

ROV Lu'ukai and the ALOHA Cabled Observatory (ACO)

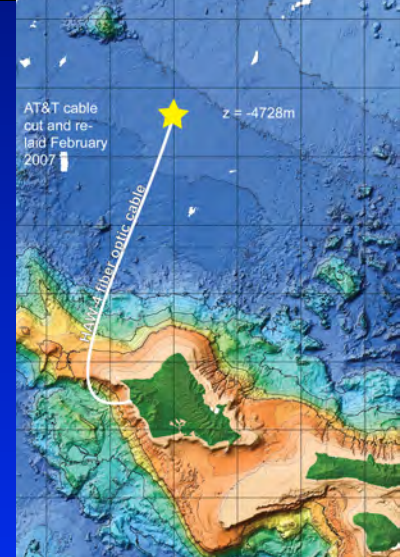
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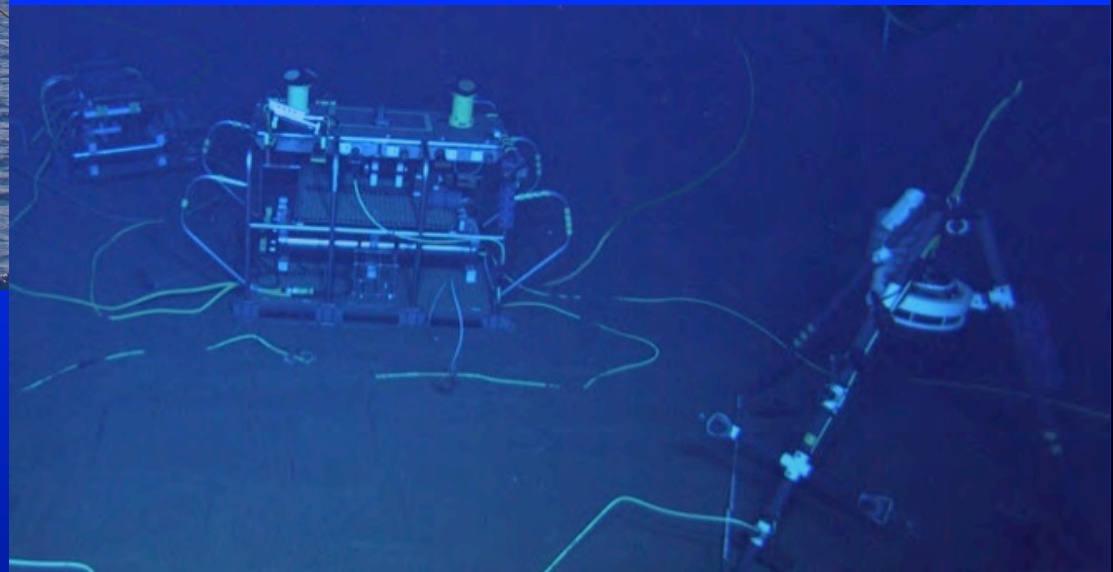
UNOLS Deep Submergence Science Committee (DeSSC)
Annual Community Meeting
San Francisco, CA
Sunday, December 13, 2015



