ALVIN REVIEW COMMITTEE

Minutes of Meeting

May 7, 8, 9, 1986

Carriage House

Woods Hole Oceanographic Institution

Woods Hole, Massachusetts

The meeting was called to order by *Robert W. Corell, Chairman,* at 8:15 a.m., May 7, 1986. Committee members, funding agency representatives from NOAA, NSF and ONR, W.H.O.I. operator representatives and UNOLS Office staff present during the meeting:

ALVIN Review Committee:
R. W. Corell, Chairman
J. K. Cochran
J. W. Deming
J. Eckman *
D. Fornari *
M. Kurtz *
G. Weatherly
G. D. Grice, *ex-officio*

Agency Representatives:
E. Finkle, NOAA
R. Batiza, NSF
J. McMillan, NSF
P. Taylor, NSF
K. Kaulum, ONR

W.H.O.I. Operators
B. Walden
D. Moller

UNOLS Office
W. D. Barbee

*Substitutes selected by ARC Chairman for this review, meeting.

The ALVIN Review Committee Roster is Appendix I.

Welcome and Introduction. The Chairman, introduced substitute Committee reviewers James Eckman, Dan Fornari and Mark Kurtz at the beginning of his welcome and introduction. Substitute reviewers were essential to this year's ALVIN Committee review, because four regular ARC members, Peter Jumars, Dan Karig, William Ryan and Geoffrey Thompson, were on research cruises or had other unavoidable conflicts. The substitutes were selected through consultation among the absent ARC Members and the Chairman. The agenda (Appendix II) was reviewed. (During the meeting the sequence of agenda items was modified for convenience. Items are reported in the order that they were addressed.)

Review of Earlier ARC Recommendations for Work in 1987. Requests for ALVIN time totaling 190-200 dives had already been approved by the Committee at earlier reviews, but remained pending for scheduling during 1987 (or beyond). These requests, listed in Appendix III, were discussed together with information on science project funding status. The ARC agreed that all of the projects that they had earlier

- Increase by two days West Florida Escarpment Project to accommodate Jannasch, Karl, Lutz,

- Revised scheduling of Carney test dives,

- Deletion of Honjo project (withdrawn for 1986),

- Additional dive recommended for Aller project.

The affect of all these changes was to defer all or parts of the Nowell/Jumars, Carney and Thistle projects from late 1986 into 1987. *The ALVIN Review Committee, based on their earlier recommendations and discussion, endorsed the 1986 ALVIN schedule as presented.*

Review of Request for Dives in 1987. Dive requests for 1987, submitted for the May 1986 review, are summarized in Appendices V and VI. These requests were submitted in response to the UNOLS announcement: *Opportunities for Oceanographic Research DSV ALVIN, 1987* (Appendix VII). Twenty-two dive requests were received for a total of 289 dives. The requests were for investigations in the Mariana region, Lau Basin, Bonin Island Arc, western and central Pacific, Loihi Volcano, Gorda-Juan de Fuca system, Panama Basin, Jasper Seamount, the East Pacific Rise, Guyamas Basin, Galapagos and West Florida Escarpment (see Appendix V).

In addition to individual dive requests, the ARC received information from NSF, NOAA and ONR officials on the status of science funding for each of the requests.

The Committee reviewed the dive requests individually, in accordance with their Rules for Review (Appendix VIII).

The ARC recommended eleven of the dive requests (representing about 125 dives) for scheduling. Three of the requests had been recommended earlier and no additional review was made. Four requests were tabled without review. Four were not recommended. As noted above, requests totaling 190-200 dives had earlier been recommended by the Committee (see Appendix III).

Schedule Recommendations, 1987. Based both on new recommendations and earlier ones, a provisional schedule was developed for 1987 (Appendix IX). (The schedule in Appendix IX was prepared June 12, 1986. It reflects operational and logistics consideration to that date; it is essentially the same as the provisional one endorsed by the ARC at their May 1986 meeting.) The ALVIN/ATLANTIS II would take up work in California Basins, then begin transit westward across the Pacific with investigations, near Hawaii and in the Central Pacific enroute. The period April through August would be devoted to investigations in the Mariana region and in the Bonin Island Arc. ALVIN/ATLANTIS II would then return to the eastern Pacific for one project off the Oregon coast and end the operations year with a series of investigations off California. The ALVIN Review Committee anticipates that this provisional schedule will hold with, at the most, minor perturbations. The schedule is, however, dependent on: the completion without delay of the ambitious set of operations scheduled for 1986, operational and

Their report, *ALVIN '86: A Report on the Program's Status*, was available in draft form. ARC discussion of the report centered on:

- Suggestions that some issues concerning the ALVIN program or operations were not addressed in the report, but should be,
- Suggestions that some technical material included in the report is not appropriate to an ALVIN review, and
- Recommendations in *ALVIN '86* and ARC/UNOLS response thereto.

Issues Not Addressed. These issues include the one of interfacing for SEA BEAM operations on the ATLANTIS II among University of Rhode Island personnel (the NECOR operators), W.H.O.I., the ALVIN group and science users. Problems include cost, staffing, berths required, integration with ALVIN navigation, etc.

A second issue was that of a program to upgrade technical systems on the ALVIN and oversight of the program.

The final issue identified was that of insufficient technical support within the ALVIN group to realize essential technical improvements. The ALVIN group does an excellent job; they are simply too far extended to be able to address all essential technical developments.

The sense of the ALVIN Review Committee was that all of these issues should be addressed. The Committee suggested that all of the above issues be emphasized in a cover letter from the Chairman, Special ALVIN Study Committee to the sponsors of the study. (Note: Such a letter will cover distribution of the report.)

