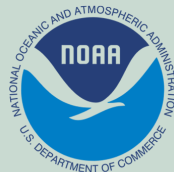




University-National Oceanographic Laboratory System **UNOLS**

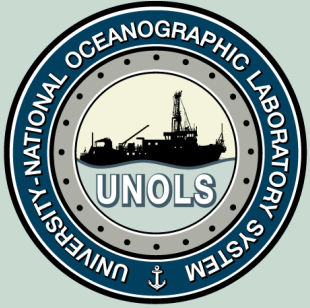
USBL within the ARF





Fleet USBL system inventory

- ***RV Thompson*** - Sonardyne Gryo-USBL system
- ***RV Kilo Moana*** - Sonardyne Ranger 2
- ***RV Atlantis*** - Sonardyne Ranger 2 and NSH w/
Ranger transceiver (older generation due to hull-hole
size)
- ***RV Armstrong*** - Sonardyne Ranger 2
- ***RV Revelle*** - Kongsberg HiPAP
- ***RV Ride*** - Kongsberg HiPAP



Questions/Concerns

- Who has the overall responsibility for the shipboard system?
- Are there trained personnel to calibrate, set-up and operate their particular systems?
- Who is responsible for the documentation on the systems?
- How configurable are/will the systems be?



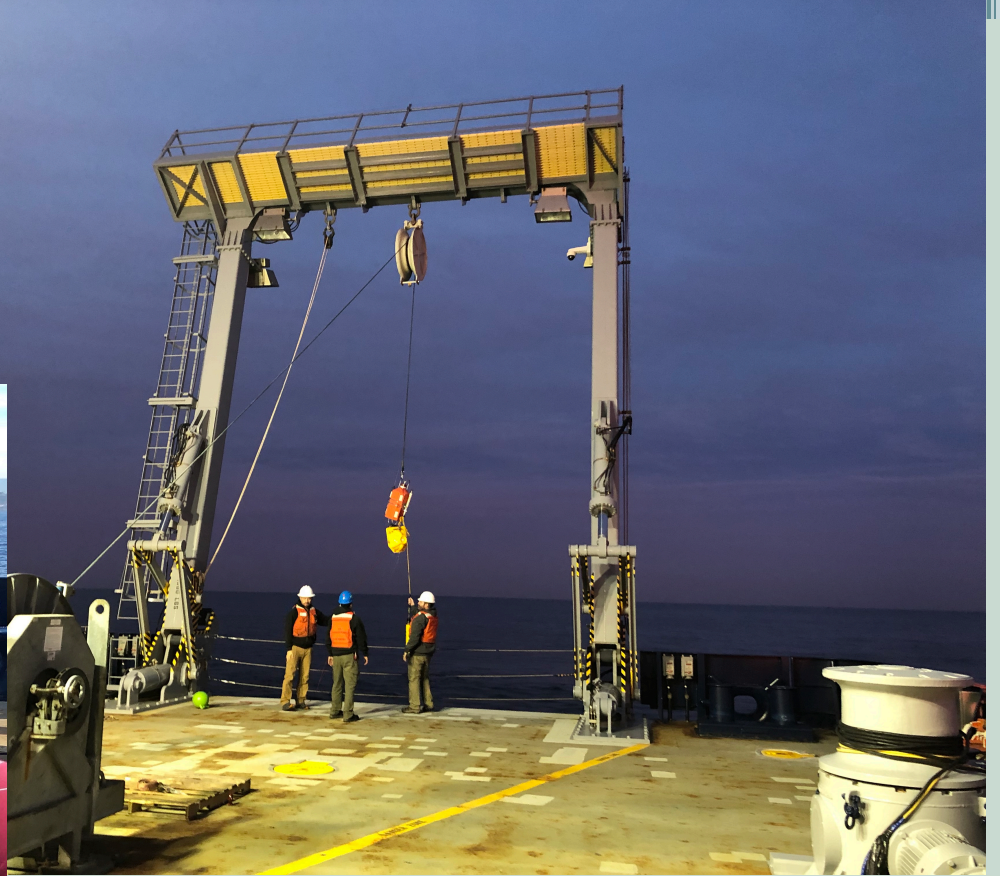
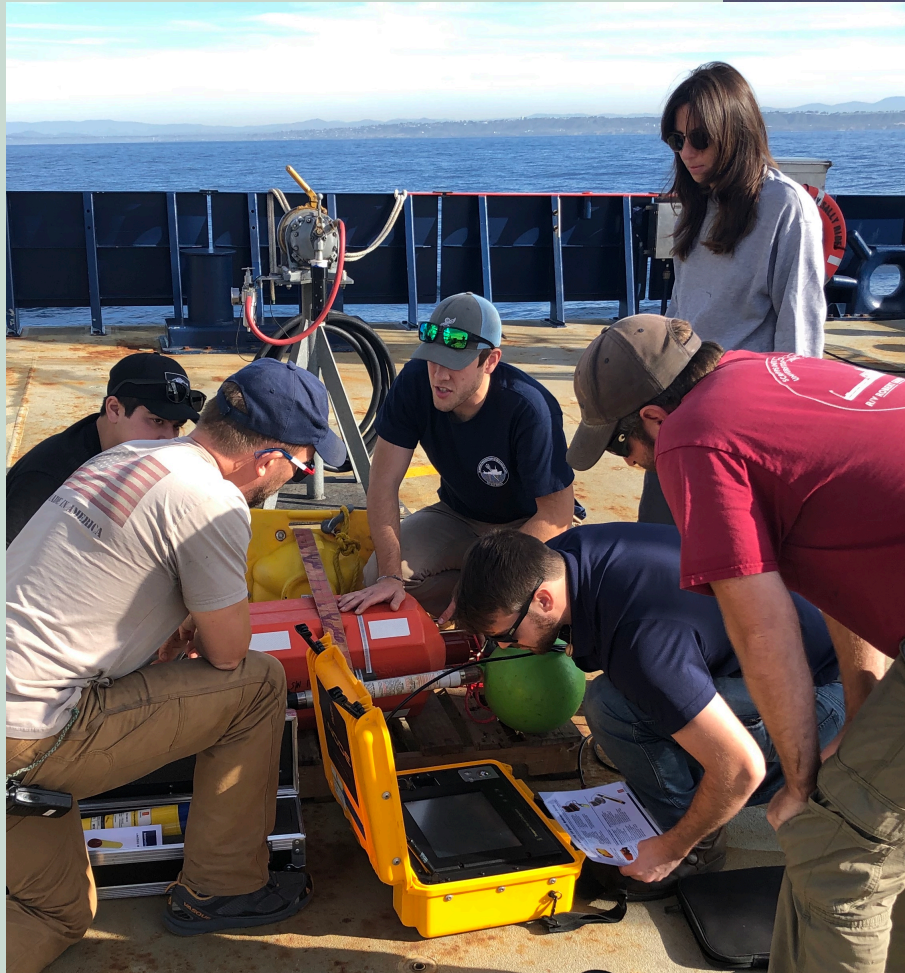
Tech Manager Discussions

