NDSF Operator’s Report

NDSF Vehicle Operations Summary
Alvin Operations Summary

2 cruises
   Alvin/Sentry engineering
   Popping-Rocks

45 total operating days
   34 Kurz cruise
   11 Engineering cruise

27 total dives
   18 Kurz (3400 to 3800m)
   9 Engineering (929 to 4402 m)

197 hr total time submerged
4:32 average total bottom time
5:38 average bottom time Kurz

Image by Lu Lamar
Alvin Highlights

Engineering Series – Bruce Strickrott

- Operations in Veatch Canyon & Bermuda Area
- PIT training/systems engineering on all dives
- First test of new Alvin thruster (to full cert depth)
- New computers and touch screen interfaces
- First dives – **Commodore Stephen Mack (DEVRON 5)**
  Captain Al Lunt, Masako Tominaga,
- Superb photography by Lu Lamar
- No major problems – excellent preparation for Kurz

Popping Rocks – Mark Kurz

- Operations in Mid-Atlantic
- First solo series for new EL Todd Litke
- Successfully implemented reduction in transit times
- No major vehicle problems, no lost dive time
- OV test dive at end of series
- Executed draft procedure for Alvin/AUV joint ops
JASON Operations Summary

• 38 operating days
• 2 cruises
  □ Brothers Volcano 5 dives (J2-1037 – 1041)
  □ Jason Engineering 1 dive (J2-1042)
• 119.3 total on bottom hrs
• Longest: 49 hrs
• Average: 19.87 hrs
• Vessels used: Thompson, Revelle
JASON Highlights

- New Control Vans received great feedback
- Humphris to Brothers Volcano on Thompson in 2-body
- JASON program convened “Science ROV Cable Torque Workshop”
- Engineering Cruise successfully established single-body operation procedure

Photo by Erik Olsen
Sentry Operations Summary

- 45 operating days
- 2 cruises

*Engineering, PoppingRocks2*
- 26 dives
- Total survey time: 211 hrs
- Average dive time: 10 hr
- 700 km of survey
- **Vessels used:** *Atlantis*

Photo by Lu Lamar
Sentry Highlights

**Engineering Cruise highlights**
1. 7 Engineering Dives Completed
2. ROS software tested and qualified for science operations
3. Syntactic foam (50 lb science payload increase)
4. Improved surface communications link between ship and Sentry with new tail fin.

**Kurz Cruise highlights**
1. Flawless cruise for Sentry with no hardware or software failures
2. 17 Dives completed, no aborts or delayed dives
3. Waveglider integration into Operations program
4. Concurrent operations with Alvin
5. Sidescan Processing software upgrade and pipeline improvements implemented.
6. 33 hour multibeam dive covering 70km of terrain