



# Loss of *Nereus* Analyses



Premise: To the extent possible, determination of the cause(s) of loss of *Nereus* has significant value for the future of deep submergence.

Premise: Besides the loss of *Nereus*, performance issues on the HADES cruise warranted a lessons learned review

Approach:

- Failure Mode Analysis
- Internal Review
- External Review



# *Loss of Nereus* Failure Mode Analysis



## Lead by WHOI DSL

### Context

- Review design
- Vehicle dive history
- Capture all available information and data potentially relevant to the loss

### Method - Decision Tree Analysis

- Focus on implodable volumes
- Assign probabilities

### Conclusions

### Recommendations



# *Loss of Nereus* Internal Review



**Led by Dick Pittenger and Dan Fornari**

## **Purpose**

- Catalogue issues
- Root cause analysis
- Recommendations

## **Methods**

- Interviews
- Review of project documentation and financial data
- Synthesis and report

## **Results**

- Concept of operations
- Technical issues
- Management



# *Loss of Nereus* External Review



**Conducted by John Leadmon**

## **Method**

- Analysis
- Assessment
- Recommendations

## **Criteria**

- Project Management
- Leadership
- Organization
- Communication
- Procedures
- Planning
- Culture