ROV Lu'ukai



ACO
4728 m



September 2015 Service

- Science Mission Objectives

1. Deploy and connect BSP2

2. Deploy and Connect LIGHT4

3. Deploy ELEVATOR and recover BSP1,
LIGHT1, CAM2

16 – 21 September 2015
KM-15-16

- Chronological photos

- Stills from seafloor CAM1

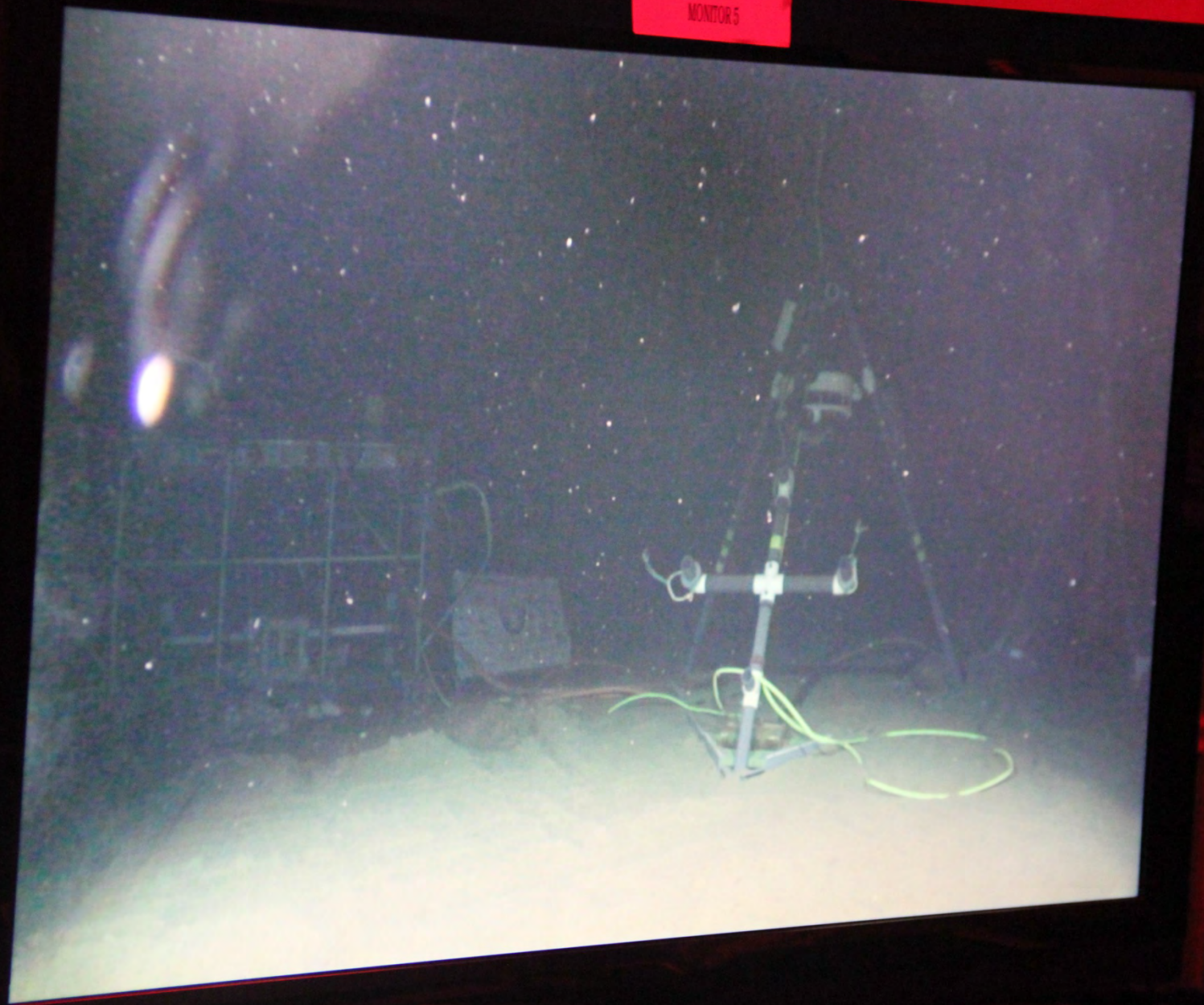
8 dives

- Video from ROV

testing/fixing first ones
Connection Dive 8

- New data

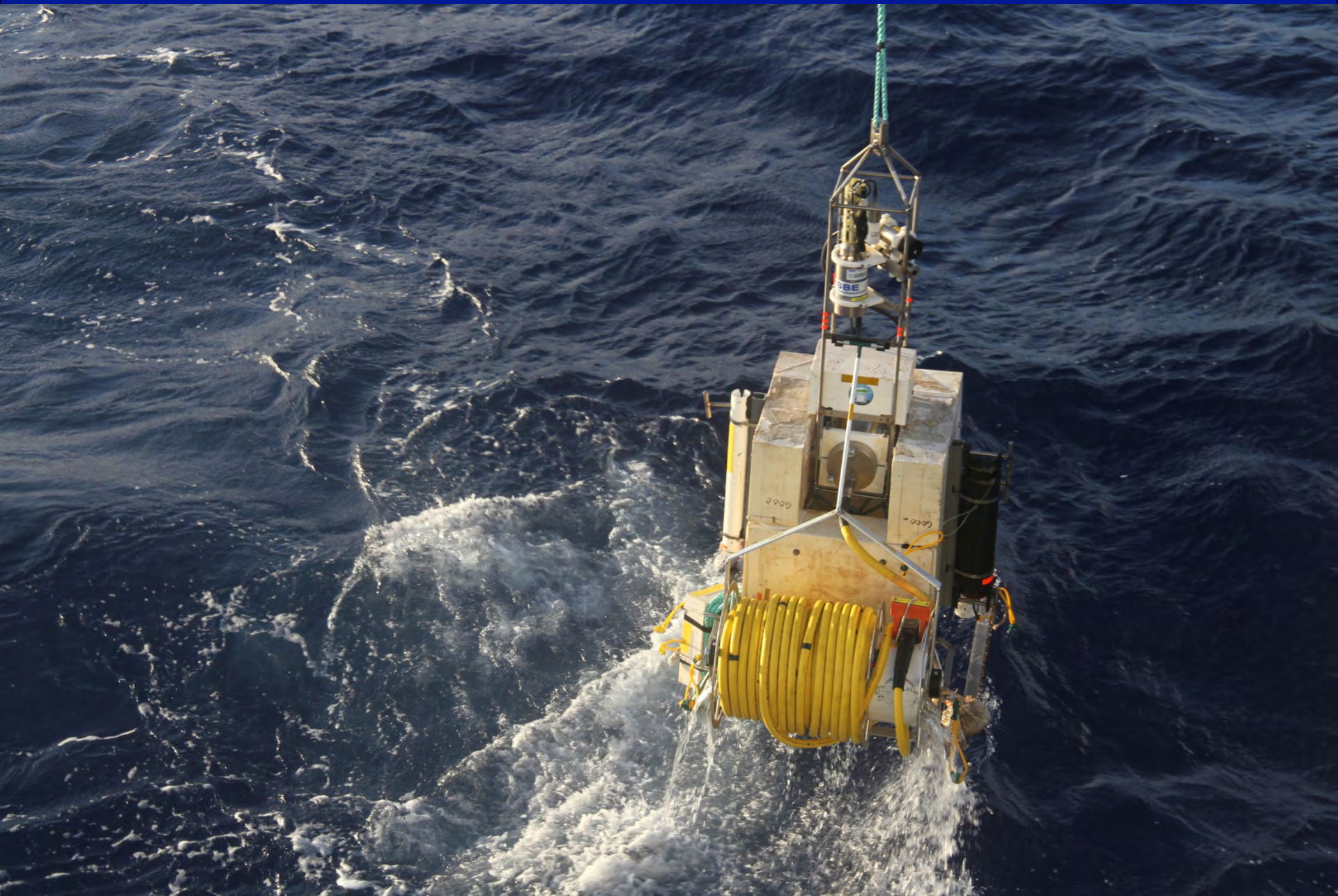
MONITOR 5



