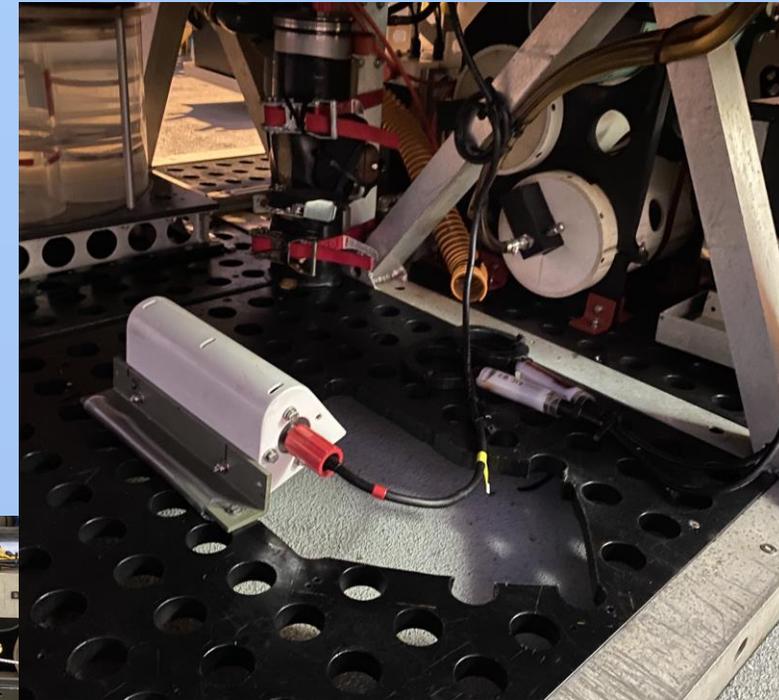


WHOI-MISO Deep-sea cameras on ROV *Jason* for RR2102

D. Fornari - WHOI
R. Parnell-Turner – SIO
T. Barreyre – U. Bergen
J. McDermott- Lehigh U.

(advantages of fixed focus, automated imaging)



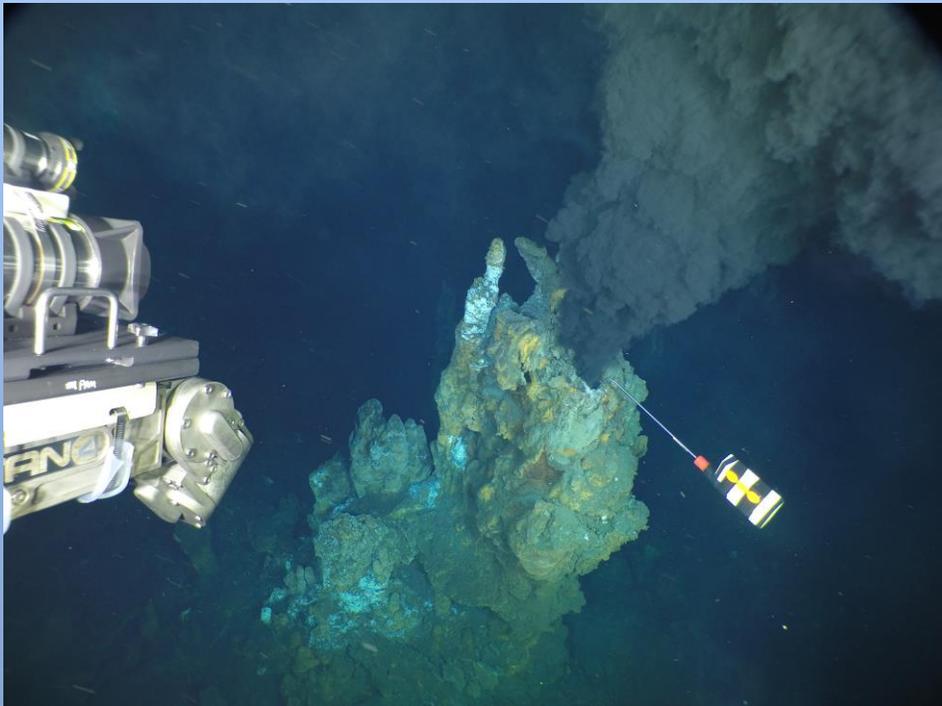
WHOI-NDSF *Jason* and *Sentry* Teams were extremely helpful in the implementation and setup of the various MISO cameras on the vehicles for RR2102.

Their efforts to think innovatively about improving vehicle imaging capabilities and willingness to experiment with new approaches are acknowledged and much appreciated.

