

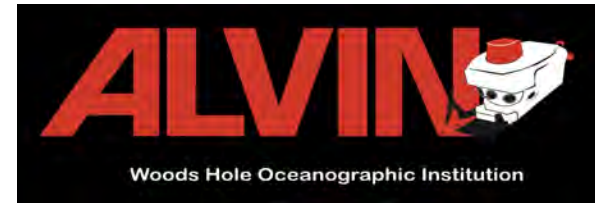
NDSF Operator's Report

NDSF Vehicle Operations Summary

NDSF NATIONAL
DEEP SUBMERGENCE
FACILITY



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

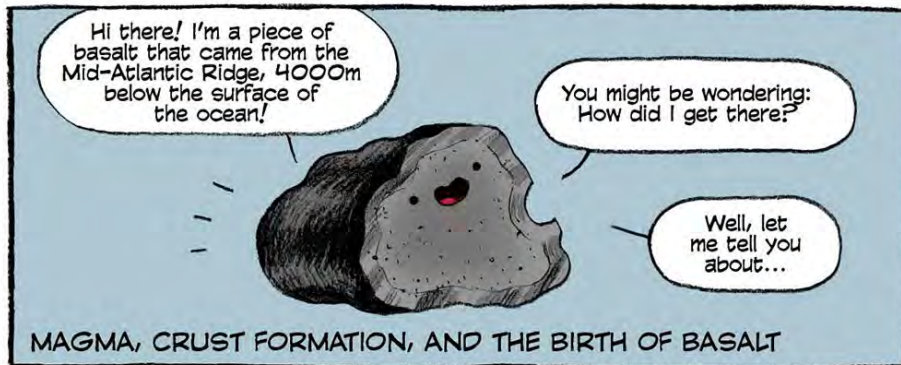
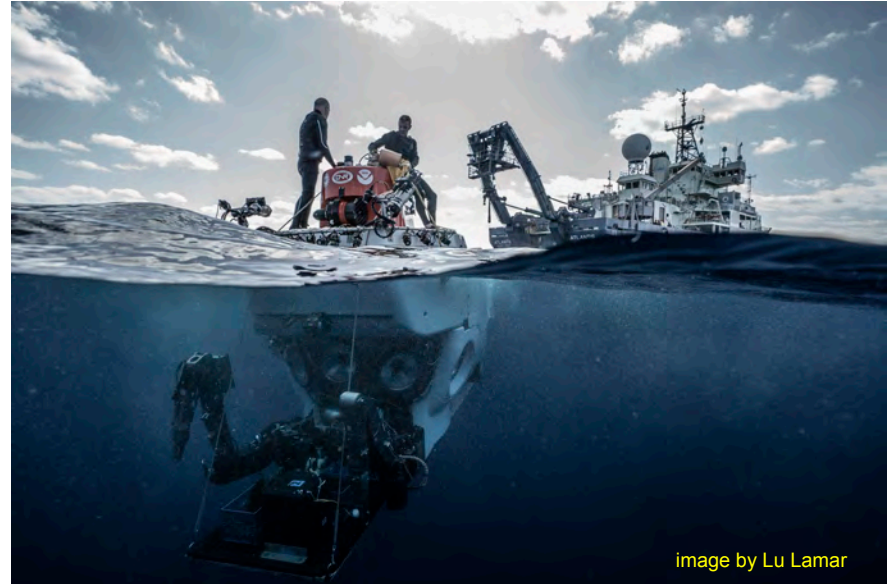
5:38 average bottom time Kurz



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**



Photos by Erik Olsen

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*

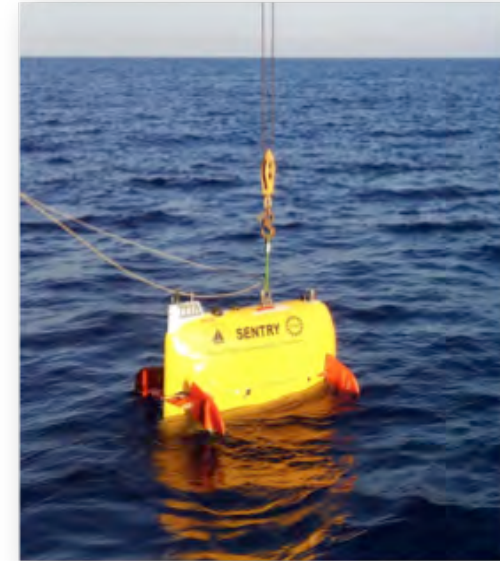


Photo by Lu Lamar

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