Upgrades to National Deep Submergence Facility *Alvin* Overhaul Report

- Completed on schedule and budget
- Upgrades/Repairs/Inspections
 - All components inspected & rebuilt
 - Variable ballast 4-way valve replaced
 - Motor controllers upgraded
 - 3-chip video upgrade on pan/tilt
 - Solid state relay upgrade
 - Frame repairs
 - Hull (dye penetrant, ultrasonic, X-ray); 2-yr limited inspection requirement in addition to 5-yr full inspection
- Certification
 - Functional audit
 - Certification survey
 - Sea trials (no "tempmods")
 - Inclining experiment