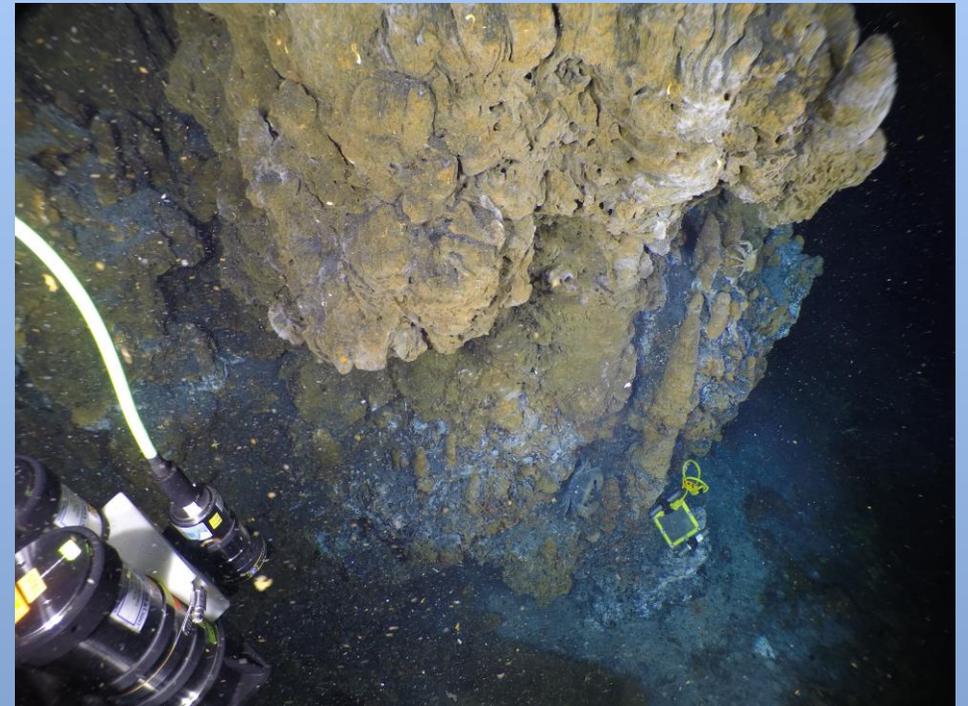
They contributed greatly to accomplishing the imaging components of the RR2102 Geology and Biology Teams' research objectives.

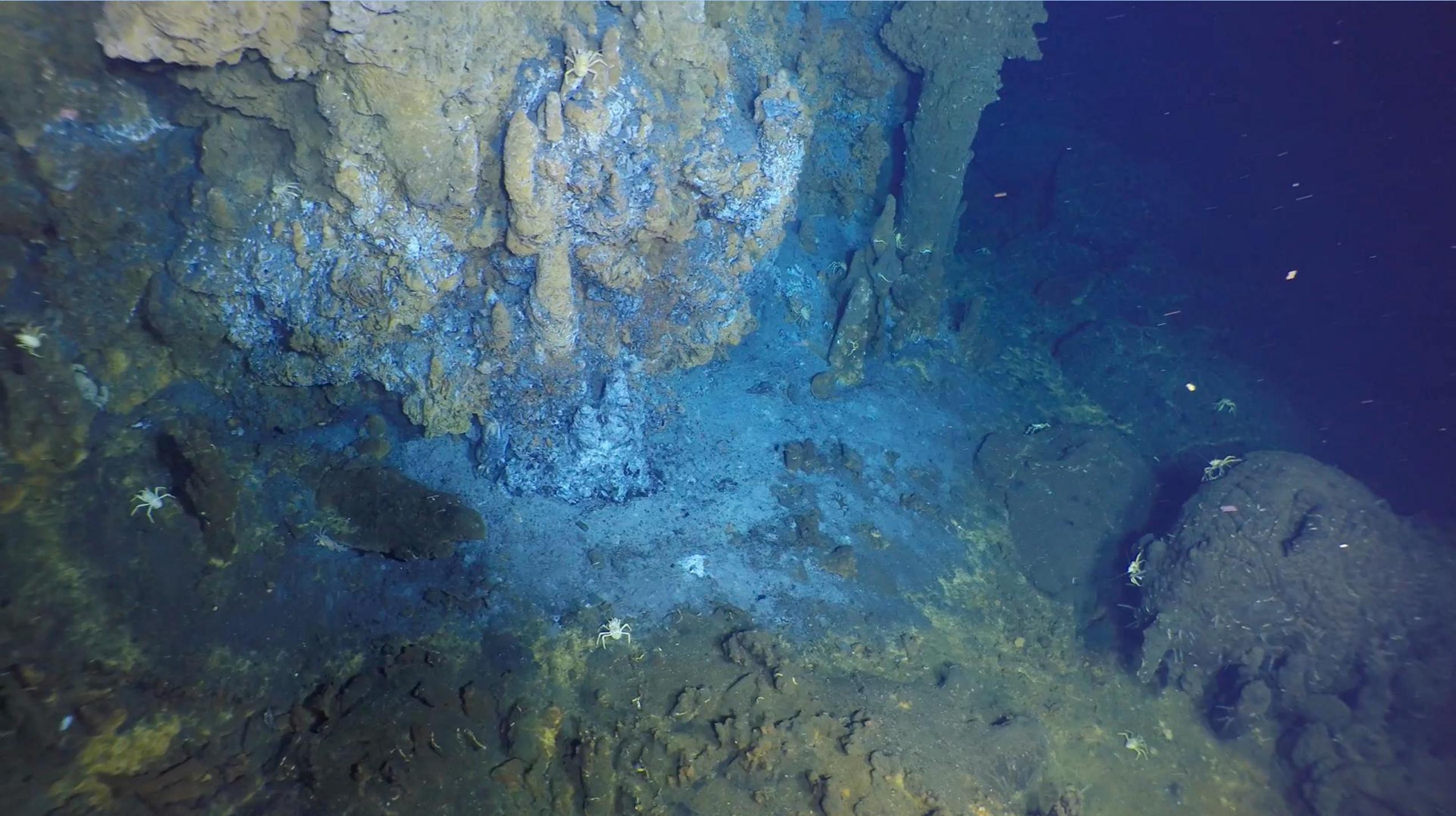
WHOI-MISO cameras RR2102 – Imagery Acquisition Totals

