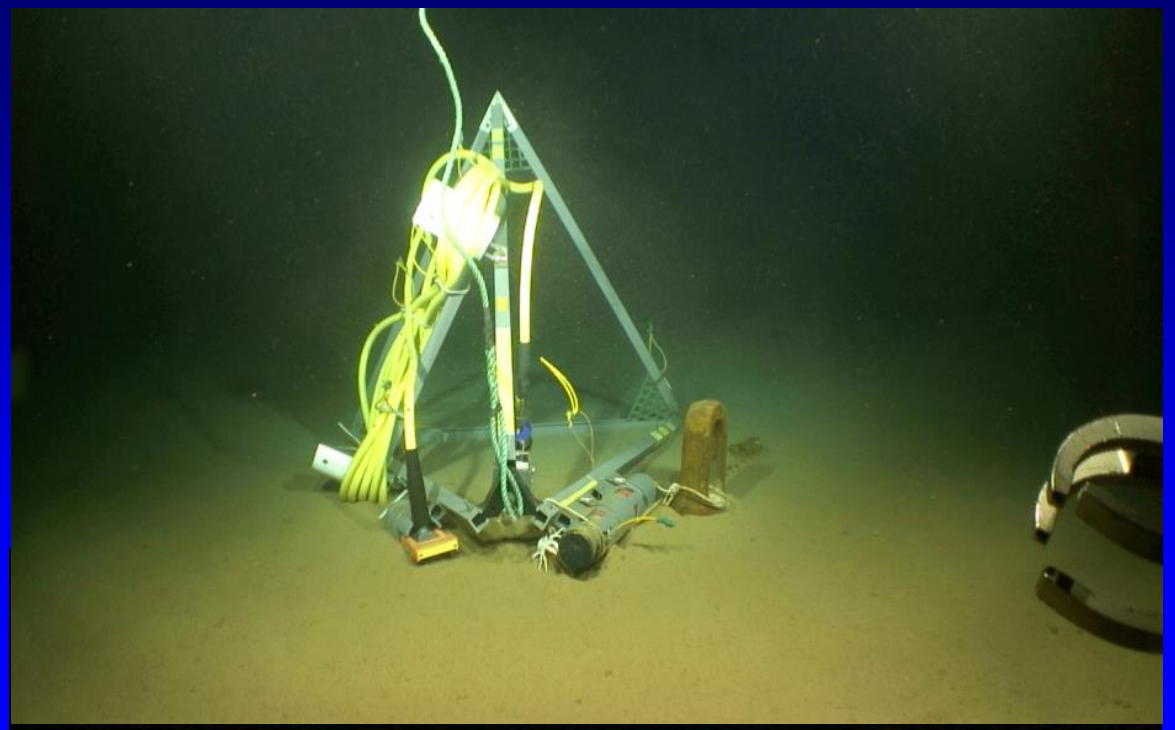
- Corrosion of bolt/nut/washer holding recovery drop weight





Connect LIGHT4

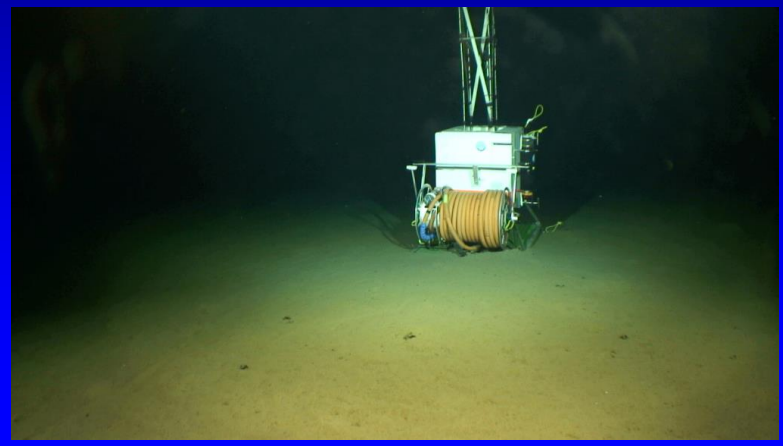
- Had been left on bottom in September 2015