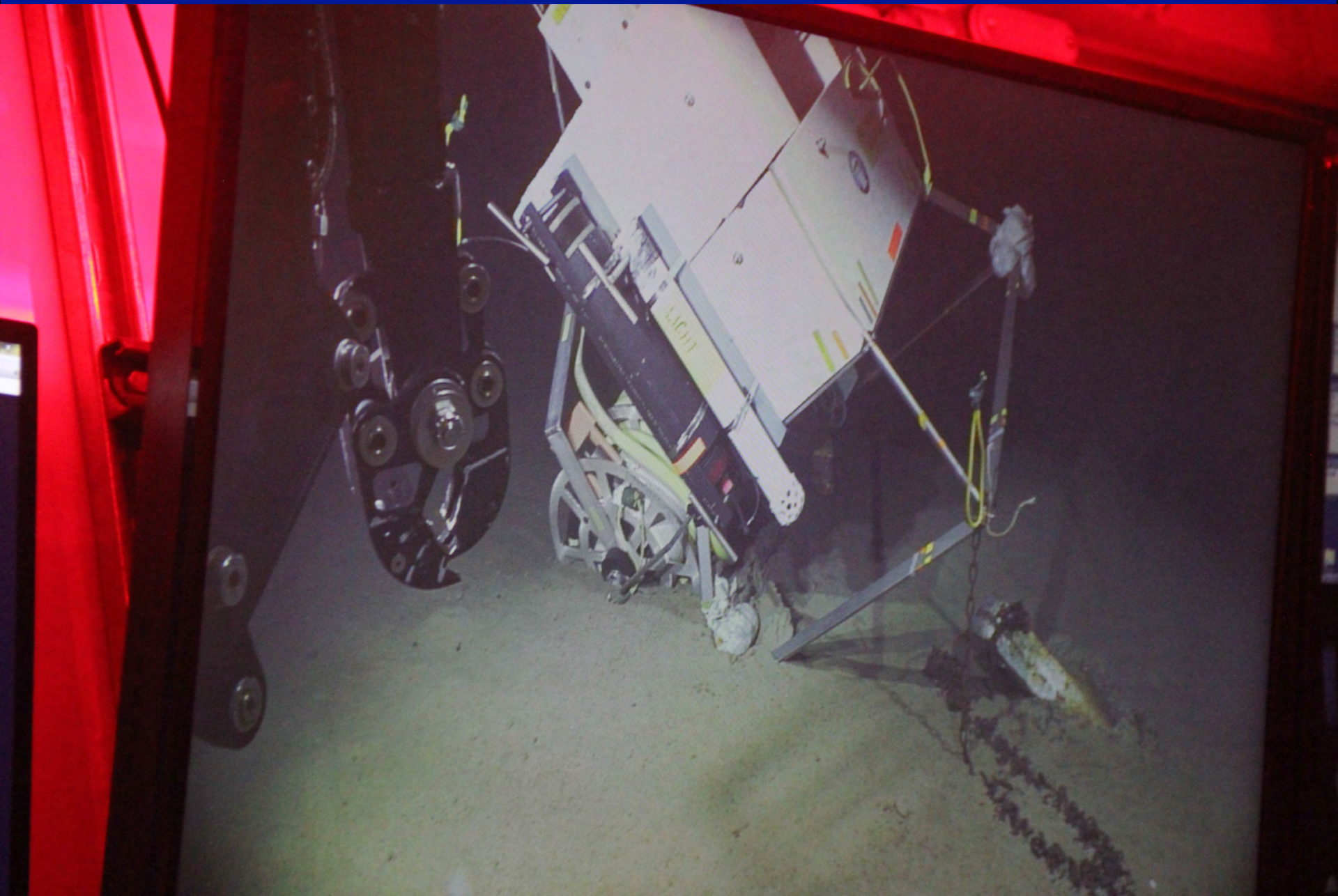


ACO deployed @ 5km UTC 2015-09-19 11:04:23









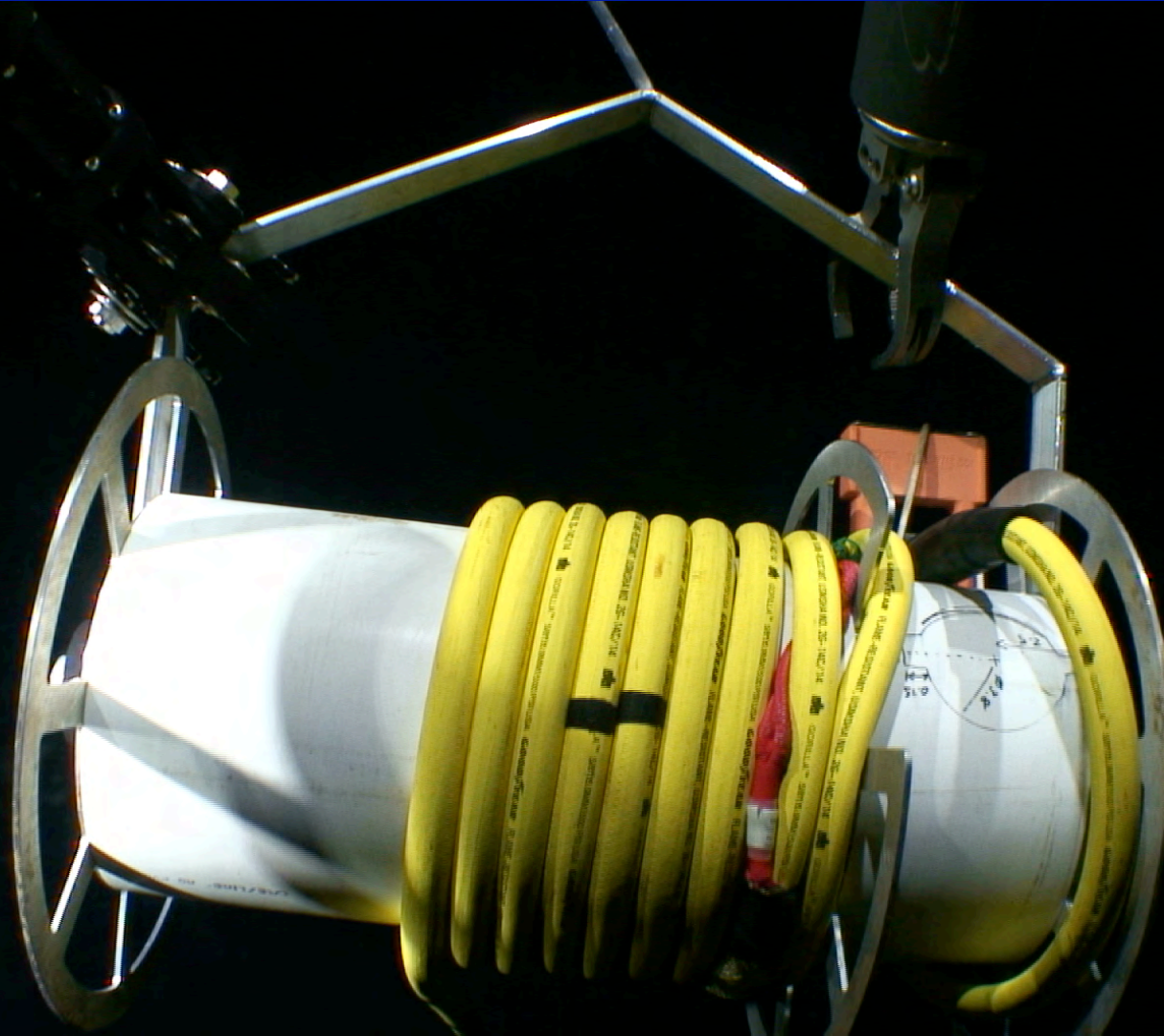


ACO deployed @ 5km UTC 2015-09-20 21:20:10



ACO deployed @ 5km UTC 2015-09-20 22:08:54