Total Brow 12MP Images	236,869	A HUGE thanks to Jyun-Nai Wu (SIO) for helping to manage and process the MISO camera imagery collected on RR2102
Total Down-looking 24MP Images	49,412	
Total Dual Manip 12MP Images	110,738	
Total 4k Dual Manip Videos	301	
Total Elevator 12MP Images	27,970	
Total Elevator 4k Videos	<u>137</u>	
Total Volume of MISO Imagery	5 TB	



**MISO
12MP
Brow-Cam**

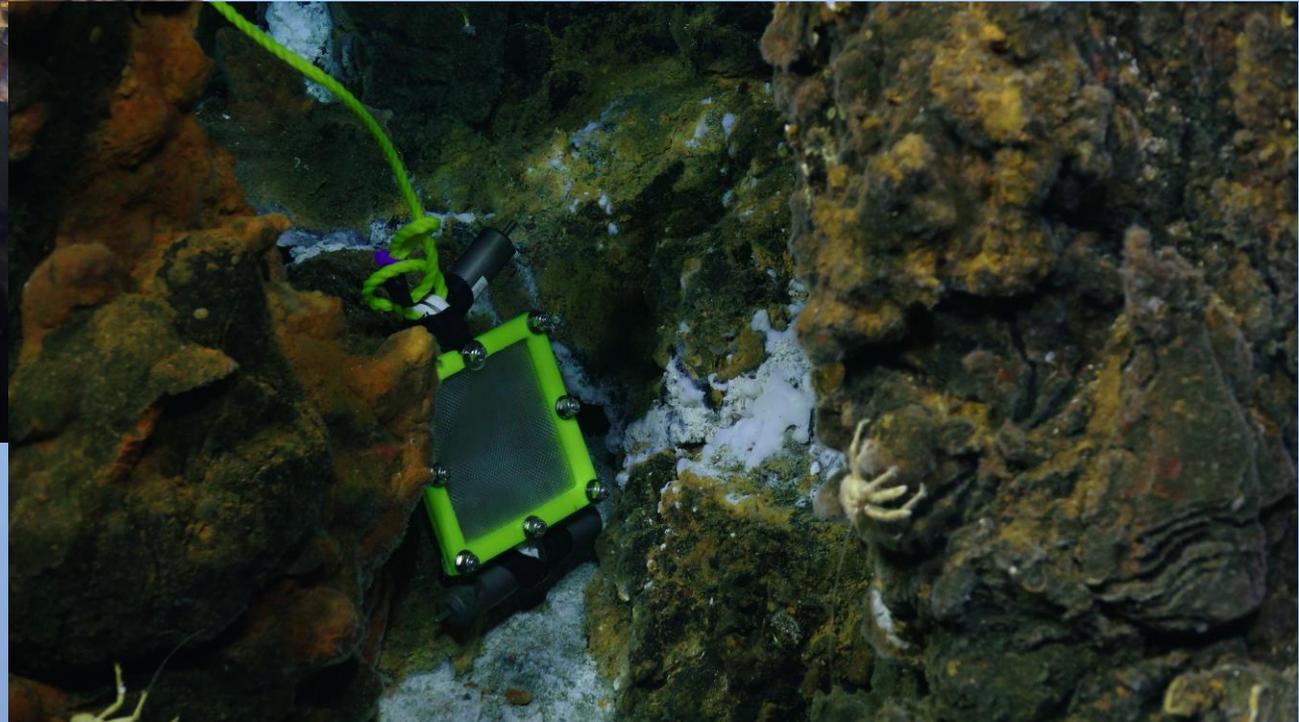




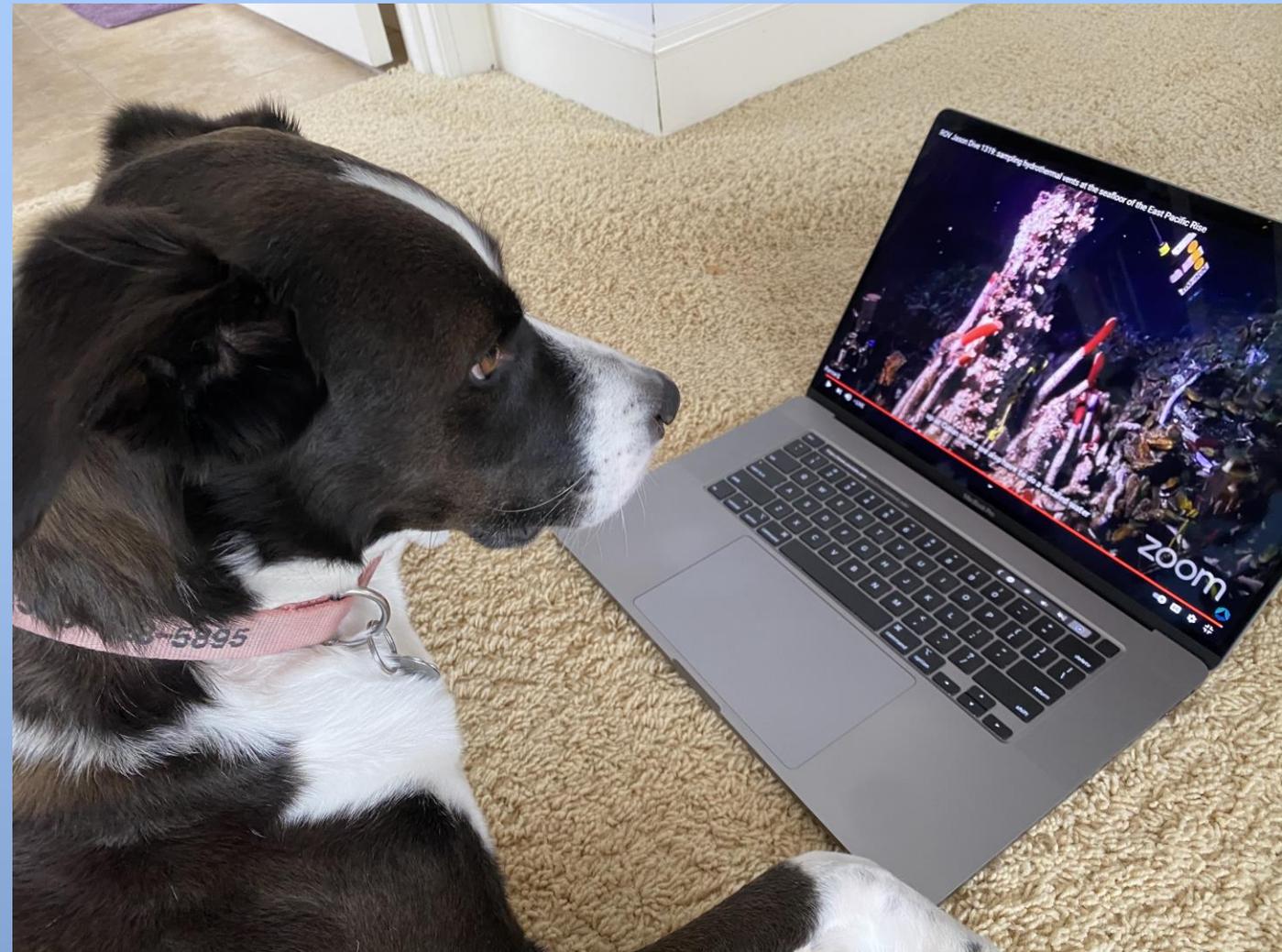


MISO-Manip 12MP
camera image
5 sec rep rate