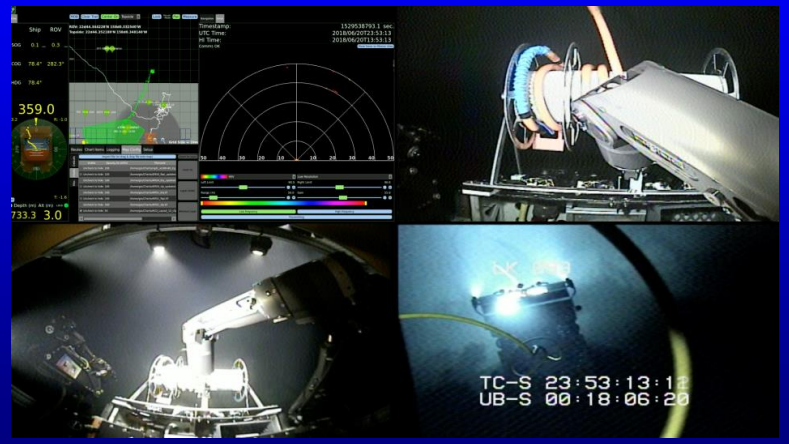


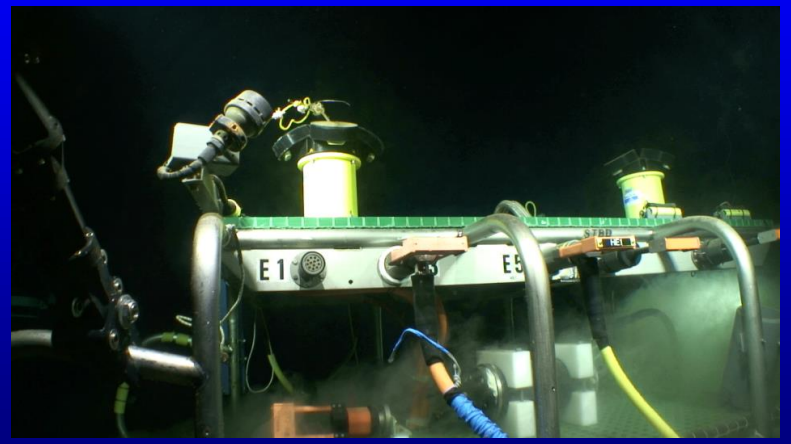
http://aco-ssds.soest.hawaii.edu/cam1vid.html

