

JOIDES  
Executive Committee Meeting  
1-2 September 1982  
Kyoto, Japan

Preliminary Agenda

Wednesday, 1 September 82 (8:30 AM)

- A. Preliminary Business
  - 1. Welcoming remarks
  - 2. Adopt agenda
  - 3. Approve Minutes of 21-22 May EXCOM meeting in Washington, D.C.
- B. National Science Foundation report (A. Shinn)
- C. Deep Sea Drilling Project report (M. Peterson)
- D. Planning Committee report (J. Honnorez)
- E. Member-country reports
- F. JOIDES Membership Committee report (A. Shinn).

Thursday, 2 September 82 (8:30 AM)

- G. Advanced Ocean Drilling Program
  - 1. Role of JOI, Inc. in AODP management structure [compare motions 4 p. 28 and p. 29 EXCOM minutes, and motions 376A and 376B p. 23 PCOM minutes]
  - 2. Funding of Science and Technology during hiatus period, and the program itself.
  - 3. Policy for recruitment of new non-U.S. members
  - 4. Recommendations to PCOM about phasing out existing panels and working groups and phasing in skeleton of new advisory structure.
  - 5. Coordination between ocean and continental drilling programs (e.g., Continental Scientific Drilling Committee of U.S. NAS).
- H. Items not covered above.
- I. Future meetings.

JOIDES Office  
Rosenstiel School of Marine and Atmospheric Science  
Miami, FL 33149  
(305) 350-7575, 350-7576

DRAFT MINUTES

JOIDES Executive Committee Meeting  
1-2 September 1982  
Kyoto, Japan

Members Present

- A. Berman (Chairman, Rosenstiel School of Marine and Atmospheric Science)
- J. Baker (University of Washington)
- J. Debyser (Centre National pour l'Exploitation - France)
- H. Durbaum (Bundesanstalt fur Geowissenschaften und Rohstoffe-- Federal Republic of Germany)
- R. Heath (Oregon State University)
- C. Hellsley (Hawaii Institute of Geophysics, U. Hawaii)
- P. Kent (United Kingdom)
- A. Maxwell (University of Texas)
- W. Merrell (Texas A&M University)
- N. Nasu (Ocean Research Institute, Japan)
- W. Nierenberg (Scripps Institution of Oceanography)
- M. Peterson (Deep Sea Drilling Project, SIO, non-voting member)
- B. Raleigh (Lamont-Doherty Geological Observatory)

Member Absent

(U.S.S.R. representative)

Liaison

- W. Hay (Joint Oceanographic Institutions)
- A. Shinn (National Science Foundation)
- J. Honnorez (Planning Committee)

JOIDES Office

- D. Marszalek (JOIDES Science Coordinator)

Guest

- J. Clotworthy (Joint Oceanographic Institutions)

Meeting Support Staff

- D. Rucker (Joint Oceanographic Institutions)

ACTION AND NOTA BENE ITEMS

JOIDES Executive Committee Meeting  
1-2 September 1982      Kyoto, Japan

<u>Page</u>	<u>Responsibility</u>	<u>Subject</u>
9-10	PCOM	Develop preliminary plan and budget for co-mingled funds for scientific and technical development. Present to EXCOM for review at November meeting. (Motion 222-A)
10	PCOM	Make recommendations to EXCOM leading to phase-out of existing advisory panel structure and replacement by AODP advisory structure. (Motion 222-C)
12	PCOM	Provide to EXCOM a list of areas of interest and their priority as a basis for submission and coordination of site and regional survey efforts. (Motion 223-A)
13	J. Clotworthy (JOI)	Consult with legal council for JOI, Inc. and NSF regarding ramifications of JOI-International.
13 14	EXCOM/IPOD representatives	1) Possibility of joining JOI-International. 2) Define an acceptable management diagram
13	A. Shinn (NSF)	Provide EXCOM with a letter stating that the Science Operator will be a JOIDES Institution.

