

- **43 funded days**
- **3 cruises completed**  
*Off Chile, GoM, Atlantic Seaboard*
- **31 dives, 225 hrs submerged**
- **Longest: 8.8 hrs**
- **Average: 7.3 hrs**
- **Average bottom time: 5.3 hrs**
- **No dives lost**





# NDSF 2015 Vehicle Operations Summary

## *Alvin* Highlights



### **AT26-27 *Alvin* 4500m Certification Series, 25-29 Jan, Chilean shelf**

- Three dives, including US Navy participation
- *Alvin* officially certified to 4,500m on second dive
- Third dive with Rob Munier, visited epicenter of 1877 Chilean earthquake

### **AT29-02 David Valentine Cruise, 15-29 Jun, Gulf of Mexico**

- Joint operations with *Sentry*
- 10 dives with no dives lost
- 1 engineering dive
- Two new *Alvin* pilots begin regular operations
- PATZ cameras returned from dome repair, operational
- Installation of new *Alvin* CTD
- Successful installation and use of new CO<sub>2</sub> scrubber



# NDSF 2015 Vehicle Operations Summary

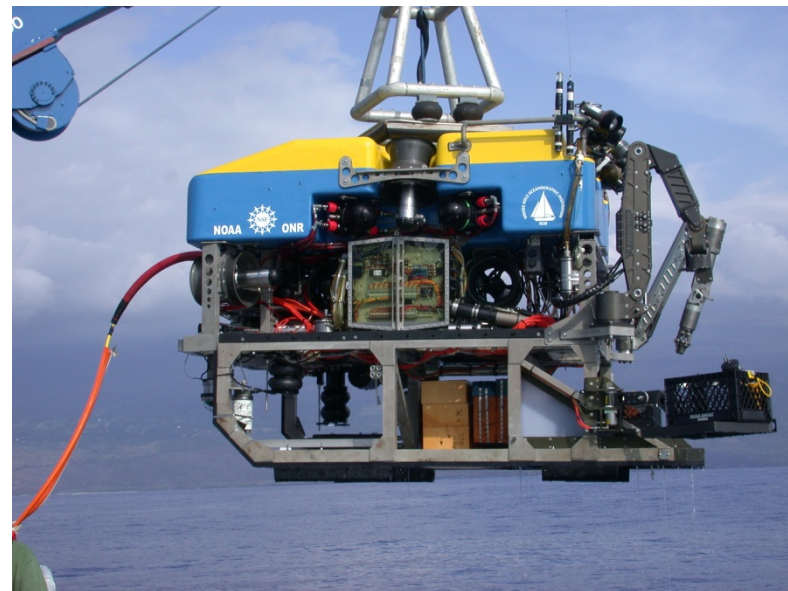
## *Alvin* Highlights (cont.)



### AT29-04 Cindy Van Dover Cruise, 8-28 Jul, Atlantic Seaboard

- Joint operations with *Sentry*
- 18 dives with no dives lost
- 1 engineering dive
- Reson sonar installed for initial testing
- First opportunity to evaluate *Alvin* nav post processing software
- Installation of AIVL 4K video camera system
- Dives included in-water footage obtained by AIVL (launch/recovery)
- Support of Van Dover/Dukes 3-D *Alvin* in-hull imaging (Google Glass)

- **75 funded days**
- **3 cruises completed**  
*Le Havre Volcano, Lau Basin, JdF*
- **25 dives, 493.5 total hrs**
- **On bottom: 428 hrs**
- **Longest: 45 hrs**
- **Average: 19.7 hrs**
- **Vessels used:** *Revelle, Thompson*



- New Effer hydraulic power pack allowing for better crane performance with added feature to deck-test *Jason's* manipulators
- “K” tube cable has been successfully manufactured and tested offering a new fiber construction more compatible with use from the single drum Rapp-Hydema single drum winch
- CSDS (and team) load-tested the *Jason* sample drawer



- **102 funded days**
- **5 cruises completed**
- **41 dives, 504.2 hrs in water**
- **Total survey time: 435.5 hrs**
- **1,268.2 km of survey**
- **Average depth: 1,221 m**
- **Vessels used:** *Wellington, Revelle, Atlantis, Thompson*





## Sentry Highlights

- **High volume larval sampling**
  - 11 dives - 132 morphotypes
  - 800+ individual samples divided 2:1 or 4:1 before analysis so actual total is much higher
- **New batteries**
  - 28 hour multibeam missions
  - 50-60 hour photo missions
  - Same turnaround time
- **700km straight line survey at 5,500-6,000m**
- **New Expedition Leader**
  - Sean Kelley (2 very successful trips complete)