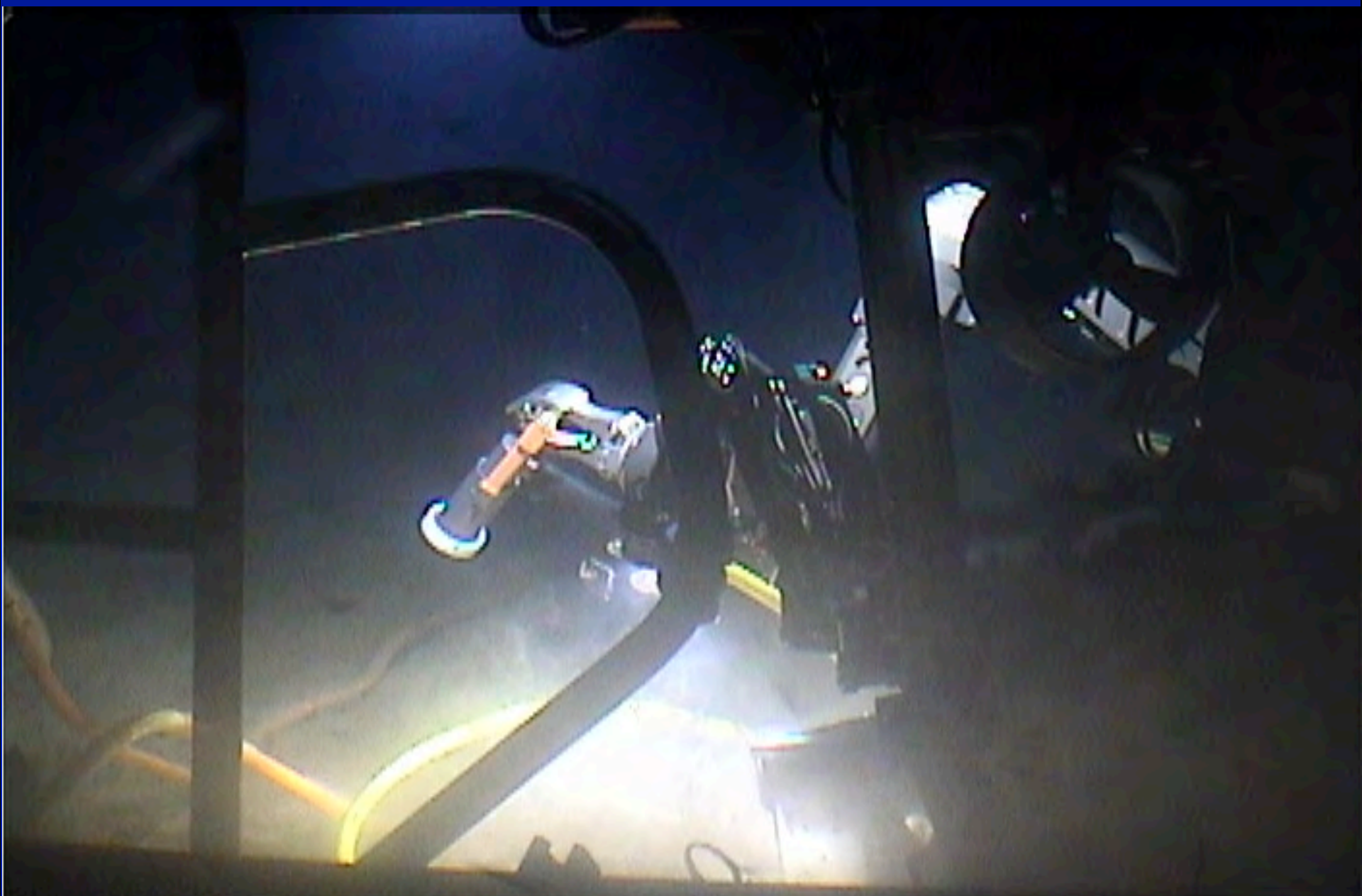
Unspooling hose from BSP2



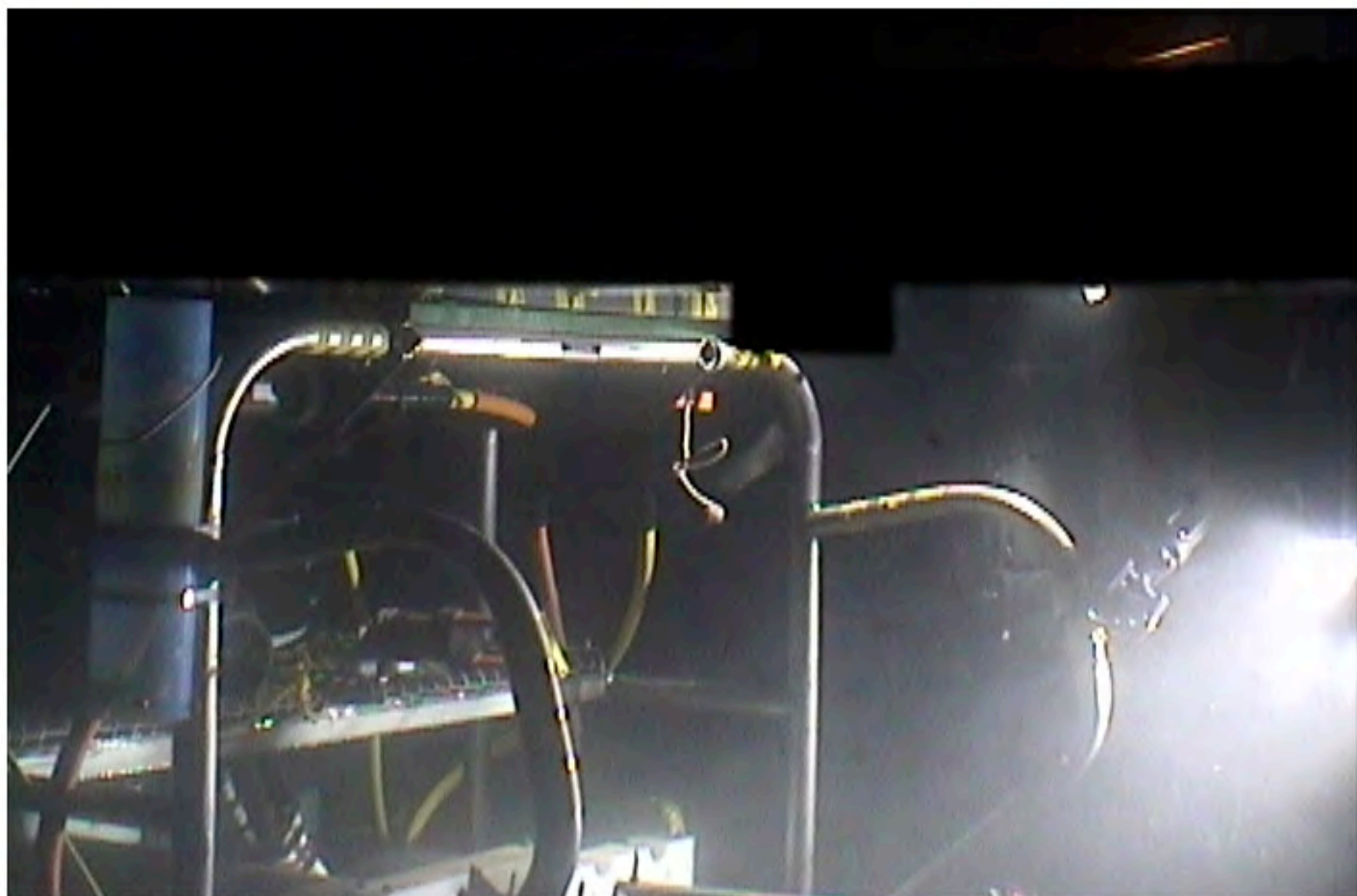


ACO deployed @ 5km UTC 2015-09-20 23:13:59



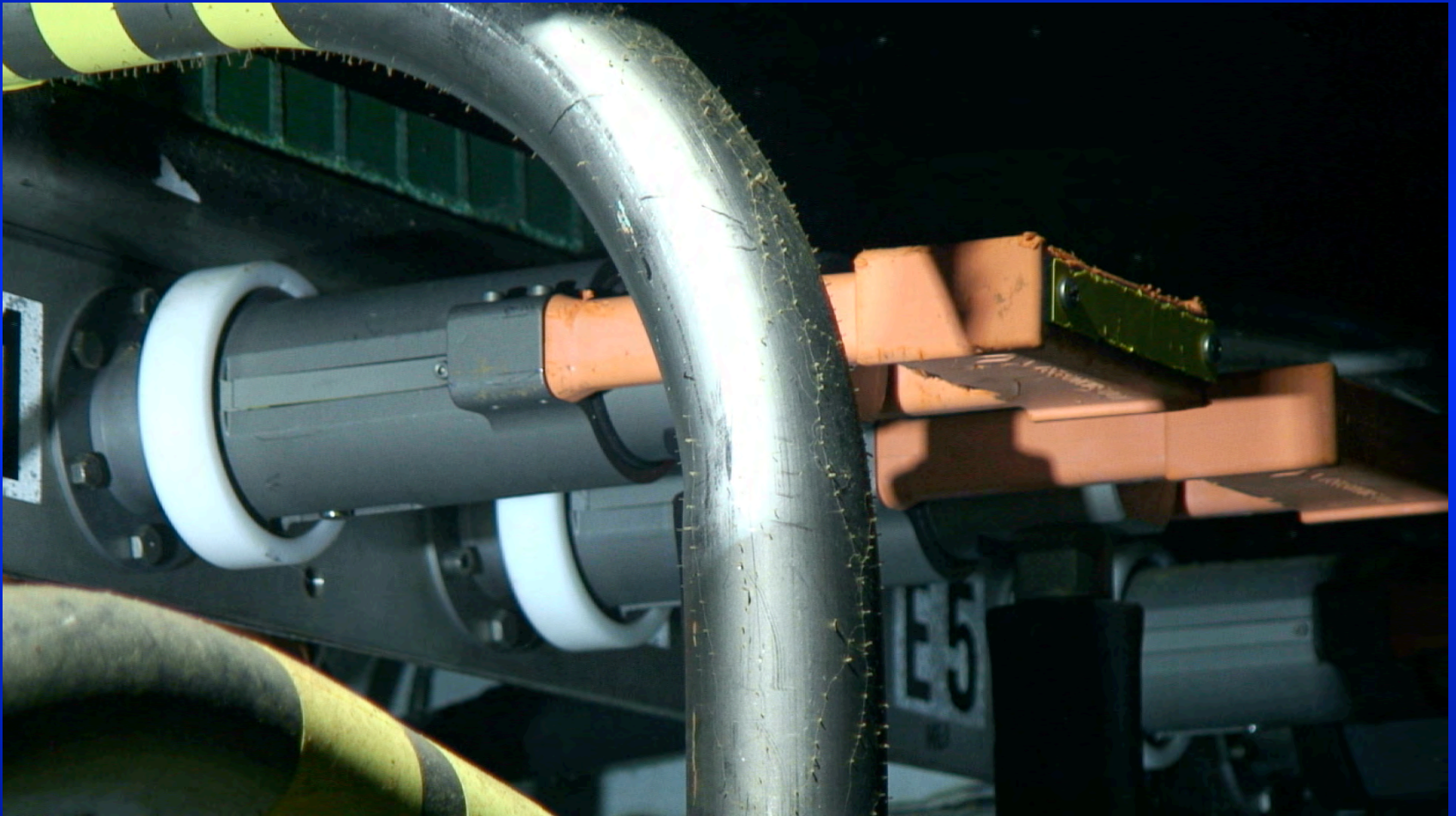


