

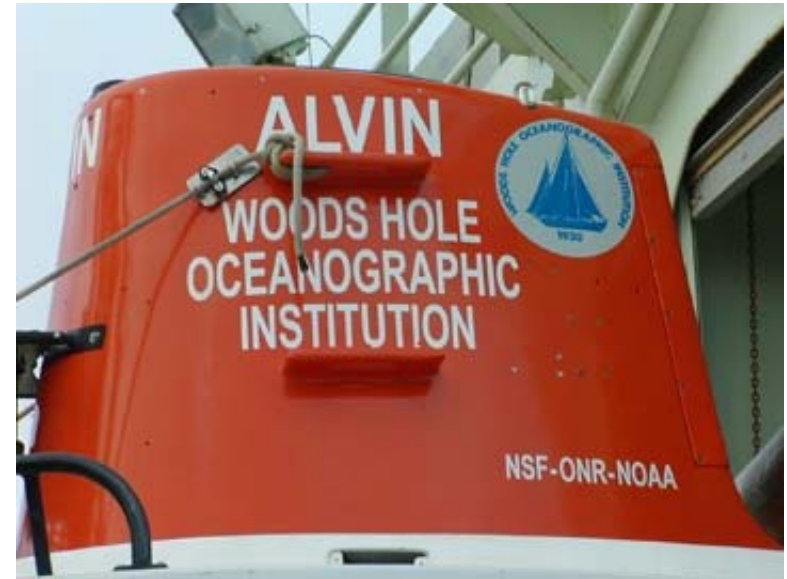


# NDSF Operator's Report

## Alvin Operations



- **5 cruises completed, 73 dives**  
*Costa Rica, Galapagos, Juan de Fuca, Gulf of Mexico*
  - **1 cruise underway, 6 dives**  
*Gulf of Mexico*
- **Several non-Alvin periods**  
*Feb, Apr-Jun, Sep-Oct*
- **8 dives lost to weather**  
*JdF July, GoM November*
- **1 dive lost to mechanical problem**
- **Average dive duration: 7.2 hrs**
- **Average bottom time: 5.2 hrs**
- **Highlights:**
  - *HD imaging equipment installed*
  - *USBL continues to improve*
  - *Final dives before upgrade*





# NDSF Operator's Report

## Jason Operations



- **6 cruises completed**  
*Mariana Arc, Juan de Fuca, Gulf of Mexico*
- **64 lowerings**
- **Longest lowering: 86 hrs, avg 17 hrs**
- **956 hrs data collected**
- **Vessels used:**  
*Kilo Moana, Atlantis, Thompson, Brown*



- **Highlights:**

- *Successfully completed Cowen cruise on short notice; major sensor integrations, multiple simultaneous elevator operations, bore hole data collections*
- *Demonstrated ability to deploy and recover heavy packages via Medea drop and via wire*
- *Navigated by USBL to within one meter of a target*
- *Drill sled operations and change over completed at sea with no down time*
- *Located signs of oil damage from DWH oil spill on sea floor in GOM*
- *Worked in high current conditions in the Gulf Stream*



# NDSF Operator's Report

## Sentry Operations



- **4 cruises completed**  
*Galapagos, GoM, JdF, North Atlantic*
- **41 dives**
- **1 cruise underway, 6 dives**
- **Longest dive: 29 hrs, avg 12 hrs**
- **443 hrs data collected**
- **Vessels used:** *Atlantis, Endeavor, Thompson, Merian*
- **Highlights:**
  - *Extensive bathymetric mapping on the Galapagos Rift*
  - *Responded in ~10 days to support Camilli cruise, Gulf of Mexico*
  - *Entered NDSF in July*
  - *Multiple vehicle operations with Jason (OOI cruise) and Cherokee ROV (Haakon Mosby Mud Volcano)*
  - *Water column oceanographic surveys (DWH plume dispersion, bubble plumes on Hydrate Ridge, CH4 flux from HMMV)*
  - *Second short-notice mobilization to support Fisher et al. RAPID project to GoM (Alvin & Sentry)*