Technical Material in the Report. Questions were raised concerning especially material in the report on technologies for underwater investigations in shallow water. It was the sense of many on the ARC that this material was not appropriate to a review of the ALVIN program. It was noted, however, that such material was within the charge to the Special Study Committee, and it was entirely within that Committee's prerogatives to retain or delete such material. The ARC Chairman agreed to discuss the matter with the Special Study Committee. (Note: It was finally agreed between Chairmen of ARC and the Special Study Committee that the material should remain.)

Recommendations in the Report. The report contains principal recommendations concerning ALVIN Review Committee organization and function, and concerning an updated study of submersible science. The ARC accepted in principle both recommendations.

The ALVIN Review Committee (ARC) recommends that UNOLS endorse the recommendations of the ALVIN Special Study Committee that the ARC be renamed the ALVIN Advisory Committee (AAC). Further that the ARC (or AAC) establish two subcommittees, one for long range planning and the other for technology development. These subcommittees should be composed of members of the ARC (or AAC), should be established immediately, and should be charged with implementing the spirit of the Special Committee Report (Section III).

- ONR will support use of the ALVIN for JASON test operations at the TITANIC site,

- ONR believes that technology development is an important part of the ALVIN mission and this project is vital to JASON development,

- ONR sponsored missions at the TITANIC site (or other sites of comparable significance) will be conducted with sensitivity concerning the site.

The ALVIN Review Committee and SEA CLIFF. Earlier efforts by the ALVIN Review Committee to assist the Navy and ONR in developing a science program that would utilize SEA CLIFF and TURTLE were reviewed. (The ARC had organized and conducted workshops in winter, 1985-86 to generate planning information for SEA CLIFF operations in 1987 and beyond.) The report for these workshops indicated considerable interest from the scientific community, particularly in the 6,000 meter capability of the SEA CLIFF.

Later, arrangements were made to use SEA CLIFF in 1986 for work off the Oregon coast. This program apparently arose independently from the earlier ONR-ARC planning.

It was the sense of the Committee that a science program utilizing SEA CLIFF is deserving of a systematic planning effort, and should be more focused than it is now.

The ALVIN Review Committee reiterated its belief that the 6,000 meter capability of the SEA CLIFF is of critical importance to submersible science in the U.S. There is need for great care in planning and implementing a science program using these Navy assets. The forthright effort from the ocean science community in responding to ARC workshops in 1985-86 should be recognized by the Navy, and Notices of Interest should be followed up.

A scenario still seems obtainable wherein SEA CLIFF with a fully capable support ship would be available in 1987 for a major science investigation. The ARC cautions, however, that to achieve such an objective SEA CLIFF must, at an early date, demonstrate the ability to conduct ALVIN-level scientific operations in the 4-6,000 meter interval. This might best be done through modest but well-planned projects during 1986.

The interest in using SEA CLIFF (as demonstrated by the workshops) should be given consideration in selection of science investigations for 1987 operations. The selection process should be as open as can be attained.

On a related problem, the ARC restated its belief that much can be gained through an effective technological and operational interface between ALVIN and SEA CLIFF operators. The Committee urges the Navy and W.H.O.I. to work to achieve effective management of such an interface.

UNOLS Review Committee
for DSRV ALVIN

6/86

(First Meeting 2/19/75)

1975

	Term Expires
A.R. Richards, CH, Lehigh	7/78
C. L. Drake, Dartmouth	7/76
G. Grice, WHOI	7/78
R. R. Hessler, SIO	7/77
G. Keller, NOAA/AOML	7/76
S. Murphy, UW	7/76
C. Rooth, RSMAS	7/78
K. K. Turekian, Yale	7/77
T. J. van Andel, Stanford	7/77
A. E. Maxwell, WHOI, *ex-officio*	

1976

	Term Expires
A. R. Richards, CH, Lehigh	7/78
R. W. Corell, UNH	7/79
M. Gregg, UW	7/79
G. Grice, WHOI	7/78
D. Hayes, L-DGO	7/79
R. R. Hessler, SIO	7/77
G. Keller, OSU	7/77
K. K. Turekian, Yale	7/78
T. J. van Andel, Stanford (resigned 9/76)	
A. E. Maxwell, WHOI,*ex-officio*	

1977

	Term
R. W. Corell, CH, UNH	7/76-6/79
J. B. Corliss, OSU	7/77-6/80
M. C. Gregg, UW	7/76-6/79
G. D. Grice, WHOI	2/75-6/78
D. E. Hayes, L-DGO	7/76-6/79
A. F. Richards, Lehigh	2/75-6/78
K. K. Turekian, Yale	2/75-6/78
R. D. Turner, Harvard	7/77-6/80
A. E. Maxwell, WHOI, *ex-officio*	

1978

	Term
R. W. Corell, CH, UNH	7/76-6/79
J. B. Corliss, OSU	7/77-6/80
J. M. Edmond, MIT	7/78-6/81
M. C. Gregg, UW	7/76-6/79
D. E. Hayes, L-DGO	7/76-6/79
K. C. MacDonald, Scripps	7/78-6/81
D. C. Rhoads, Yale	7/78-6/81
R. C. Turner, Harvard	7/77-6/80
A. E. Maxwell, WHOI, *ex-officio*	

1979

	Term
R. W. Corell, CH, UNH	7/76-6/82
R. N. Anderson, L-DGO	7/79-6/82
J. B. Corliss, OSU	7/77-6/80
J. M. Edmond, MIT	7/78-6/81
K. C. MacDonald, SIO	7/78-6/81
D. C. Rhoads, Yale	7/78-6/81
R. D. Turner, Harvard	7/77-6/80
M. Wimbush, URI	7/79-6/82
A. E. Maxwell, *ex-officio*	