DRAFT MINUTES

JOIDES Executive Committee Meeting  
1-2 September 1982      Kyoto, Japan

TABLE OF CONTENTS

<u>Page</u>	<u>Item</u>	<u>Subject</u>
4	219	PRELIMINARY BUSINESS
4	220	NATIONAL SCIENCE FOUNDATION REPORT
4	220	I. NSF Budget
5	220	II. Foreign Participation
5	221	DEEP SEA DRILLING PROJECT REPORT
8	222	PLANNING COMMITTEE REPORT
8	222	I. Funding
10	222	II. Logging Priorities
10	222	III. Global Marine Contract
11	223	MEMBER COUNTRY REPORTS
12	224	ROLE OF JOI, INC. IN AODP MANAGEMENT STRUCTURE
13	225	OCEAN/CONTINENTAL DRILLING COORDINATION
15	226	OTHER BUSINESS
15	226	I. Change of JOIDES letterhead
15	226	II. Future meetings
15	226	III. Departure of William W. Hay as President

## 219 PRELIMINARY BUSINESS

A. Berman, EXCOM Chairman, opened the meeting at 08:30. N. Nasu (Japan) welcomed members and guests.

The meeting agenda was adopted.

The Committee approved the minutes of the 21-22 May 1982 Executive Committee meeting with minor modifications.

## 220 NATIONAL SCIENCE FOUNDATION REPORT

### 1. N.S.F. Budget

A. Shinn reported for the National Science Foundation. Since the last EXCOM meeting in May, NSF has continued to seek approval for the Advanced Ocean Drilling Program from the Office of Management and Budget and the Office of Science and Technology Policy. OMB has requested that NSF prepare a series of analyses of cost comparisons between Challenger and Explorer.

The comparative costs in \$ millions are:

<u>Explorer</u>	vs.	<u>Challenger</u>	
22.6		22.5	Operating Cost
12.1		11.5	Science Budget
12.5/yr.		2.8	Capital Cost

A review of the estimated costs was begun 1 August by a panel of experts from NOAA and the Maritime Administration. Shinn noted that the cost review is the last major hurdle before possible Administration approval of the project.

As part of the review process, H. Loweth (OMB) and D. Pewitt (OSTP) visited the Explorer on 16 August to become more familiar with the physical aspects of the ship.

The U.S. Congress is proceeding with review of the 1983 NSF budget request. The budget does not contain a specific request for Explorer funds, although approximately \$9 million earmarked for Explorer is contained within the NSF budget. Shinn expects the budget will be resolved within a few weeks.

The 1983 NSF budget is adequate to continue Challenger drilling for 12 months, including logging and engineering development at the present level. No excess funds are available, however, to cover unexpected costs (e.g., loss of drill string).

## 2. Foreign Participation

France set up a working group at the Versailles Conference to respond to President Mitterand's request for science and technology planning. The U.S. member on that group is the President's science advisor. At a meeting in Paris last week, the following were designated as priority areas in science and technology: space program; scientific ocean drilling; and breeder reactor development. Thus, participation by France in AODP appears assured.

NSF will visit Canada this fall to continue discussions on the draft Memorandum of Understanding.

A visit to Australia and New Zealand is also scheduled for this fall to discuss participation in AODP.

P. Kent requested that A. Shinn comment on the \$9 million in the NSF budget allocated to scientific ocean drilling. A. Shinn presented the figures shown below:

\$24.7 m	NSF budget (not including <u>Explorer</u> )
2.3 m	<u>Explorer</u> science planning
6.0 m	<u>Explorer</u> design
<u>\$33.0 m</u>	(Original plan submitted to Congress)
\$14 m	U.S. <u>Challenger</u> program
7 m	U.S. <u>Explorer</u> program
\$14 m	U.S.
7 m	Non-U.S.
<u>\$22 m</u>	(Need approx. \$3 m to reach \$24.7 m)
6 m	<u>Explorer</u> design
<u>\$31 m</u>	(\$2 m difference between this and \$33 m represents loss of Soviet funds)

## 221 DEEP SEA DRILLING PROJECT REPORT

M. Peterson (DSDP) reported.

Leg 86. Approximately 12 holes at 6 sites were drilled on both sides of the Shatsky Rise. Relatively short HPC cores (150-175 m long) were taken and the DARPA site was drilled to basement. The Cretaceous/Tertiary boundary was cored 3 times resulting in good sections for stratigraphic studies.

Leg 87 is actually two legs, 87A and B, separated by a port call at Yokohama. Difficulty in drilling was encountered because of sand interfering with the down-hole mechanism. The HPC was utilized in 4 of 8 holes to recover cores for soft-sediment deformation studies.

Attempts were made to drill into thrust zones, and were only partially successful because of problems with the hole collapsing around the drill.

