

NDSF 2015 Operator's Report **R/V Neil Armstrong**







DeSSC Dec 15



NEIL ARMSTRONG WOODS HOLE MA

- September 21 Signed bareboat charter agreement
- September 23 Formal handover from U.S. Navy to WHOI
- October 31 Departure from Anacortes
- November 7-10 San Francisco
- November 23-35 Panama Canal
- December-February Detyens shipyard, Charleston
- March-April Science verification
- May First science



NDSF 2015 Operator's Report **Nereus Legacy Fund**



NLF Guiding Principles

- Develop deep submergence technology with broad impact
- Enable new operational paradigms and open new realms to scientific enquiry
- Deliver deep submergence tools that enhance ocean science

NLF Project Criteria

- Benefit a wide range of DSV users
- Provide synergistic opportunities (material or otherwise) between vehicles
- Provide leveraging opportunities for future growth
- Provide mechanism to continue development of forward-looking tools for deep submergence science





NDSF 2015 Operator's Report **NDSF Announcements**





HYBRID LIFT TETHER Complete the development of a hybrid lift tether begun as part of the *Nereid* HT vehicle project to enable single-body ROV operations.





SENTRY ASV TENDER Develop capability to autonomously monitor and control AUV Sentry to enable more efficient dual vehicle (or ship) operations by removing the need for a proximal surface vessel tender.

6,500M ALVIN Execute the necessary engineering studies that roadmap the final stages of the 6,500m upgrade. Conduct power model and energy analysis, conduct variable ballast and arrangement model trade studies.

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NDSF 2015 Operator's Report **NDSF Announcements**









HADAL TECHNOLOGY Ground-up, science-driven, phased hadal program leading towards vehicle development. Workshop to define science priorities, initial design of smart-lander followed by addition of mobile assets for hadal investigations.

NUI TRANSITION Transition NUI into a science-ready vehicle for routine high-latitude operations. Acquire/replace hardware and develop software to address issues from initial deployment in preparation for field trials.

NDSF DATA CONVERGENCE &
TELEPRESENCEDevelop acommon automated data processing
pipeline, data tracking and delivery system,
determine benefits of telepresence-
enabled on-shore data processing.

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