- The Shipboard technicians have overall responsibility for the systems - calibrating, running and documentation
 - The managers acknowledged that technicians need more training and will work to get that training for the techs.
- The Managers discussed trying to do full calibrations after each maintenance period as time/funding allows.
- If a science group needs a further calibration time should be added to the science days to ensure that there is sufficient time in the schedule.
- The ship technicians will continue to remain flexible as far as configuration requirements for each science group.
- Having a MAC-like group for these systems was discussed and folks thought this could be a good idea but we did not have any actions towards this.



Making Strides

- INMARTECH – USBL Demos & discussions
 - Sonardyne
- USBL Calibration & Training on RV SALLY RIDE
 - Jan 2019 – SIO conducted a 2-day calibration cruise.
 - Filled the ship with technicians! SIO + others from the fleet
 - Worked not only on the calibration but on training the techs to do this and writing up SOPs
- WHOI hoping to conduct a similar cruises in the coming year(s)





Still need work....

- Sentry cruise on THOMPSON
 - System was not set-up prior to portcall
 - System had not been tested prior to the portcall
 - System was calibrated after mid-life. UW told by manufacturer that further calibration was not necessary
 - UW did not have calibration information
 - The whole pole must be torn down to retract it between deployments
 - Techs were not versed in set-up/ tear-down of the system and pole



Lessons Learned

- System they have is great!
- UW is going to be more on-top of the cruise planning for cruises that require the USBL.
- They recognizes their technicians need training and are working to remedy this.
- They are working on a way to retract that pole with requiring only partial tear-down the pole during recoveries.
- We are not out of the woods yet.



Questions?