ACO deployed @ 5km UTC 2015-09-21 00:01:12

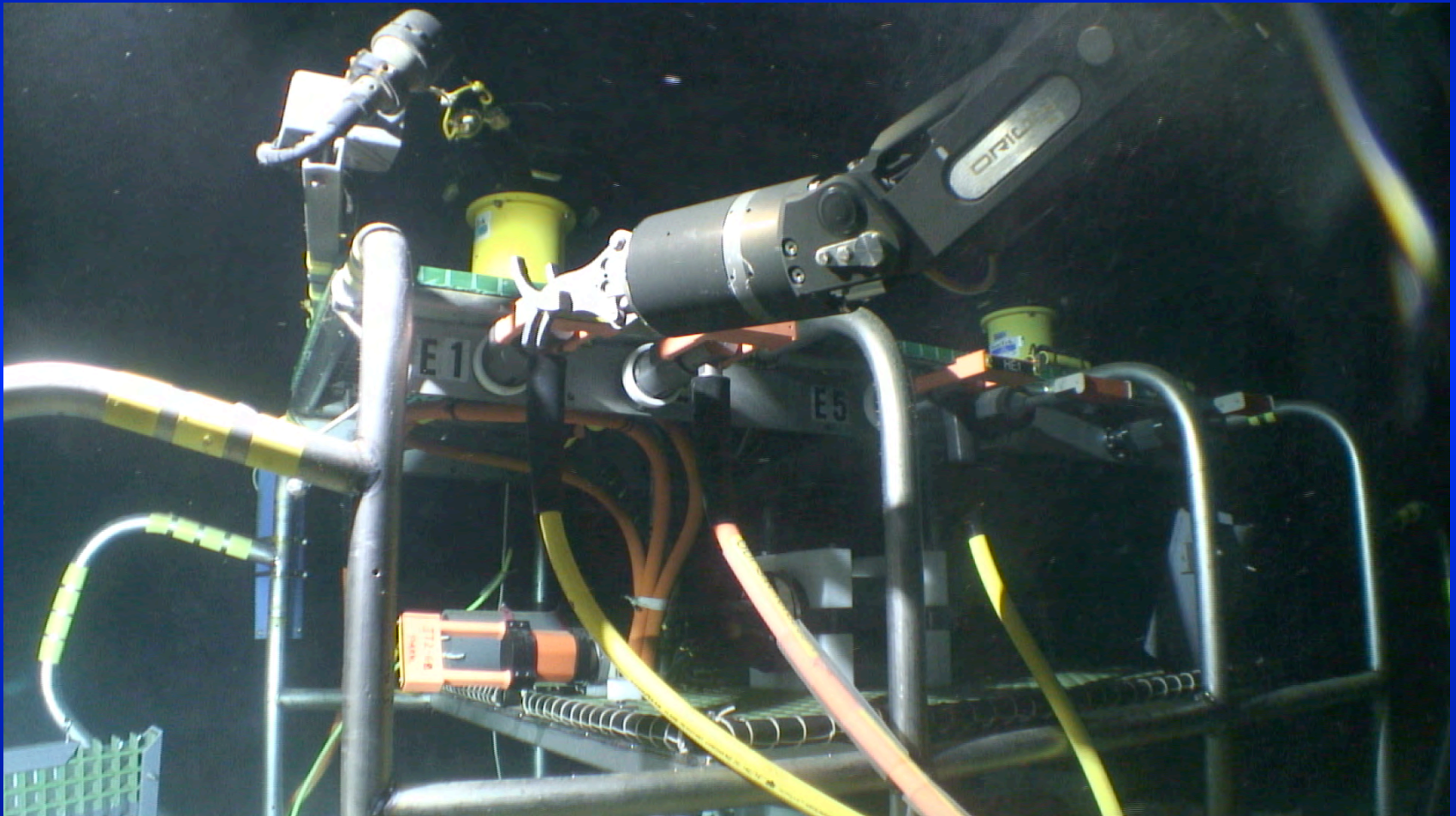


ACO deployed @ 5km UTC 2015-09-21 00:50:10

Observing BSP2 connection



Final push on BSP2 connector



Lessons (re)-Learned

- Define cruise objectives earlier
- More interaction in planning ROV – ACO
- Test ALL components under pressure with electrical as early in the process as possible
- ROV - challenging
 - Need dedicated maintenance
 - Implement improvements
 - Make maintenance and operation more efficient



ROV LU'ukai and ACO

- ROV Lu'ukai demonstrated deep work
- Still improvements necessary
- Underway now
- Next is August 2016 to complete



KM-15-16 Science Party

And the shore party!

