

APPENDIX IX

1996-7 ALVIN/ROV/ATLANTIS Operations



*December 1996
DESSC Meeting*

*Deep Submergence
Group*

Woods Hole Oceanographic Institution

1990 1995 2000

Alvin usage ? ARC change to DESSC, strong use
Atlantis-II future? of Alvin. Depth inc. 4500m - 1994

Planning for New Deep R/V Atlantis
Submergence Support Ship

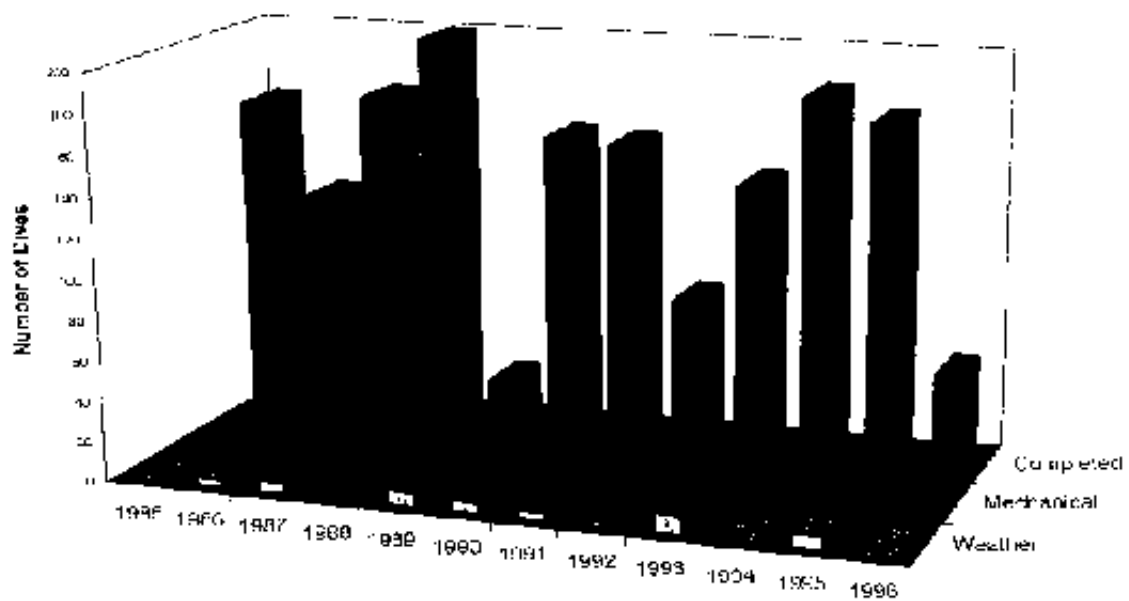
ROV Jason and
tethered vehicle
development

ROV Jason and
tethered vehicle
incorporation into
UNOLS Facilities
and "fly-away" use

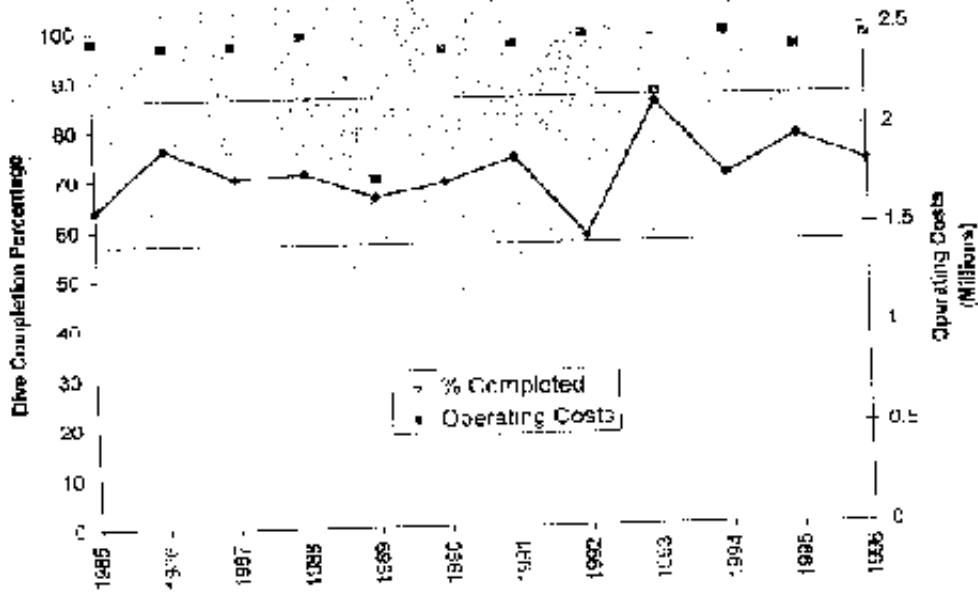
Merged Operations
of Alvin, ROV Jason,
Argo-II, DSL-120
on R/V Atlantis
and "fly-away" cap.
for ROV and tethered
vehicles