Leg 88. The leg was in progress at the time of the EXCOM meeting. The bottom-hole-assembly was lost, a new cone was set and drilling resumed. About 5 m of basement was penetrated. The latest report from Challenger indicated that about 350 m of casing was about to be set.

The DARPA experiment has met with some difficulties, including an explosion of one of the battery packs. An initial report for Leg 88 will be published and data will be released only during the initial year.

Leg 89 is currently scheduled for 7 October to 20 November 1982. This leg is expected to be technically difficult to drill considering the water depth (6075 m) at the drill site. A 23,800 ft. drill string will be used, which will be near its minimum yield strength while drilling the deepest portion of the hole. Furthermore, calm seas will be required to set the cone. New drill pipe fabricated of S135 steel will be used.

EXCOM members were concerned about the potential for loss of the drill string and the effects of such a loss on the remainder of the Challenger drilling program.

W. Nierenberg questioned the advisability of proceeding with the Leg 89 program. A. Shinn (NSF) noted that a fall-back plan is unavailable at this time. M. Peterson (DSDP) noted that drilling would be done under operational constraints which would minimize the chance of drill string loss.

A. Berman remarked that loss of the new drill string would limit the remainder of the drilling program to shallow holes.

A. Shinn asked Peterson if the same safety margin (10-20% of maximum load) calculated for the DARPA leg applies to Leg 89; Peterson replied that stresses would be higher on Leg 89.

W. Nierenberg noted that NSF does not have funds to replace a lost drill string. P. Kent inquired if the contract with Global Marine requires that Challenger be returned with pipe at completion of the program. Peterson answered affirmatively and noted that 550 pipe sections are now on board and many sites could still be drilled if a string were lost. He also noted that the pipe on board is only 1000 ft. in excess of the Global Marine contract requirements.

Leg 90. The procedure for core orientation is being improved, to assure maximum usefulness of the HPC cores of this leg.

Publications: 5 volumes of the Initial Reports will be delivered to NSF this year and 1 volume early next year. Plans are to publish 7 or 8 volumes next year.

Engineering:

The fly-in (wireline) re-entry is completed and ready for testing.

A 14-day yard period is scheduled for Challenger after Leg 88 at which time the ship will be dry-docked for extensive maintenance; 17 or 18 days will be spent in port.

DSDP Budget:

The year will end with full fuel tanks. Logging is scheduled for Leg 89 (1st leg of next year).

A slight easing of the tight budget will result from the lack of pay increases for DSDP and Global Marine personnel.

Peterson ended his presentation at this time.

Discussion:

Discussion continued on the potential consequences of drill string loss on Leg 89.

A. Shinn noted that even if 23,000 ft. of drill string were lost, about 20,000 ft. of pipe would still be available for drilling.

J. Debyser suggested that EXCOM should clearly express its concern so that the co-chief scientists and others are aware of the potential consequences of drill string loss on the remainder of the drilling project. A. Maxwell reminded the EXCOM that Leg 89 has already been carefully considered by the Planning Committee and DSDP and therefore should be allowed to proceed under DSDP operational constraints. Continued discussion resulted in the following motion introduced by J. Debyser and seconded by W. Nierenberg.

221-A The Executive Committee reaffirms the decision to continue with drilling as scheduled for Leg 89, subject to the operational constraints defined by DSDP.

Vote: 11 for; 0 against; 0 abstain.



## 222 PLANNING COMMITTEE REPORT

J. Honnorez, PCOM Chairman, reported. The last PCOM meeting in Fujinomiya, Japan, 7-9 July 1982, resulted in 17 motions. Several are of direct interest to the Executive Committee.

I. Funding of science and technology during the hiatus period, and program funding in general. Honnorez pointed out that the NSF budget provides funds for Explorer conversion, but not for adequate science and engineering technology development. The COSOD report clearly indicates the need for such development, given the increase in capabilities of Explorer over Challenger.

A. Shinn (NSF) requested that EXCOM provide him with a dollar amount required for adequate science and engineering development during the hiatus period. EXCOM discussion centered on the budget breakdown provided by Shinn and shown below:

### Challenger program 1984/85 (in \$ millions)

2.2 operations  
4.4 science  
1.0 publications  
  
2.2 JOIDES  
1.4 synthesis  
1.0 engineering  
4.6 (\$ needed here for science and engineering development)

### US Contribution:

0.2 science  
2.6 site survey  
75.0 Explorer conversion  
77.8 Shinn noted that this amount is subject to negotiation, and that it would be difficult to increase the \$4.6 million figure because of the already large (\$77.8 million) U.S. commitment.