1980

	Term
R. W. Corell, CH, UNH	7/76-6/82
R. N. Anderson, L-DGO	7/79-6/82
J. M. Edmond, MIT	7/78-6/81
D. E. Karig, Cornell	7/80-6/83
K. C. MacDonald, UCSB	7/78-6/81
D. C. Rhoads, Yale	7/78-6/81
G. T. Rowe, Brookhaven	7/80-6/83
M. Wimbush, URI	7/79-6/82
A. E. Maxwell, WHOI, *ex-officio*	

1981

	Term Expires
R. W. Corell, CH, UNH	7/76-6/82
R. C. Aller, U. Chicago	7/81-6/84
R. N. Anderson, L-DGO	7/79-6/82
D. E. Karig, Cornell	7/80-6/83
G. T. Rowe, Brookhaven	7/80-6/83
F. L. Sayles, WHOI	7/81-6/84
M. Wimbush, URI	7/79-6/82
A.A. Yayanos, Scripps	7/81-6/84
G. D. Grice, WHOI, *ex-officio*	

1982

	Term
R. W. Corell, CH, UNH	7/82-6/85
R. C. Aller, U. Chicago	7/81-6/84
J. K. Weissel, L-DGO	7/82-6/85
D. E. Karig, Cornell	7/80-6/83
G. T. Rowe, Brookhaven	7/80-6/83
F. L. Sayles, WHOI	7//81-6/84
M. Wimbush, URI	7/82-6/85
A.A. Yayanos, Scripps	7/81-6/84
G. D. Grice, WHOI, *ex-officio*	

1983

	Term
R. W. Corell, CH, UNH	7/76-6/85
R. C. Aller, U. Chicago	7/81-6/84
P. A. Jumars, UW	7/83-6/86
D. E. Karig, Cornell	7/80-6/86
F. L. Sayles, WHOI	7/81-6/84
J. Weissel, L-DGO	7/82-6/85
M. Wimbush, URI	7/79-6/85
A. A. Yayanos, Scripps	7/81-6/84
G. D. Grice, WHOI, *ex-officio*	

1984

	Term
R. W. Corell, CH, UNH	7/76-6/85
J. L. Cochran, SUNY	7/84-6/87
J. W. Deming, Johns Hopkins	7/84-6/87
P. A. Jumars, UW	7/83-6/86
D. E. Karig, Cornell	7/80-6/86
G. Thompson, WHOI	7/84-6/87
J. Weissel, L-DGO	7/84-6/85
M. Wimbush, URI	7/79-6/85
G. D. Grice, *ex-officio*	

1985

	Term
R. W. Corell, CH, UNH	7/76-6/88
J. K. Cochran, SUNY	7/84-6/87
J. W. Deming, JHU	7/84-6/87
P. A. Jumars, UW	7/83-6/86
D. E. Karig, Cornell	7/80-6/86
W. B. F. Ryan, L-DGO	7/85-6/88
G. Thompson, WHOI	7/84-6/87
G. L. Weatherly, FSU	7/85-6/88
G. D. Grice, WHOI, *ex-officio*	

UNIVERSITY-NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM

An association of institutions
for the coordination and support
of university oceanographic facilities

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ALVIN REVIEW COMMITTEE
0800, May 7,8,9, 1986
Woods Hole, MA

Welcome and Introduction: *Chair, Robert W. Corell*

Report on 1985 season, 1986 ALVIN overhaul and 1986 ALVIN/ATLANTIS II Operations: *Jack Donnelly and Barrie Walden will report briefly on new ALVIN capabilities and on the status of 1986 operations.*

Review of earlier ARC recommendations for work in 1987: *Robert Corell, Bill Barbee and Barrie Walden will present summaries of those projects already recommended for scheduling in 1987. (Includes work off California coast, Hawaii and mid-Pacific, western Pacific, Gorda-Juan de Fuca, EPR.) Agency reps will provide up-to-date funding status for those projects.*

Review of Requests for Dives in 1987: *Committee discussion and review on new or modified dive requests already distributed.*

Schedule Recommendations for 1987: 1. *Based on their reviews of proposals and earlier recommendations together with operational and logistical information from W.H.O.I. the ARC will develop their recommendations for scheduling. W.H.O.I. will develop candidate schedules for ARC review.*

Comments on ALVIN program by Funding Agency Representative: *K. Kaulum, ONR; J. McMillan, NSF and E. Finkle, NOAA.*

Operational policies: *ARC discussion of pertinent ALVIN/ATLANTIS II operating policies(e.g., non diving operations, night time diving, users manual, data, sampling and archiving). Recommendations for Funding Agencies and Operators as decided.*

Recommendations for new ARC Members: *Peter Jumars' and Dan Karig's terms expire. Recommendations for new appointment or re-appointments. If the Committee agrees that ARC should be re-structured (expanded), additional candidates might be necessary.*

Review of the Report: *ALVIN '86: ARC will review the report of the Special Committee (Draft Copy furnished). Develop recommendations for presentation to UNOLS on restructuring the ARC, improving advanced planning and redoing the* S^3 *report.*

Planning for 1988 (and beyond): *On the basis of 1987 schedule recommendations, dive requests tabled at this meeting, Notices of Interest received over the winter (See Workshop Report 1986) and operational considerations, develop PROSPECTUS for 1988.*