Connect BSP3

- icListen hydrophone
- Donated by OceanSonics

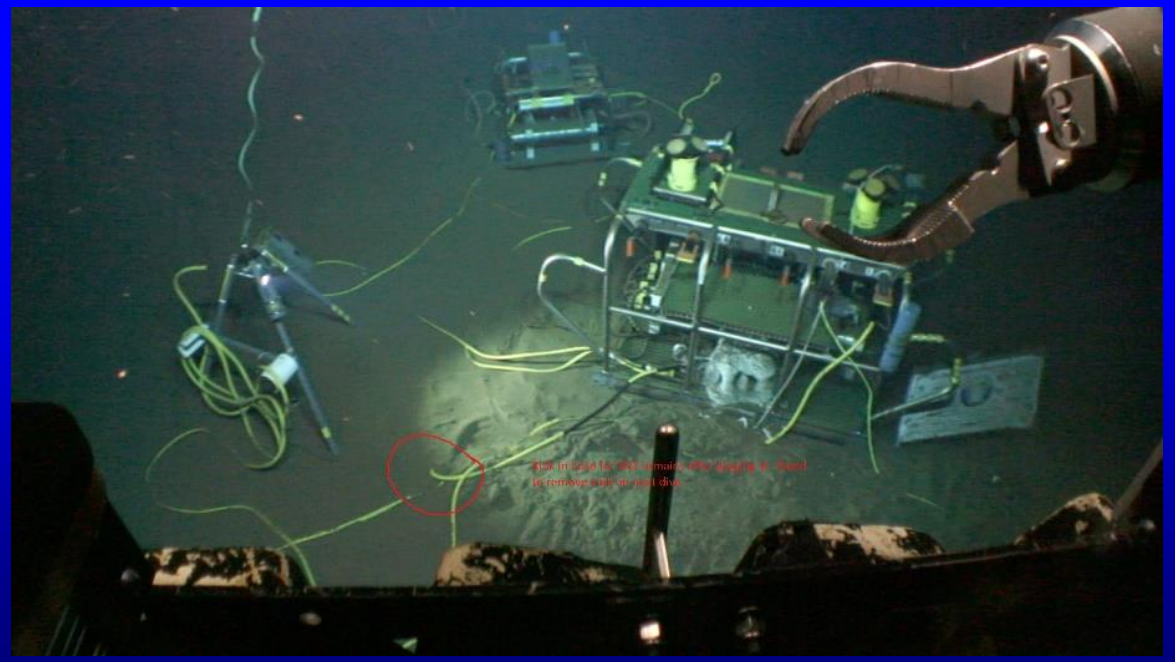






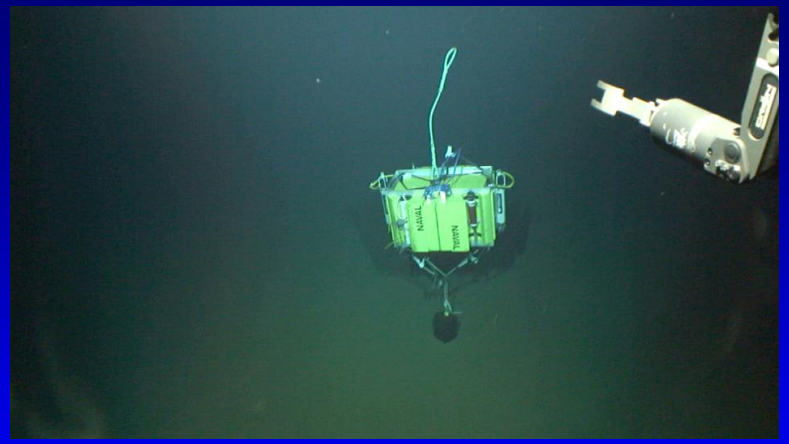
Connect SN1

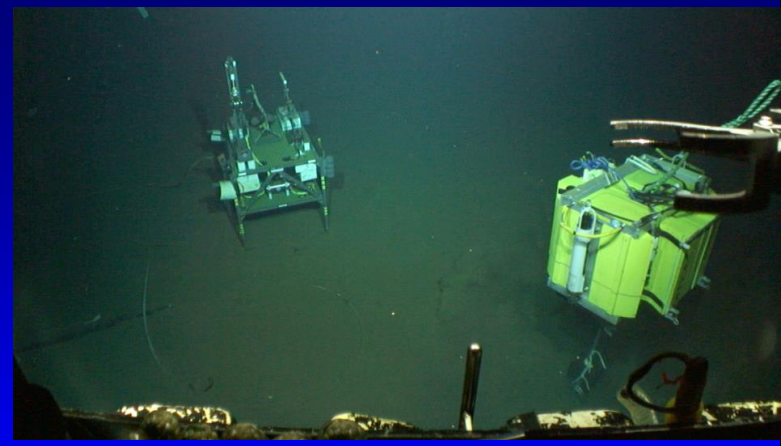
- Secondary Node 1
- Additional 4 ports

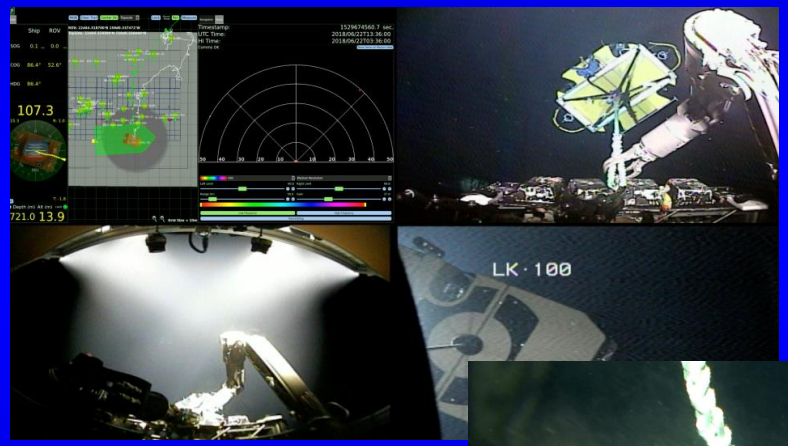


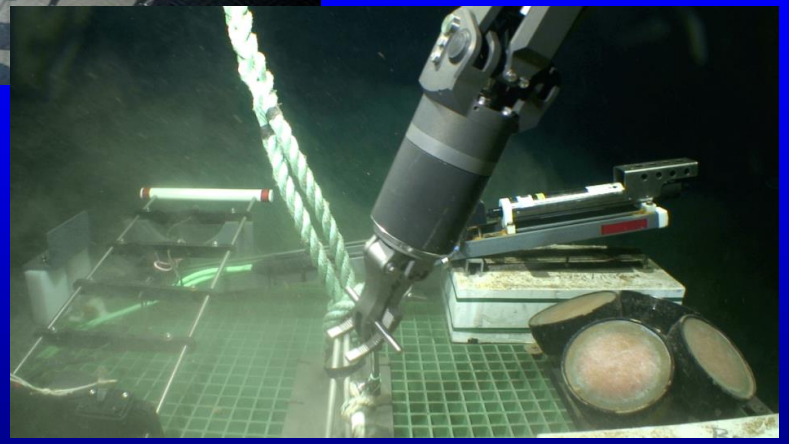
Recover BSP1

