



NDSF 2010 Vehicle Operations Summary

Alvin Operations



- **2 cruises completed, 33 dives**
Costa Rica, Galapagos
- **4 cruises remaining, 75 dives**
*Juan de Fuca, Oregon Margin,
Gulf of Mexico*
- **No dives lost**
- **Average dive duration: 7.71 hrs**
- **Average bottom time: 5.19 hrs**
- **NAVSEA sustaining certification in early May**
- **Six pilots available for Sinton cruise**
- **No PITs at present, but actively seeking new hires**



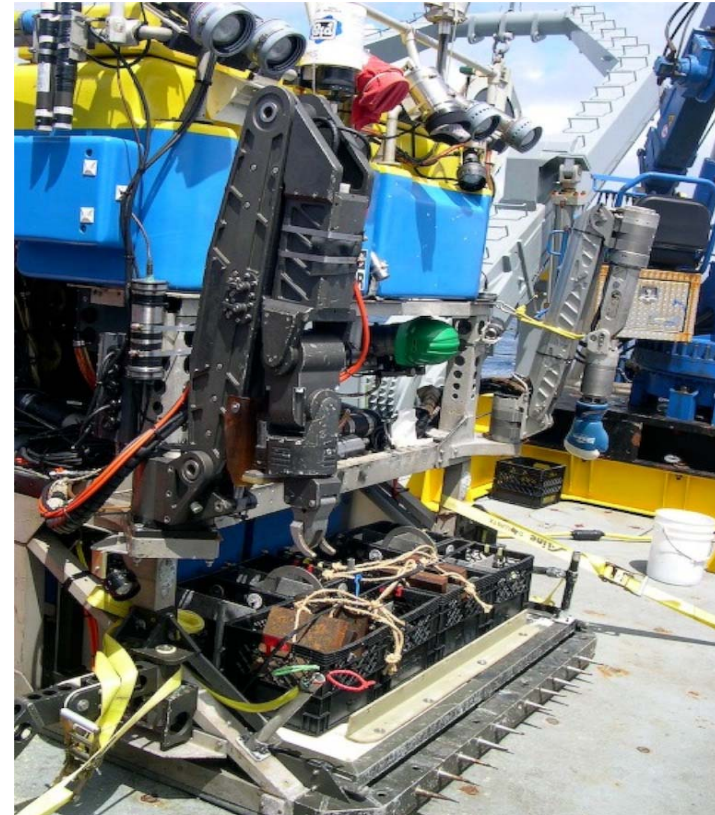


NDSF 2010 Vehicle Operations Summary

Jason Operations



- **1 cruise completed (Chadwick)**
NW Rota op area
- **10 lowerings**
- **Longest lowering: 14.5 hrs**
- **Deepest: 1,850 m**
- **Over 116 hrs bottom time**
- **Vessel used: *Kilo Moana***
- **Highlights:**
 - *USBL integrated*
 - *Schilling Titan 4 manip integrated*
 - *HD camera integration in June*
 - *Reson multibeam integration in June*
 - *Fiber optic upgrade in June*





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Sentry Operations



- **1 cruise completed (Sinton)**

Galapagos

- **22 lowerings**
- **Longest lowering: 14 hrs**
- **Deepest: 2,733 m**
- **Over 205 survey hours**
- **502 kms surveyed**
- **Vessel used: *Atlantis***



- **Highlights:**

- *Automation of bathymetry processing to provide initial map of good quality*
- *Sentry bathymetry provided to Alvin as a navigation underlayment for use in Alvin and in Top Lab during a dive*
- *Science identified possible hydrothermal vents from high resolution bathymetry (two vents found this way). Several other vents located with onboard sensors.*
- *Speed increased to ~ 1 m/s (2 knots) up from ~ .75 m/s (1.5 knots)*
- *Bathymetric coverage ~ 0.7km²/hr. Nighttime surveys provided ~ 7 km² coverage*
- *Recovered from leak into main pressure housing to make 5 more dives*

DESSC
May, 2010



NDSF 2010 Vehicle Operations Summary

Support Vessels



- *Atlantis*



- *Kilo Moana*