Appendix III

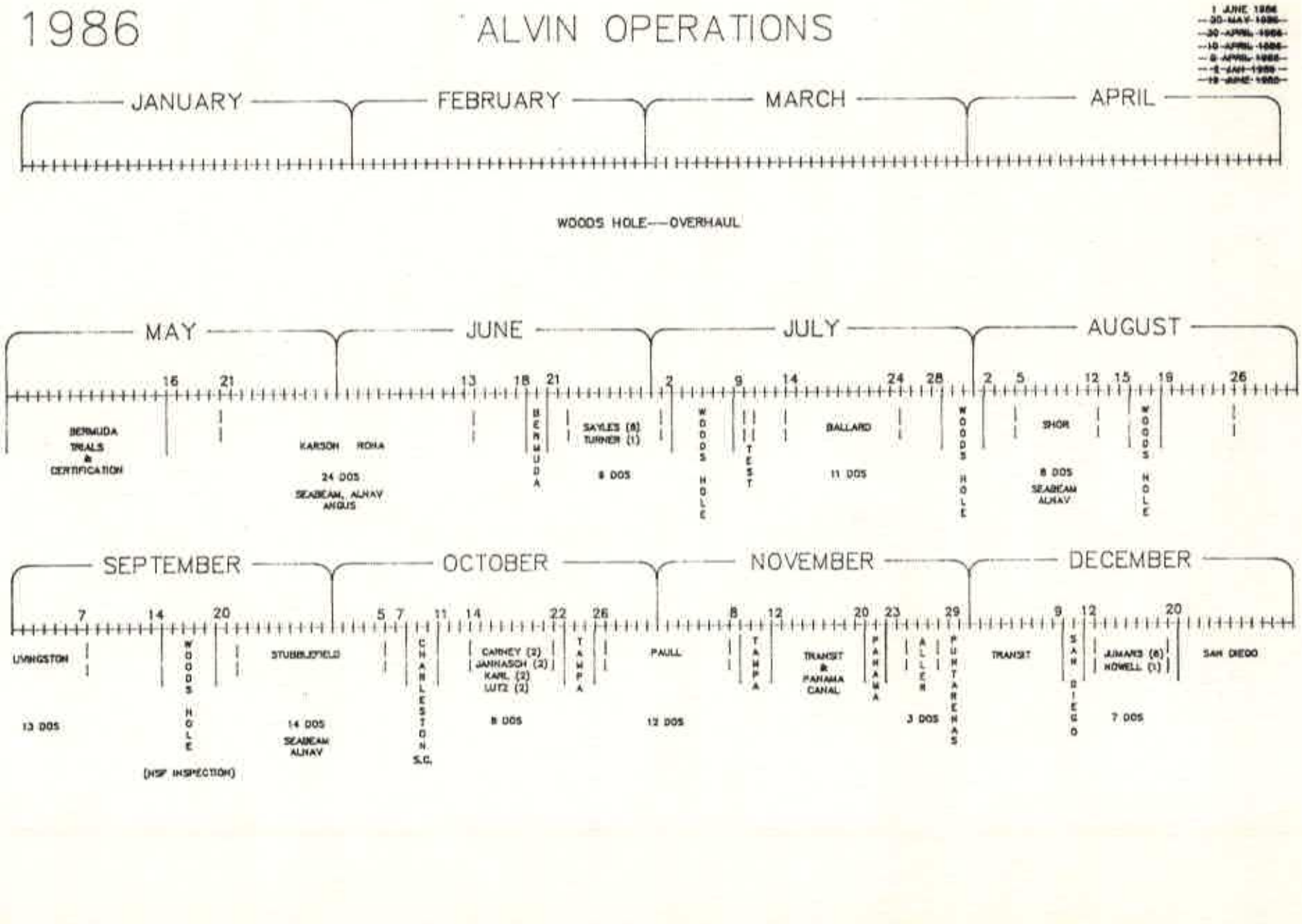
ALVIN SHIPTIME REQUESTS RECOMMENDED EARLIER

May, 1986

	INVESTIGATOR	ASSOCIATES	AREA	PURPOSE	SPONSOR	DATE	ALTERNATE	ESCORT*	DIVES	COMMITTEE ACTION
85-1	Smith, K. L.	Carlucci, A.	Near Honolulu (See 1 March, 1983 detailed request)	Ecological energetics of deep-sea benthic boundary layer (BBL)	NSF	6/85	9/85		14	Recommended for scheduling
85-3	Taylor, B.	Fryer, P. Hussong, D. Gill, J. Honza, E. Tamaki, K. Yuasa, M.	Near Yokohama, 31°N, 140°E.	Rifting processes in the Bonin Island Arc	NSF	Summer 1985	Fall 1985	A/II ALNAV	12	Recommended for Scheduling
85-7	Fryer, P.	Gill, J.	21° 35'N, 143° 40'E, near Aguana, Guam	Arc volcanism: submarine volcanoes in the Mariana Arc.	NSF	5/1-14	4/85-6/85	Special equip. of Ballard's	6-10	Recommended for Scheduling
85-14	Thistle, D.	Eckman, J. E.	32° 37.3N 117° 31.2W	Hydrodynamic and biological effects of persistant biogenic structure on a bathyal harpacticoid codepod community	NSF	late 1985, early 1986	1 month separation needed		12 (6 plus 6)	Recommended 12/84
85-27	Lonsdale, P.	Hawkins, J. et al.	Mariana Back-Arc, Trough	Spreading center processes and products at Mariana Trough Back Arc Basin. Volcanic, tectonic and hydrothermal processes	NSF	When ALVIN there			12	Recommended for Scheduling
85-31	Craig, H.	Welhan, J. Kim, Kyung-Ryal	Mariana Trough 18°N, 144°E	Submersible studies of hydrothermal vents and basalts in Mariana Trough	NSF	Jan.-April 1985	Through June 1985		10	Recommended for Scheduling
85-32	Craig, H.	Various	Loihi Seamount	Nature of hydrothermal gases	NSF	1985			5 (for SIO Program)	Recommended for Scheduling
85-34	Hessler, R. P.		Mariana Trough 18° 10N, 144° 40E	Megafauna of Mariana Trough hydrothermal vents Composition distribution of vents and adjacent rocky bottoms	NSF	1985			4-7	Recommended for Scheduling
85-35	Hussong, D.		Mariana Fore-Arc 19° 20N, 146° E, 30-147°E	Studies of tectonic features in the northern Mariana fore-arc	NSF	4/85	April-June		14	Recommended for Scheduling
86-1	Garcia, M.	Craig, H.	Loihi Volcano 155° 16'W, 18° 56'N	History of compositional variation of lavas from Loihi volcano	NSF	April-July	?		2	Recommended (2 add'l recommended in 1986)