**U.S. National Deep Submergence
Facilities - Where we have been &
Where we are going**

ALVIN Dives Lost vs. Completed



**ALVIN Dive Completion Percentage
& Operating Cost Range**



WHD Marine Ops
3/96

ALVIN - 1996

- ✓ **Days at Sea:** 86
- ✓ **Assigned Operating Days:** 78
- ✓ **Scientific Cruises:** 5
- ✓ **Dives Completed:** 49 of 50
- ✓ **Average Dive Duration:** 7.2 hr
- ✓ **Average Bottom Time:** 4.7 hr
- ✓ **Reasons for Dive Termination
(final 17 dives):**
 - 16 *Work Complete*
 - 1 *Ran Out of Time*

ROVs - 1996

● Luster '96 (Fornari/Humphris) R/V KNORR

● On Bottom:

7.7 days of DSL120

4.9 days of Argo-II

4.7 days of Jason

● Transponders launched/surveyed:	25
Hydrothermal water samples:	30
Biological sample containers:	11

● TN-064 (Johnson/Tivey) R/V THOMPSON

● On Bottom:

8 days of Jason

● Transponders launched/surveyed:	19
Magnetometers recovered/deployed:	5/4
Thermal blanket deployments:	13
Rock samples (kg):	118

● Sojourn (Haymon/Macdonald) R/V MELVILLE

● On Bottom:

3 days of DSL120

15 days of Argo-II

0.4 days of Medea

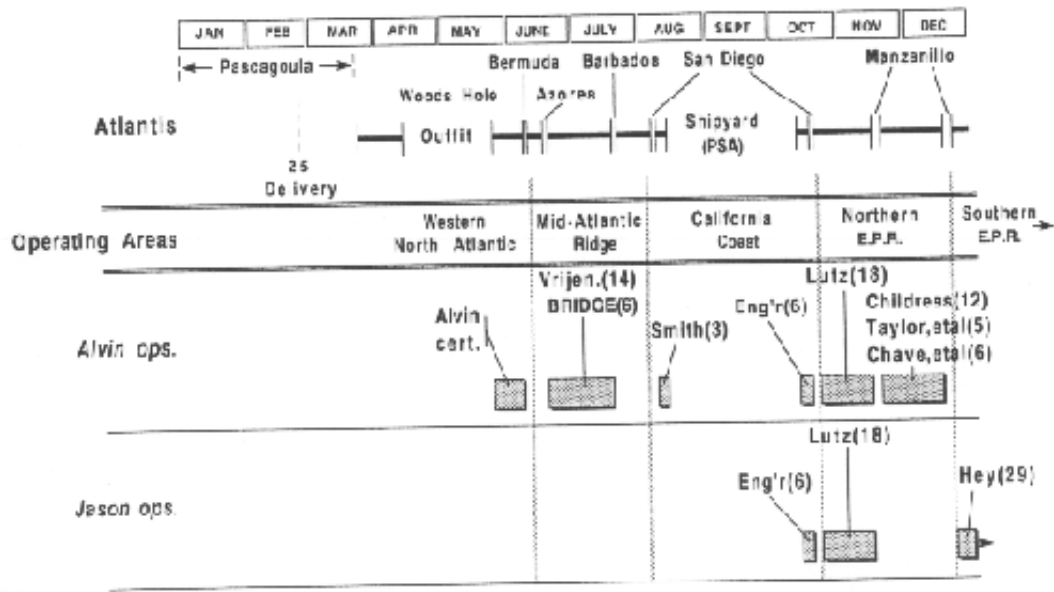
● Transponders launched/surveyed:	18
Length of ridge crest surveyed (km):	137
Electronic still images:	96,112
OBS recovered with Medea:	2