Extensive discussion followed, including the following remarks:

- C. Helsley - the need to increase funding is a US-JOIDES problem.
- A. Berman - two options are available: a) ask Congress for additional funds, or b) stretch out Explorer conversion over a longer time period. (A. Shinn remarked that option a) is preferable.)

- H. Durbaum - seek required funds from other NSF directorates. (A. Berman noted that funds required for technological development are not available from NSF basic research funds.)
- J. Schilling - NSF budget is subject to future negotiation
- W. Nierenberg - funds budgeted for science and engineering should be protected by segregation from Explorer conversion costs.
- C. Helsley - comingled funds would be protected (A. Shinn agreed).
- P. Kent - asked if conversion cost could be increased to cover engineering development. A. Berman responded that it would be politically unwise to increase conversion budget. A. Shinn commented that \$1.0 million engineering budget could be increased, but increase would have to in part covered by foreign participation.
- J. Strong - site survey funds should be a comingled commitment during Explorer conversion for protection.
- B. Raleigh - time is not available for adequate documentation of the need for additional funds for science and technology development. EXCOM should ask NSF for funds for science planning, and NSF should immediately begin the process of budget development.

A. Berman appointed a subcommittee consisting of B. Raleigh, H. Durbaum and W. Merrell to formulate a resolution expressing the concern of EXCOM on this matter. The following motion resulted, proposed by B. Raleigh and seconded by R. Heath.

We recognize that the EXPLORER AODP has proceeded well toward the conversion of the EXPLORER as a scientific drilling ship and how the necessary scientific strategy to make optimal use of these unique capabilities must be developed. Furthermore, the scientific program funds must be identified in accordance with a sound plan including surveys, syntheses and new technological developments designed to achieve the scientific objectives of high priority as given in the COSOD report. These funds should be separately budgeted from the project, ship's conversion and operations funds to ensure that the scientific efforts remain in proper balance with the other elements of the drilling program.

The EXCOM notes that JOI has asked the U.S. Planning Committee members to prepare a budget for the FY 84-87 period for the U.S. funds for review and approval by JOI.

EXCOM directs PCOM to develop a preliminary plan and budget for co-mingled funds for scientific and technical development including site surveys over the four years beginning FY 84. We recommend that PCOM call on advice from panels and consulting experts. Both budgets and plans for U.S. and co-mingled funds should be reviewed by the PCOM as a whole and presented to EXCOM for review at the November meeting in Austin.

VOTE: 11 for; 0 against; 0 abstain.

J. Debyser asked that the Planning Committee decide on the part of embarkation (Atlantic or Pacific) of Explorer so that site survey planning can proceed in France and other IPOD member countries.

J. Honnoret responded that PCOM recognizes that 2 or 3 years advance notice are required for site surveys, and that plans for either an east or west coast start have been made (see Table 3 of 7-9 July PCOM minutes). The problem of port of embarkation lies with NSF, not with PCOM.

A. Shinn (NSF) noted that it would be possible to decide now on an Atlantic or Pacific start for ADOP. Explorer could be towed around the Horn of Africa at a cost of \$2 million. Selection of a start-up site will be explored by NSF (discussion continued later).

II. J. Honnoret requested that EXCOM provide guidance on logging priorities and on the advisory panel structure during the phase-out of the current drilling program. The following motions resulted.

222-B The Executive Committee repeats its recommendation that logging should be a normal requirement of each leg, exceptions being made for example where a leg consists of shallow holes cored by HPC.

Introduced by P. Kent, seconded by J. Debyser.

VOTE: 11 for; 0 against; 0 abstain.

222-C The Executive Committee instructs the Planning Committee to make recommendations to EXCOM leading to the phase-out of the existing advisory panel structure and its replacement by a new panel structure more appropriate for achieving the objectives of the Advanced Ocean Drilling Program.

Introduced by C. Helsley, seconded by A. Maxwell

VOTE: 11 for; 0 against; 0 abstain.

### III. Global Marine Contract

A. Shinn (NSF) asked M. Peterson (DSDP) about the status of the contract with Global Marine, in reference to the possibility of terminating drilling at the end of the fiscal

year, with a cost saving to NSF of about \$1 million. Peterson responded that the contract is for 1 year, not part of a year, and Global Marine would probably want to renegotiate costs if the contract were altered.

