NDSF Operator’s Report
NDSF Vehicle Operations Summary
Alvin Operations Summary

5 cruises (1 underway)
   Alvin/Sentry engineering
   Popping Rocks
   SAB Deepwater
   Costa Rica Seeps
   Guaymas Basin

107 total operating days
   14 Engineering cruise
   34 Kurz cruise
   18 Adams cruise
   25 Cordes cruise
   16 Teske cruise

69 total dives
   9 Engineering (929 – 4,402 m)
   18 Kurz (2,917 – 3,937 m)
   11 Adams (403 – 2,169 m)
   20 Cordes (407 – 2,200 m)
   11 Teske (2,007 – 2,016 m)

536 hours submerged
408 hours on bottom
6:00 hours average bottom time per dive
Alvin Highlights

- New EL Todd Litke
- First solo dive – Danik Forsman
- Successfully implemented reduction in ascent/descent transit times
- Superb bottom times – avg > 7 hours
- Executed draft procedure for Alvin/AUV joint ops
- Challenging operations in Gulf Stream – demonstrate unique attributes of HOVs
- First test of new Alvin thruster (to full cert depth)
- New computers and touch screen interfaces
- Testing of DSPL 4K video camera
JASON Operations Summary

- **75 dives over 9 cruises**
  - Brothers Volcano 5 dives (J2-1037 – 1041)
  - Jason Engineering 1 dive (J2-1042)
  - OOI_RCA 58 dives (J2-1043-1110)
  - Nooner Axial (J2-1104-1105)
  - Lang Lost City (J2-1106-1112)

**Bottom hrs:**
- **Longest:** 49.7 hrs
- **Vessels used:** Thompson, Revelle, Kilo Moana, and Atlantis

Photos by Erik Olsen
JASON Highlights

- New Control Vans received great feedback
- JASON program convened “Science ROV Cable Torque Workshop”
- Engineering Cruise successfully established single-body operation procedure
- Great success on the OOI-RCA cruises

Photo by Erik Olsen
Sentry Operations Summary

- 103 operating days (~ Nov.28)
- 6 cruises (1 underway)
  Engineering, PoppingRocks2, Technology, Costa Rica seep, Guaymas, EPR 9N
- 55 dives (~ Nov.28)
- Max 30.5 hrs mapping survey
- Vessels used: Atlantis, Atlantic Explorer

Photo by Lu Lamar
Sentry Highlights

AUV Sentry 500th dive on Oct. 17th!

- ROS software tested and qualified for science operations
- Syntactic foam (50 lb science payload increase)
- Improved surface communications link between ship and Sentry with new tail fin.
- Waveglider integration into Operations program
- Concurrent operations with Alvin
- Sidescan Processing software upgrade
- Multi-altitude water column chemical mapping
Cross-platform highlights

- **HOV Alvin - AUV Sentry cruise live broadcast** from the R/V Atlantis top lab
  
  **When**: Tuesday, Dec. 11
  Wednesday, Dec. 12
  Thursday, Dec. 13
  from 2:30 to 3:30 EST each day

  **Where**: AGU booth in the W. E. Washington Convention Center, Hall D.

- **R/V Atlantis, HOV Alvin, AUV Sentry Open House**

  **When**: Saturday, December 22nd 09:30-14:30 PST

  **Where**: Terminal B Pier, San Diego