Appendix IV

1986 ALVIN OPERATIONS



ALVIN SHIPTIME REQUESTS
FOR 1987
By area, discipline

Mariana Region

1.	Leinen	geology	16 dives
4.	Stakes*	geology	17 Dives
21.	Taylor	geology	8 dives
		subtotal	24 dives

* recommended

Harrie Guyot (W. Pacific)

2.	Schlanger	geology	8 dives
		subtotal	8 dives

Loihi (Hawaii)

6.	Garcia*	geology	2 dives
		subtotal	2 dives

* 2 recommended earlier

Galapagos

9.	Childress	biology	28 dives

EPR

17.	Thompson	geology	20 dives
	(already recommended)		0 dives

Guayamas Basin

14a.	Sayles	geochem, bio	14 dives
14b.	Jannasch	microbio	10 dives
		subtotal	24 dives

Lau Basin

10.	Hawkins	geology	24 dives
		subtotal	24 dives

Central Pacific

3.	Wishner	biology	4 dives
12.	Levin	biology	4 dives
		subtotal	8 dives

Juan de Fuca - Gorda

7.	Johnson	geology	15 dives	
11.	Hammond	geology	20 dives	
15.	Baross	microbio	14 dives	
16	Delaney	geology	16 dives	
18	Morton	geology	17 dives	
20	Edmond	geochem	14 dives	(withdrawn)
		subtotal	96 dives	

Jasper Seamount (NE Pacific)

5.	Smith, K.	biology	12 dives
19.	Hammond, D-	biol	6 dives
		subtotal	18 dives

West Florida Escarpment

13.	Hecker	biology	14 dives
		subtotal	14 dives

Appendix VI

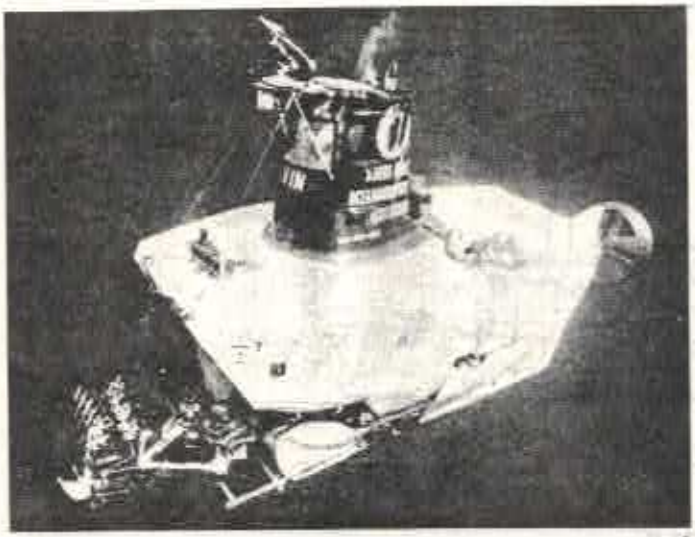
SUMMARY
ALVIN SHIPTIME REQUESTS

	Investigator	Associates	Area	Purpose	Sponsor	Date	Alternate	No. Dives	Remarks
1.	Leinen, M.	McDuff, R. Delaney, J. Becker, K.	Mariana Trough 18°-18°03N', 144°17'-144°19'E	Investigation of off-axis hydrothermal field on 3 my old crust W. of Mariana Trough spreading center, etc.	NSF	early 1987	-	16	Recommended
2.	Schlanger, S. O.	Campbell, J. F. Premoli-Sylva I.	Harrie, Guyot 5°30'N, 172°E	Geological history of the cent. Marshall Islands: Studies of Harrie Guyot, a drowning atoll.	NSF	Apr-May 1987	June-Aug 1987	8	Not Recommended
3.	Wishner, K.	Gowing, M. (also, W. K. Smith request)	Horizon Guyot and Magellan Rise, Cent. N. Pacific	Ingestion rates and trophic relationships of deep-sea benthic boundary layer.	NSF	with K. Smith	-	4	Tabled
4.	Stakes, D.	Ballard, R. Nelson, W. Fryer, P.	Mariana Back arc 18°17'-17°45'N, 145°-144°15'E	Investigation of the Mariana back arc spreading center. Structural, volcanic, geochemical and hydrothermal characteristics.	NSF	Feb 1987	March 1987	17	Recommended in 1985; Tabled
5.	Smith, K. L.	Erikson, C. Butman, C. Gross, T. Williams, S.	Jasper Seamount 30°N, 122°W	Experimentally test relationships between average current conditions and animal abundance and identify mechaniams by which currents can affect suspension feeders.	ONR	Summer 1987	Fall 1987	12	Recommended
6.	Garcia, M.	Craig, H. Fornari, D.	Loihi Volcano 18°56'N 155°16'W	History of Compositional Variation of lavas from Loihi. Collect lavas from caldera/crater walls in stratigraphic order to establish the compositional evolutionary sequence for early stage of Hawaiian volcanoes.	NSF	Apr-July 1987	Jan-Feb	4	Recommended
7.	Johnson, P. Schultz, A.	Karlin, R. Lewis, B.	Northern Juan de Fuca Ridge 48°30'N, 128°30'W	Detailed geophysical (magnetometer and self-potential) study of heavily sedimented spreading center: Middle Valley on northern Juan de Fuca Ridge.	NSF	July-Aug 1987	June-Sept	15	Not Recommended
8.	Aller, R.	Honjo, S. Grassle, C. F. Whitlach, R.	Panama Basin 5°20'N 81°55'W	Effects of animal-sediment interactions on geochemical processes near the sediment water interface.	NSF	1986	-	4	Not Reviewed; Scheduled in 1986
9.	Childress, J.	Somero, G. Fellbeck, H. Fisher, C. Vetter, R. Karl, D. Hessler, R. Johnson, K.	Galapagos Rift	Hydrothermal vent biology coordinated study of ecology, chemistry, physiology, and biochemistry of the animals at the Rose Garden vent site.	NSF	early 1988	late 1987	28	Recommended (part.)