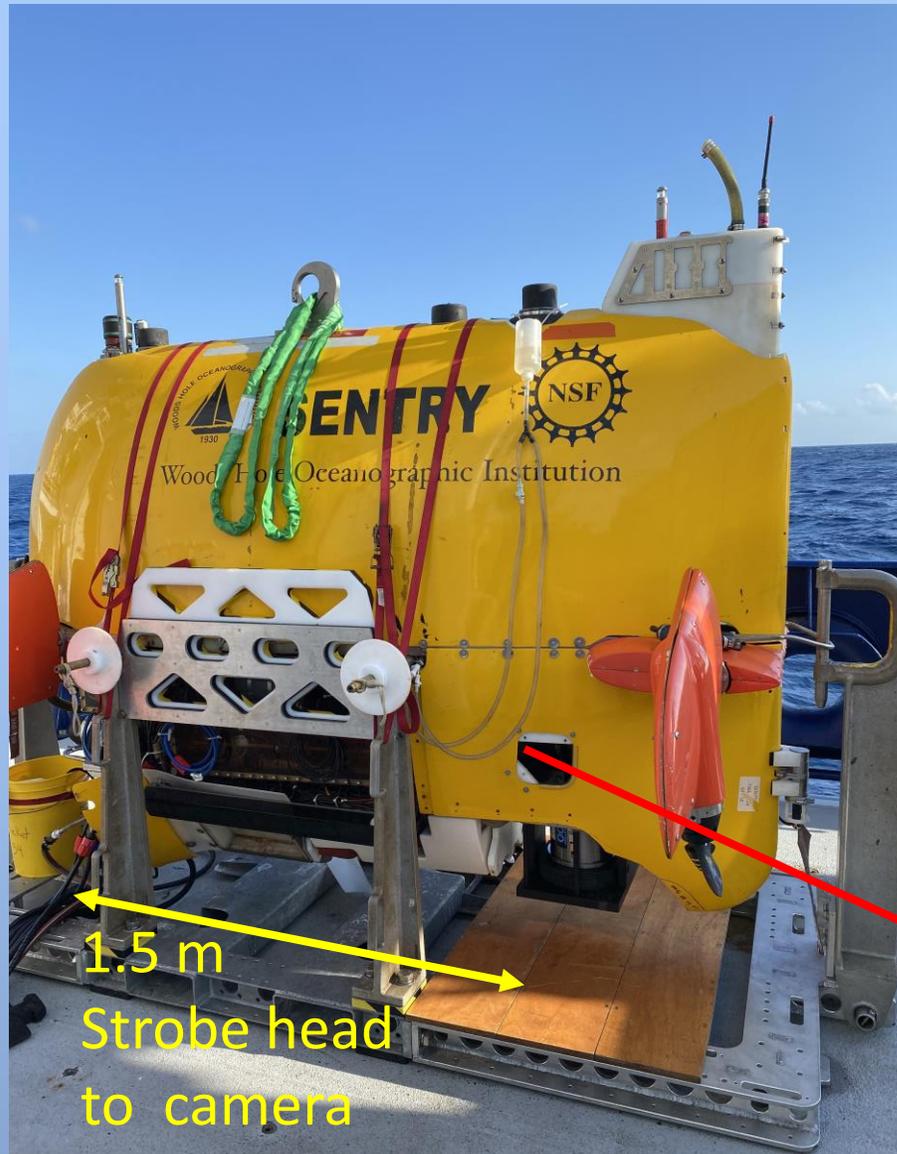
Sulis 4k video grab
zoomed in



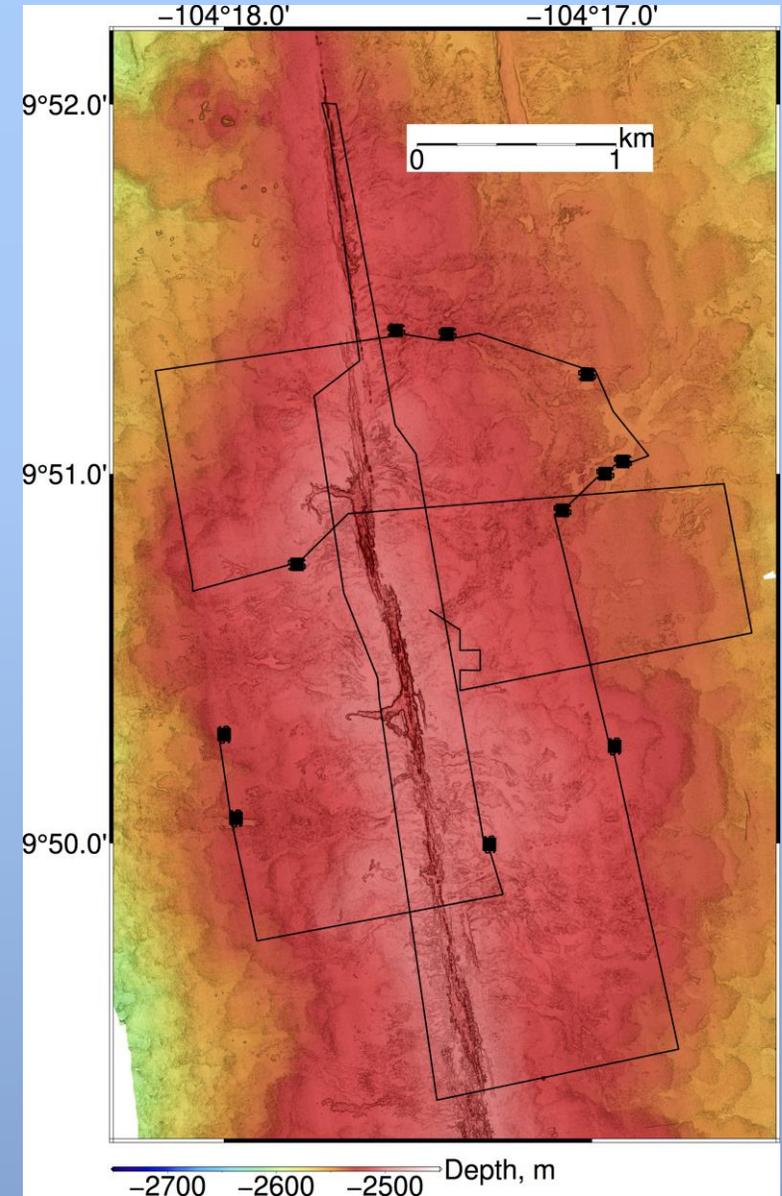
Everyone was watching the live feed from the *Jason* Sulis4k camera via Zoom, FaceTime and YouTube
Expanded Bandwidth a GREAT success