1997

R/V ATLANTIS

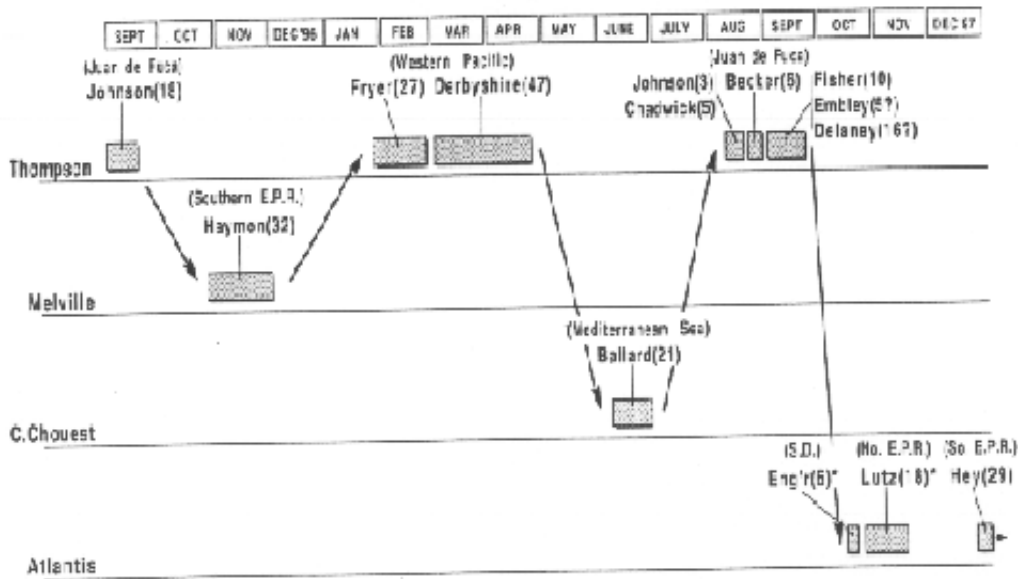
1997

Proposed Ship Schedule



Note: #dives or days-on-sta. are noted in parenthesis

1996 & 1997 Jason/Argo/DSL-120



* Potential joint Avim ops.

Note: dives or days-on-sta. are noted in parentheses

1998
R/V ATLANTIS
Funded Alvin/ROV Dive Requests

Southern East Pacific Rise

<u>P.I.</u>	<u># sci.days</u>	<u>Vehicles</u>
R. Hey, UH	29	DSL-120
J. Sinton, UH	25	Alvin + DSL-120
M. Lilley, UW	27	Alvin
R. Vrijenhoek, Rutgers	14	Alvin
J. Lupton, PMEL *	20	Alvin + Jason
T. Urabe, JGS **	7	Alvin
Other ***	85	Alvin + Jason + 120

* Pending proposal to NOAA

** Pending proposal to SAR, Japan

*** Total pending science days proposed to NSF

Northern East Pacific Rise

<u>P.I.</u>	<u># sci.days</u>	<u>Vehicles</u>
vanDover/Chave, UA (2nd of 2 yrs)	6	Alvin
R. Lutz, Rutgers (2nd of 3 yrs)	23	Jason

Equatorial Pacific (Hess Deep)

<u>P.I.</u>	<u># sci.days</u>	<u>Vehicles</u>
J. Karson/Duke	20	Alvin + Jason