SUMMARY - ALVIN SHIPTIME REQUESTS - cont.

	Investigator	Associates	Area	Purpose	Sponsor	Date	Alternate	No. Dives	Remarks
16.	Delaney, J.	McDuff, R. E. McClain, J. S. Dymond, J. Schultz, A. Baross, J. A. Lewis, B. T. R.	Near 48°N, 130°W	Test the hypothesis that variations in earthquake activity and hydrothermal output at submarine spreading centers are intimately linked linked in time and space	NOAA	July 87	Aug 87	16	Recommended
17.	Bryan, W.B. Thompson, G. Ballard, R.	Francheteau, J. Hekinian, R. Sigurdsson, H.	East Pacific Rise Axis, 10-12°, 104°W	Geochemical, petrological and structural variation associated with axial processes on the East Pacific Rise	NSF	Fall 87		20	Not Reviewed; Recommended in 1985
18.	Morton, J.	Holmes, M. Normark, W. R. Koski, R. A. Shanks, W. C. Hammond, S. R. Curl, H. C. Massoth, G. J.	40°45'N, 127°31'W-42°46'N, 126°43'N	USGS Metallogenesis Program and NOAA VENTS Program. The proposed ALVIN dives are to conduct detailed geologic mapping, sampling, and hydrothermal effluent monitoring at the Gorda Ridge	USGS	Aug 87	Jul 15-1 Oct, 87	17	Not Recommended
19.	Hammond, D.	Berelson, W.	San Nicolas Basin, S. Cal. borderland, 33°, 119°W	Use ALVIN to emplace benthic flux chambers over specific bioturbation features on seafloor; observe operation of free vehicle benthic flux chamber	NSF	1987		6	Recommended
20.	Edmond, J.	Morton, J. Gieskes, J. Abbot, D.	N. Gorda Ridge, 42°50'N, 126° 40'W & 41°N, 127° 30'W, Escanaba Trough	Investigation of Gorda Ridge hydrothermal systems. Chemistry of hot springs on Northern Gorda Ridge and Escanaba Trough. Collaborative program with USGS.	NSF	Aug-Sept 1987	Jul-Oct 1987	14	Tabled (Withdrawn)
21.	Taylor, B.	Fryer, P.	Bonin Island Arc, 40°N, 140°E	Investigation of rifting processes in the Bonin Island Arc.	NSF	1987		8	Recommended

The University—National Oceanographic Laboratory System



Opportunities for Oceanographic Research

DSV ALVIN

at the Woods Hole Oceanographic Institution

1987

The Deep Submergence Vehicle ALVIN

The Deep Submergence Vehicle ALVIN, based at the Woods Hole Oceanographic Institution, is designated a UNOLS National Oceanographic Facility. Diving time is available for qualified research projects selected on the basis of scientific merit and compatibility of the proposed research.

ALVIN is owned by the U.S. Navy under the purview of the Office of Naval Research and is operated by the Woods Hole Oceanographic Institution. Operations are supported under a Memorandum of Understanding among the National Science Foundation, the National Oceanic and Atmospheric Administration and the Office of Naval Research.

Planning and Scheduling for ALVIN

The UNOLS ALVIN Review Committee (ARC) makes recommendation for ALVIN-ATLANTIS II areas of operation two and three years in advance and makes schedule recommendations generally one year in advance of the operating year. Over the last several years the task of matching dives available on ALVIN with requests from skilled individual investigators has become critical and requires careful advanced planning.

As one basis for advanced planning the ARC conducts annual workshops (December, 1985 and January, 1986 for this planning cycle) to solicit interest in using ALVIN two, three and more years into the future. On the basis of these workshops and Notices of Intent, the ALVIN Review Committee will, early each year issue a *PROSPECTUS* outlining interest in and the ARC's recommended tentative plans for ALVIN two and three years in advance (i.e., the 1986 *PROSPECTUS* will recommend broad areas of operation for 1988 and beyond.)

Through this *Opportunities for Oceanographic Research, DSV ALVIN* the ARC solicits requests for ALVIN dives, to be reviewed by the Committee in May, 1986. On the basis of that review, the ARC will make 1987 schedule recommendations to the three funding agencies and to the W.H.O.I. operators.

Recent and Scheduled Operations

At their May, 1985 meeting, the ALVIN Review Committee reviewed and made recommendations on *Alvin Time Requests* for operators in both 1986 and 1987. On the basis of recommendations for work in the Atlantic and eastern Pacific, a schedule was developed and distributed for 1986. A number of ARC - recommended *Time Requests* remain for work in Pacific, to be scheduled in 1987.