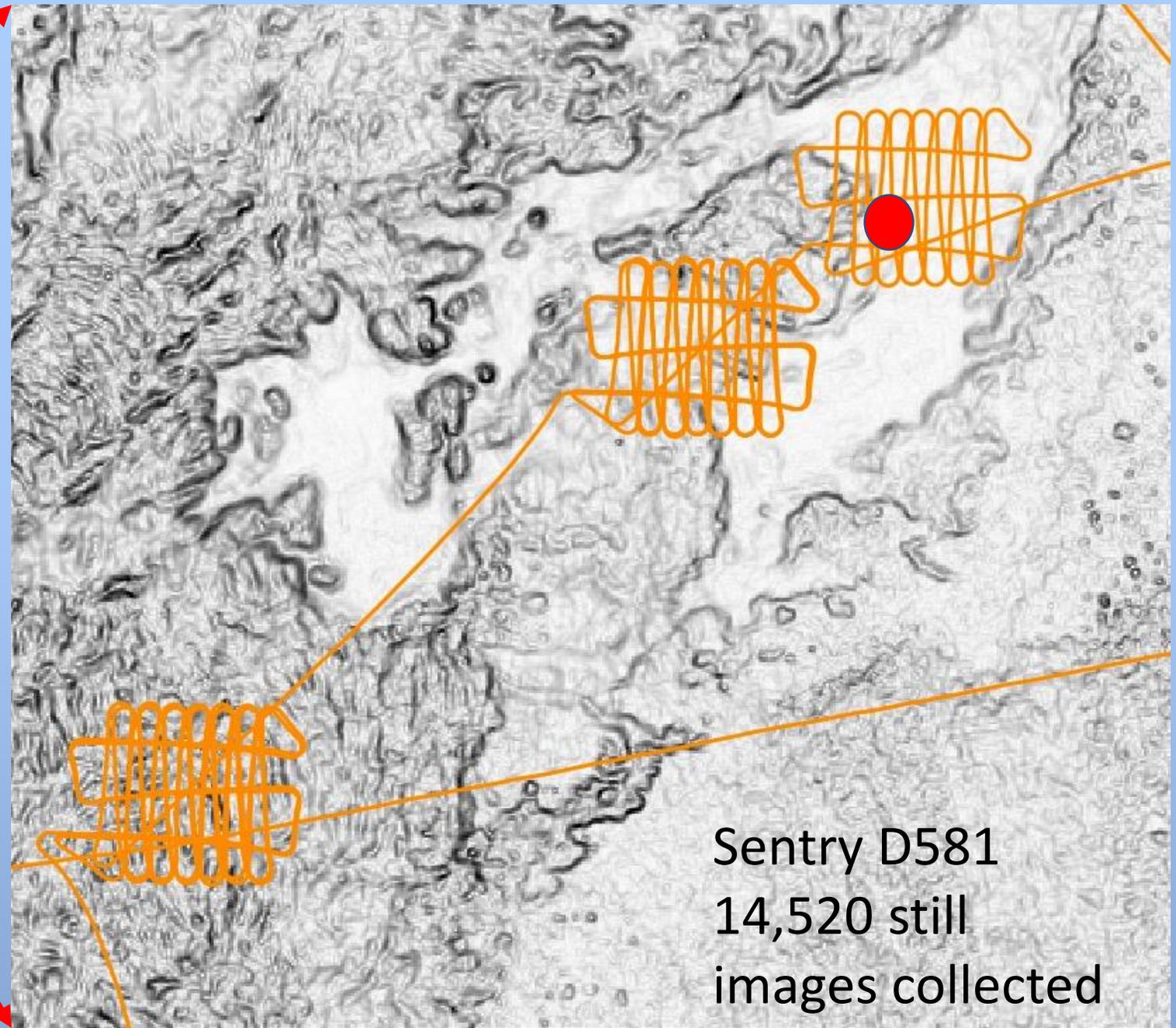
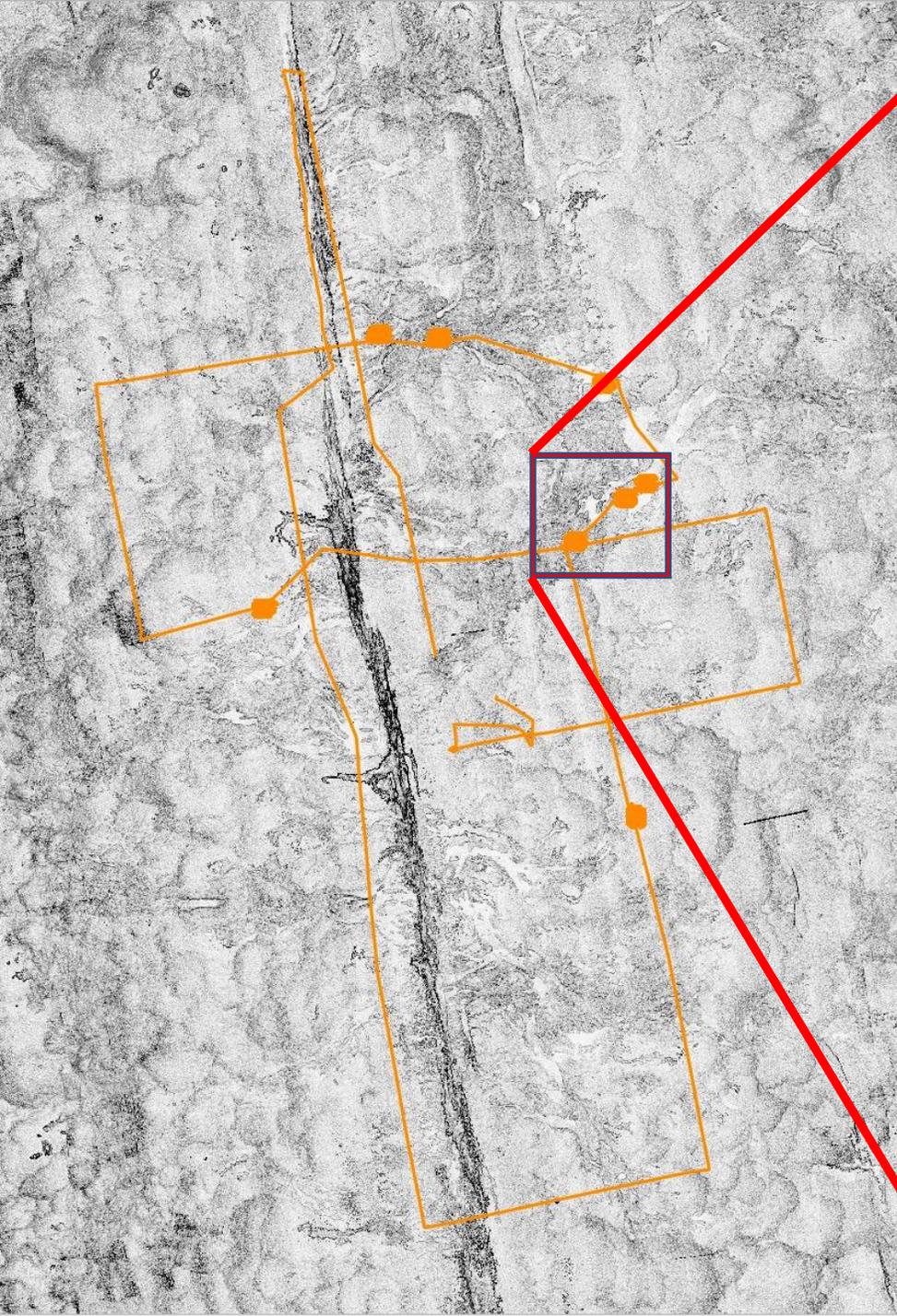


WHOI-MISO Deep-sea camera on AUV *Sentry* for RR2102 (24MP OIS still camera and upgraded 300 watt/sec strobe)