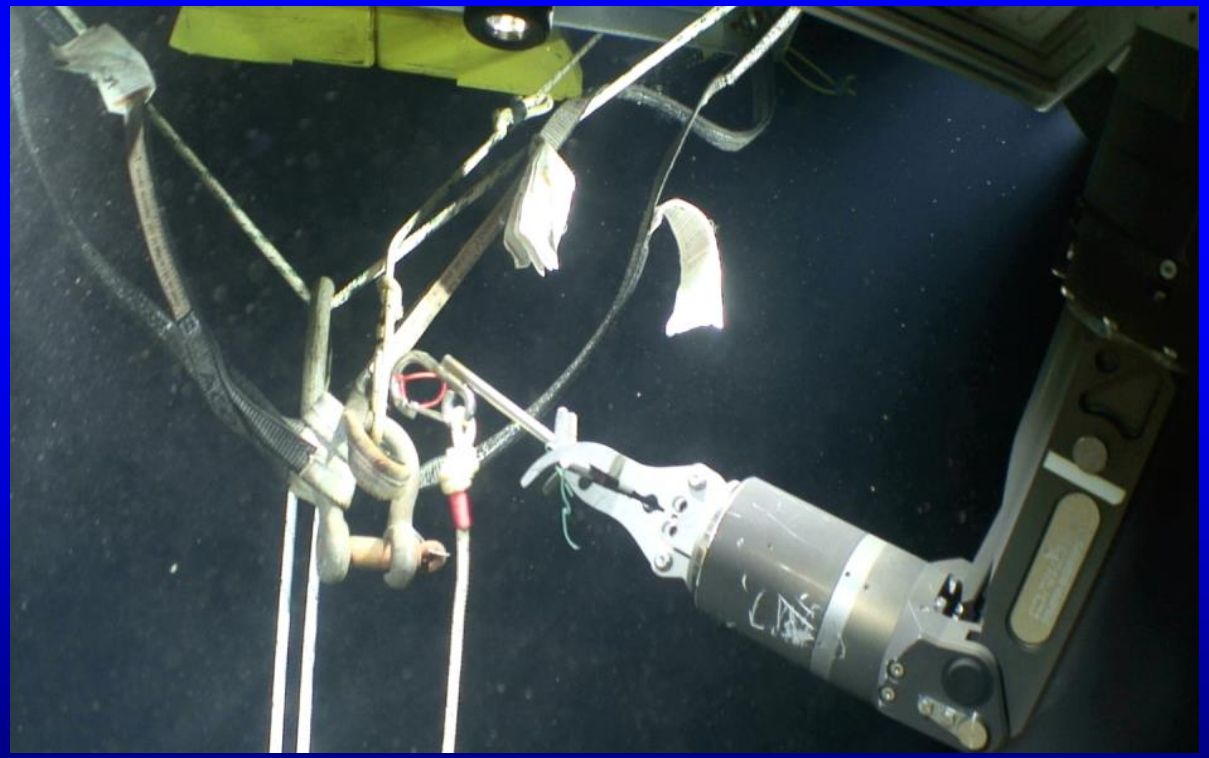
- Using ELEVATOR











Deep CCZ Expedition

- **Exploration of biodiversity and ecosystem structure on seamounts in the western CCZ**
- J. C. Drazen, M. Church, T. Dahlgren, J. Durden, A. Glover, E. Goetze, A. Leitner, C. R. Smith, and A. Sweetman
- https://oceanexplorer.noaa.gov/explorations/18ccz/welcome.html
- May 2018