Annual FY2002 Deep Submergence Facility Upgrade Request
Suggested Proposal Content

Concept:

Major hardware advances have been made for the NDSF facilities - from sonar to video to attitude/navigation systems.

Proposal Effort:

Would be dedicated to data processing and deliverable products resulting from these systems. Developing software tools and documentation required to codify and streamline the complex data processing tasks including navigation editing, smoothing, nav/attitude merging with sonar data, and delivering suitable shipboard data products to scientists. Effort would encompass data collected on Alvin, JasonII, Argo, and DSL-120A vehicle systems. This will involve largely personnel time to develop GMT, MatLab, and related scripts that work with Alvin and ROV formatted data, write documentation, and produce a set of comprehensive examples from the various sensors

Mapping Systems:

Imagenex - 675kHz pencil beam mechanical scanned sonar
SM2000 - 200 kHz near bottom multibeam sonar
DSL-120A with SM2000 (replacing phase-bathymetry with near-bottom multibeam)
Doppler and Ring-Laser Gyro - attitude -> improved DR and LBL navigation data