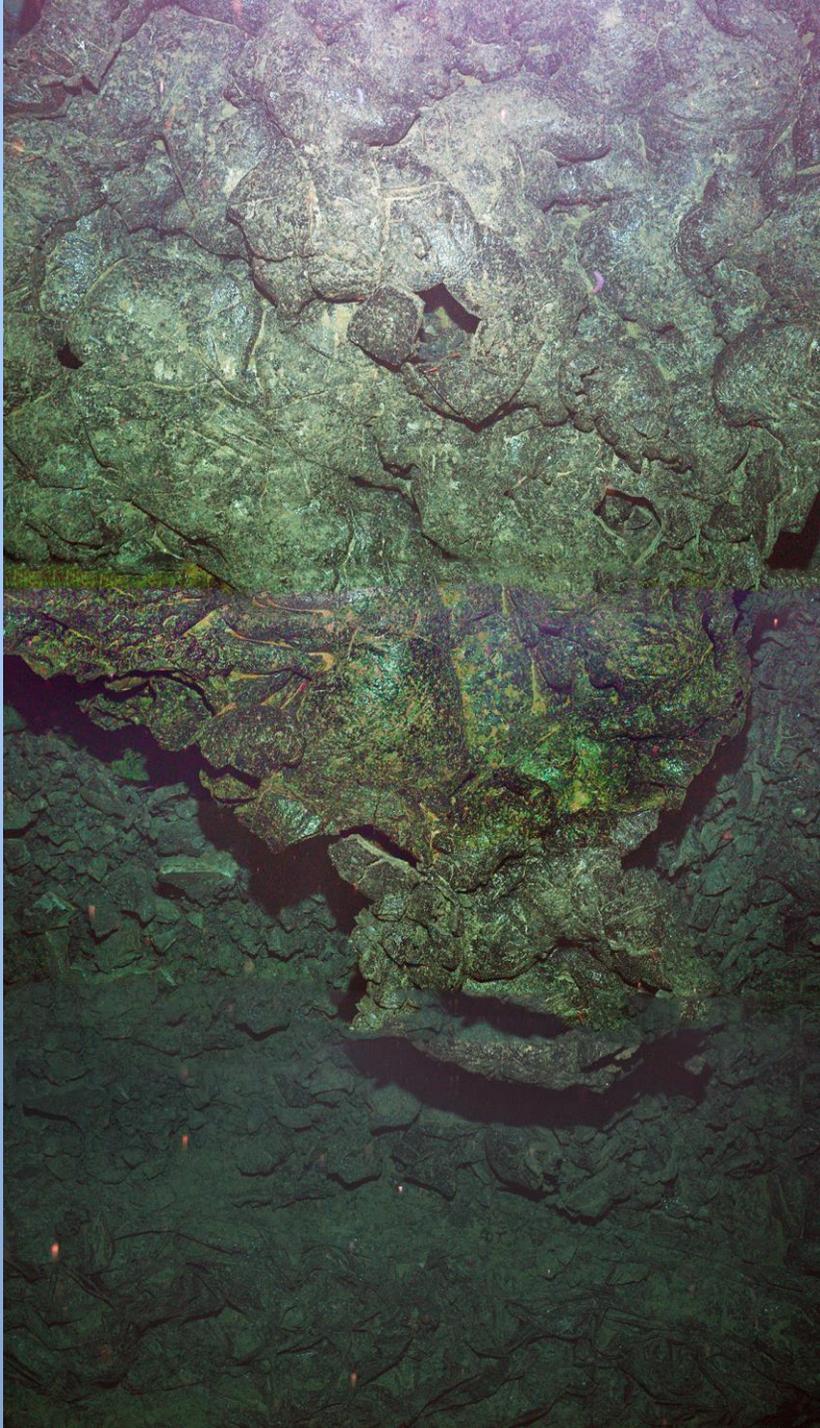


Sentry D581
5 sec rep rate
6 m alt
8 m track spacing



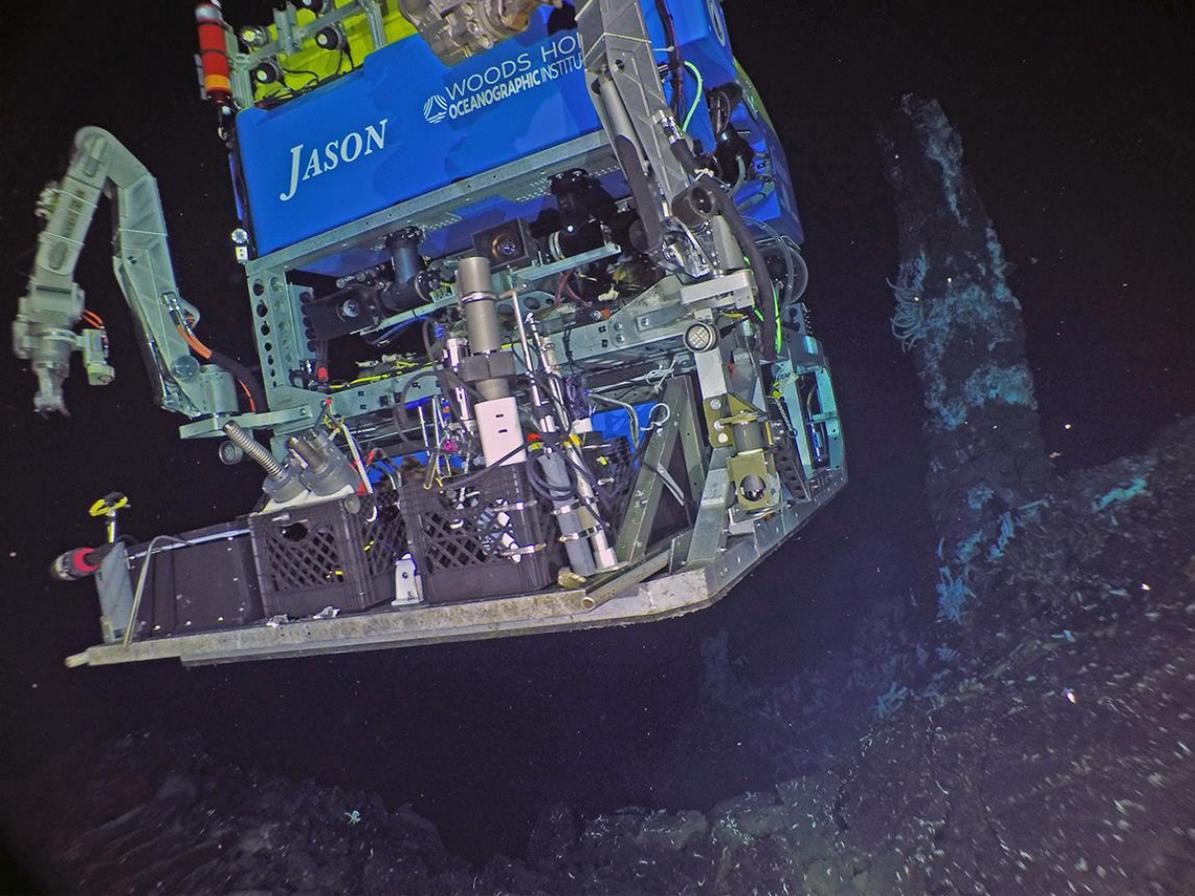


Sentry D581
14,520 still
images collected

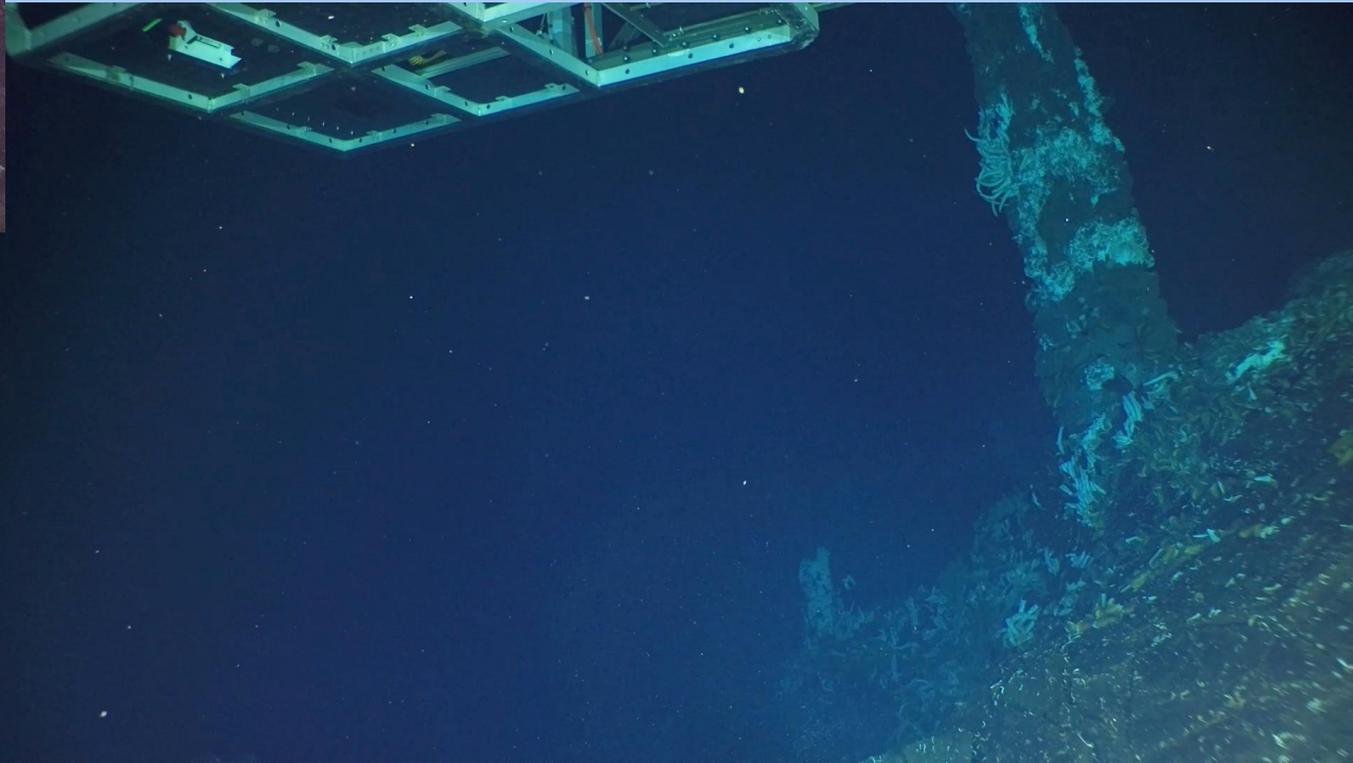


3 images

NDSF Elevator
with MISO Imaging Systems
RR2102
4k video from MISO GoPro
manipulator camera



Expert *Jason* Team piloting, navigation and engineering support contributed to the success of the *Jason* elevator for both sample collection and vehicle imaging using MISO camera & lighting systems.



Fixed-focus deep-sea cameras should be considered for future upgrades as part of the standard suite of cameras for ROV *Jason* and HOV *Alvin*. AUV *Sentry*'s camera and lighting can also be improved.