C. Helsley noted that \$1 million could be applied to science and engineering development but W. Merrell and M. Peterson felt that savings, if any, would likely be much less than \$1 million.

A. Maxwell suggested that it would be unwise to change the contract with Global Marine, given the uncertainty of AODP and the short time remaining before a decision would have to be made. Further discussion led to a consensus that the drilling program should remain as is.

## 223 MEMBER COUNTRY REPORTS

J. Debyser reporting for France reported at the EXCOM meeting 21-22 May 1982 in Washington, D.C. and prefers to limit such reports to once yearly. At this time he had no additional information.

H. Durbaum (FRG) also had no additional information.

P. Kent (UK) commented that although financial problems have existed in the UK over the past 2 or 3 years, use of DSDP data in UK universities is extensive resulting in strong support for science aspects of the drilling program. He also mentioned the possibility of hosting the EXCOM meeting in the UK next year either at Swindon (easy access from Heathrow airport) or in Glasgow with a field trip in the north country.

N. Nasu (Japan) reported. JAPEX (Japanese Petroleum Exploration Co.) seismic records across the Nankai Trough were published as part of IPOD data set #4, and used for Legs 87 and 88. Record shows a good example of large-scale accretion wedges. The ocean side of the plate has a graben and trough topography, whereas the Nankai Trough side is smooth. The axis of the trough may migrate through time from the landward side toward the ocean side. Drilling results from Leg 87A will reconcile the multichannel record.

The Geology Council of Japan which oversees the geological scientific community, has passed all IPOD business. On 30 July the IPOD Working Group was disbanded and the Deep Sea Research Committee was formed to review proposals. In general, the Geology Council of Japan oversees science and the Ministry of Education controls the budget.

J. Debyser informed EXCOM that the vessel Jean Charcot will circumnavigate the globe in 1984 and would be able to perform regional studies and site surveys of interest to the IPOD program. Research proposals have already been received and plans are to begin in the Pacific, then work the Indian Ocean and the Atlantic. It is therefore important to know early which ocean Explorer will drill first.

A. Shinn said that if a clear preference can be established for beginning drilling in the Pacific, then NSF can make arrangements accordingly. A. Berman suggested that PCOM should look into this.

A comment by J. Debyser that cooperation should be promoted among JOIDES partners to survey the more remote areas of the ocean resulted in much discussion. J. Honnorez noted that the antarctic would be easily covered from either the Atlantic or the Pacific. H. Durbaum said that a new German polar ship will be in the Weddel Sea during the antarctic summer of 1984/85. Germany has several vessels and it would be difficult to coordinate their activities; once the schedules are published, it is already too late. P. Kent suggested that given the large area of the Weddel Sea, PCOM should identify specific areas of interest. J. Debyser said that the requirement of geophysicists to use multiple ships for refraction work necessitates cooperation and planning. C. Helsley would like PCOM to identify areas where site surveys are needed for drilling during the next 4 or 5 years; P. Kent and M. Peterson agreed.

A. Berman instructed J. Debyser and J. Honnorez to write a directive to PCOM reflecting the views of EXCOM. The following motion resulted, amended by P. Kent.

The Executive Committee recommends that the Planning Committee provide a list of areas of interest and their priority as a basis for submission and coordination of site and regional survey efforts.

To this end, PCOM members should be invited to present annually the cruise programs of their institutions (or nation), followed where possible by a formal undertaking to carry out said survey in specific areas.

Coordination of scientific effort and equipment is desirable.

Introduced by J. Debyser, seconded by P. Kent.

VOTE: 10 for; 0 against; 1 abstain.

N. Nasu (Japan) asked if Explorer conversion is required to be performed in a US shipyard; he noted that Japan requires any item more than 25 million yen to be open to international bids. A. Shinn answered that although no such requirement exists in the US, it would be politically difficult to not use a US yard.

#### 224 ROLE OF JOI, INC. IN AODP MANAGEMENT STRUCTURE

J. Honnorez (PCOM chairman) asked the Executive Committee to consider the concern expressed by PCOM (motions 376A and 376B in draft minutes, PCOM meeting, 7-9 July 1982) of the role of JOI, Inc. in the AODP management structure (motion 4 and diagram on p. 27, EXCOM minutes, 21-22 May 1982).