The 1985 ALVIN diving program, supported by the ATLANTIS II, was highly successful and effective. Operations were conducted in the eastern Pacific, from basins off California to the vicinity of the Galapagos Islands. In October the ATLANTIS II, with ALVIN, returned to Woods Hole for maintenance and inspection, and for modifications and refurbishments to ALVIN. It is anticipated that work will be completed on ALVIN in about April, 1986. ATLANTIS II and ALVIN will then take up operations on their 1986 schedule.

Requests for 1987

The ALVIN Review Committee has recommended the following program for 1987: At the beginning of the year, complete already-recommended (and initially scheduled for 1986) work in the basins off California. Then begin transit for the western Pacific, conducting recommended dive programs in the vicinity of the Hawaiian Islands and in the central Pacific enroute. Conduct an extensive dive program in the Mariana region, based on dive requests approved in 1984 and 1985. Return to the eastern Pacific to take up work that may include dives for investigation off the Washington-Oregon coasts, off California and on the East Pacific Rise.

The ARC invites ALVIN Time Requests for 1987 only for investigations generally along the ATLANTIS II expedition track through the Pacific. Ship Time Requests for as many as 140 dives recommended in 1984 or 1985 would be scheduled in 1987. Investigators associated with those already-recommended Time Requests need not re-submit although they may wish to provide updated research plans or funding information.

ALVIN Time Requests through UNOLS are for the use of the facility only and no research or travel funding is implied. *Associated research proposals should be submitted in a timely fashion through usual channels to funding agencies. (NSF has re-iterated their policy that proposals involving the use of UNOLS ships must meet the proposal target date of June, preceding year.)*

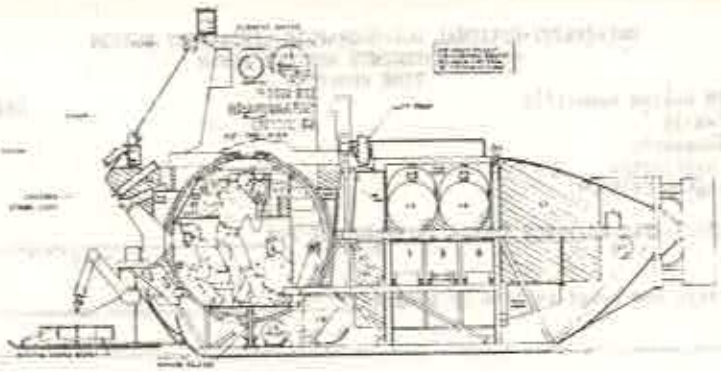
Time requests will be reviewed by the ARC at their May, 1986 meetings to recommend projects. Criteria for the review include scientific merit and suitability for ALVIN/ATLANTIS II. The committee will make schedule recommendations based on remaining Requests recommended in 1984 and 1985 together with newly submitted Requests recommended in May, 1986.

Principal Investigators are expected to meet pre- and post- cruise obligations that may exist for operations within jurisdiction of foreign states.

Requests for 1987 must be received in the UNOLS Office by April 15, 1986. Requests should include the Request form or a copy together with the additional information on the intended investigation as requested in this announcement. Failure to meet the submission deadline will jeopardize consideration of the Time Request. Additional planning information will be provided prior to a call for 1988 Time Requests. Requests for 1988 Time received at the May, 1986 review will be tabled.

Proposal submissions should be addressed to:

Chairman, ALVIN Review Committee
UNOLS Office, WB-15
School of Oceanography
University of Washington
Seattle, Washington 98195
Telephone: (206) 543-2201



DSV ALVIN

SUBMISSION OF ALVIN TIME REQUESTS

Requests for the use of DSV ALVIN should be initiated by sending a completed time request form (copy overleaf) to: Chairman, ALVIN Review Committee, c/o UNOLS Office, WB-15, School of Oceanography, University of Washington, Seattle, WA 98195. Requests may be made by scientists and engineers at any university or research institution in the United States, and should be supported by a research proposal (preferred length: 4-8 pages, single spaced for items 1 to 6) which specifically addresses each of the following:

1. The nature and significance of the proposed research;
2. The scientific questions being asked and the approaches that would be used toward their resolution;
3. Justifications of the need for ALVIN to do this work;
4. The research site(s) and its justification;
5. Number of dives required, justification for the number of dives and any seasonal considerations;
6. Likely requirements for future ALVIN dives (not requested here) for completion of the research;
7. Proposed number of scientists and engineers in the party;
8. Curricula vitae of principal participants;
9. Potential or current support for the proposed research effort;
10. List of publications resulting from any previous ALVIN work;
11. Any special engineering required for dive operations;

NOTE: (1) If operations are to be carried out in foreign waters, the required clearances should be requested as early as possible. Collaboration with foreign scientists is encouraged.

(2) If the program is not already funded, a comprehensive proposal must be submitted by the investigator to his sponsoring agency in the conventional way. The ALVIN Review Committee will submit scheduling recommendations for consideration by the research sponsor. Final scheduling depends on approval of the pertinent research proposal by the funding agency.

ALVIN Review Committee

R. W. Corell, University of New Hampshire
J. K. Cochran, State University of New York, Stony Brook
J. W. Deming, Johns Hopkins University
P. A. Jumars, University of Washington
D. E. Karig, Cornell University
W. F. B. Ryan, Lamont-Doherty Geological Observatory
G. Thompson, Woods Hole Oceanographic Institution
G. Weatherly, Florida State University
G. Grice, Woods Hole Oceanographic Institution, *ex-officio*

Appendix VIII

May 7, 1985

Rules for Review of ALVIN Dive Requests
ALVIN Review Committee

1. Requests for ALVIN dives, having been solicited by the ALVIN Flyer will be reviewed annually, and principally at the ARC meeting held for that purpose in about May.

