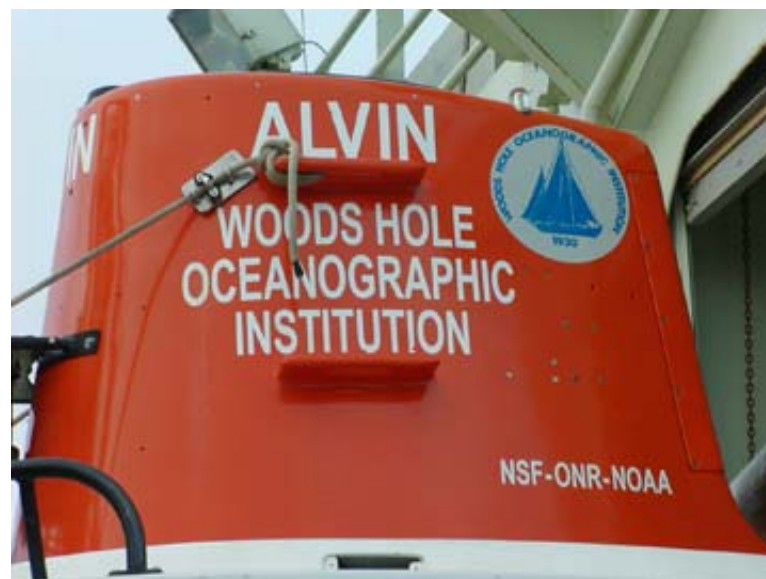


# Alvin Operations - 2009

- **2 cruises completed, 5 upcoming**  
*Costa Rica, Juan de Fuca, Guaymas Basin, Southern California*  
*20 dives (81 projected for the year)*
- **Three month layup**  
*March-June*
- **1 dive lost to weather**
- **Average dive duration: 8.27 hrs**
- **Average bottom time: 5.65 hrs**
- **Completed successful NAVSEA sustaining certification in April**



# Jason Operations - 2009

- **3 cruises completed, 1 to go**  
*Tasmania, Mariana Islands, Lau Basin*
- **39 lowerings**
- **Longest lowering: 50 hrs**
- **Over 475 hrs bottom time**
- **Vessel used: TG Thompson**
- **Highlight:**
  - *Real-time eruption video at Lau Basin*



# ABE Operations - 2008

## Two ABE cruises occurred in 2008:

1. Jan 11 – Feb 01, **Jess Adkins**, South of Hobart, Tasmania, 6 dives

Two sites: the Sisters Seamounts (44-19S 147-14E) and the Tasman Fracture Zone area (45-17S 146-0E) were studied over the six dives with resulting totals of:

Survey time:	73.5 hrs
Photo time:	50.2 hrs
Photo distance:	38.9 km
Multi-beam sonar time:	23.3 hrs
Multi-beam sonar distance:	38.3 km



# ABE Operations - 2008

2. Aug 13 – Sep 07, **Dr. Tao**, COMRA & **Jin Lin**, WHOI, Galapagos, 4 dives

On this cruise four ABE dives were conducted using a combination of high-resolution multi-beam mapping and seafloor photography to locate and characterize new hydrothermal fields near 2S on the East Pacific Rise.

Resulting vehicle totals:

Survey time:	56.2 hrs
Photo time:	29.1 hrs
Photo distance:	31.8 km
Photos taken:	20,713
Multi-beam sonar time:	27.1 hrs
Multi-beam sonar distance:	51.3 km