2. Extraordinary requests (e.g., those for which a later submission is warranted, or those for which ARC recommendations and funding decisions do not agree) will be reviewed at ad hoc meetings either by telephone or opportunistic assembly. The Committee discourages late submissions.

3. There is potential for conflict of interest on any dive request originating at a Committee member's institution or if any investigator listed on the request is from a member's institution.

4. The Chair will raise the question of conflict of interest at the beginning of consideration on each request for dives. Notes for the meeting will reflect these queries and actions of the member(s) involved.

5. If a Committee member is listed on a request (or is, in fact, actively involved) that member will be excused from the room for all discussion, consideration and voting on that request.

6. For requests originating at Committee member(s)' institutions, or with investigators from their institutions, those Committee members so connected will be excused from the room for all discussion, consideration and voting on that request except that at the invitation of the balance of the the Committee (and with that member's concurrence) mambers connected only by institutional affiliation may comment on requests. However, in no case will those members vote on the request in question.

7. If there remains a question concerning conflict of interest concerning any member(s) for an individual request for dives, it will be decided by vote of the balance of the Review Committee.

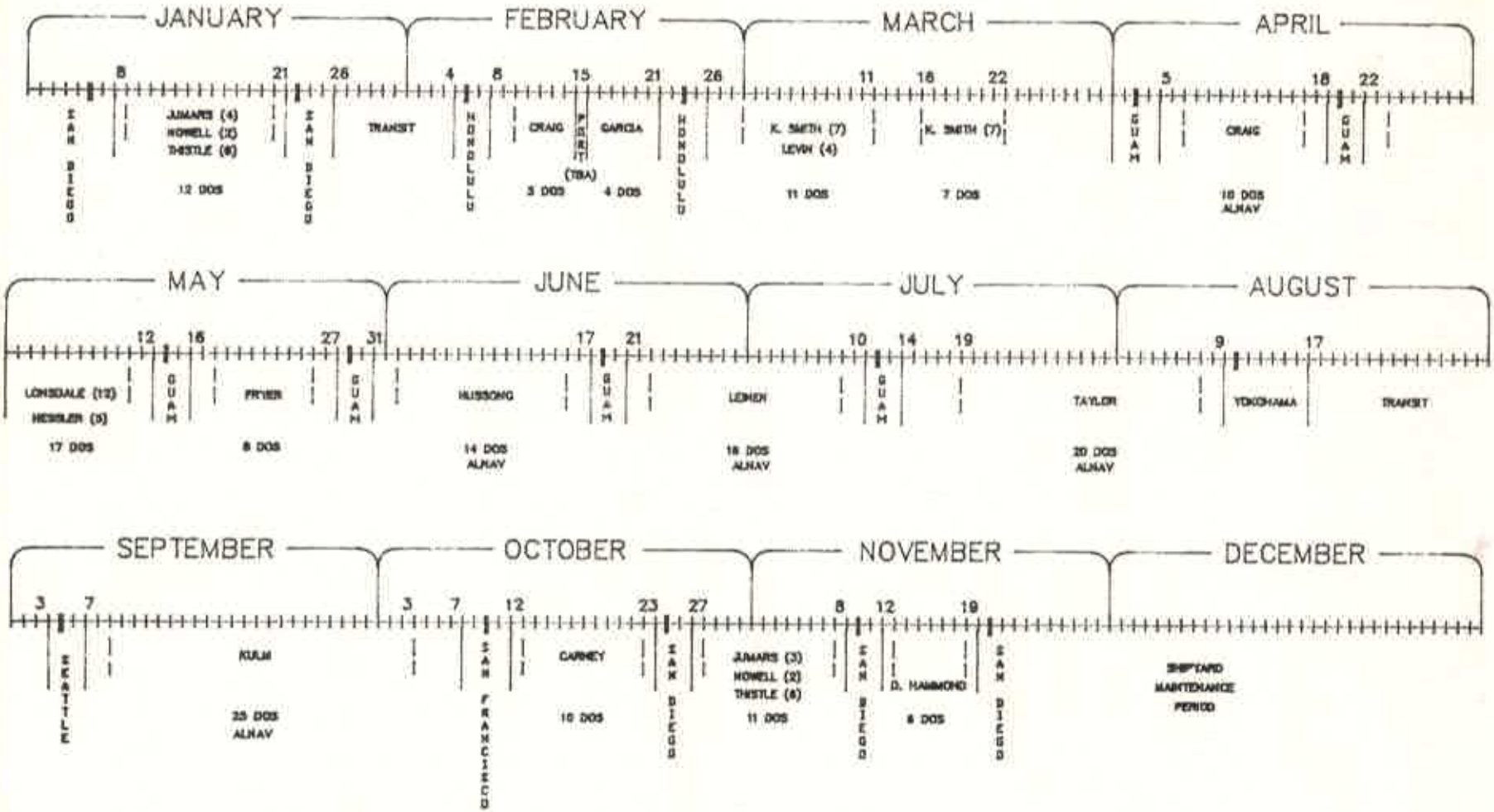
8. Voting Committee members will vote to rank individual requests for dives as:

    1. Outstanding
    2. Excellent
    3. Fair
    4. Poorest Ranking
    5. Tabled - Not Ranked

1987

TENTATIVE *
ALVIN OPERATIONS

12 JUNE 1986
-- 8-MAY-1986 --



* Based upon requests for ALVIN time received by the UNOLS ALVIN REVIEW COMMITTEE and therefore subject to revisions resulting from supporting agency funding decisions.