EXCOM members explained that PCOM's concern that JOI may "filter" advice from the advisory panels is unwarranted, as EXCOM motion 4 (p. 28) was not approved, and "Appendix A" precludes filtering by JOI, Inc.

A. Berman proposed changes in the science advisory structure as shown in the diagrams (see next page).

N. Nasu (Japan) said that Japan prefers that the Science Operator be an academic institution; a non-academic Science Operator would cause problems for Japan's IPOD membership.

A. Shinn (NSF) informed N. Nasu that the Science Operator is controllable and that NSF can ensure that it be a JOIDES institution. A. Shinn then questioned the need for JOI if the Science Operator is an academic institution. A. Berman answered that JOI represents the entire scientific community.

J. Strong noted that AODP is similar to the present drilling program except for the ownership of the ship, and asked A. Shinn how this change would affect the present management structure.

A. Shinn replied that NSF must accept more responsibility for the ship, as now done by Global Marine. NSF would be in direct communication with various aspects of ship operation.

J. Debyser noted that both the current and proposed management structure (see diagrams) are unacceptable to France because JOI, Inc. is a purely US body; if JOI, Inc. were an international entity then it would be acceptable.

A. Shinn commented that a problem may exist, but it may be possible that non-US members may sit on the JOI, Inc. Board of Governors.

A. Maxwell noted that JOI was originally set up to avoid non-US relationships, and that such international relationships are maintained through "Memoranda of Understanding."

H. Durbaum said Germany is concerned about the fate of comingled funds; funds should be protected and used for their designated purpose.

P. Kent suggested that two types of lines or colors be used on the diagrams to distinguish between contractual (funds) control from scientific control.

A. Berman summarized the discussion and made the following assignments:

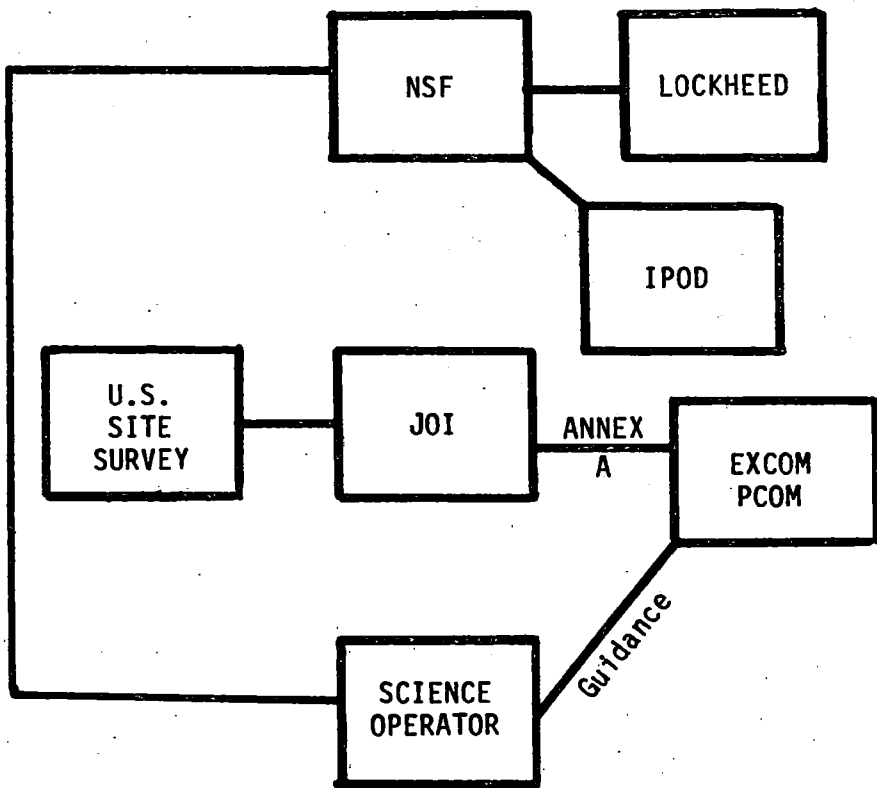
N.B. J. Clotworthy (JOI, Inc.) is to determine the legal ramifications of making JOI an international body, through discussions with legal council for JOI and for NSF.

N.B. Each non-US EXCOM member is to: 1) determine if any problems would exist in joining a JOI-International; and 2) define an acceptable management diagram. Results will be presented at the next EXCOM meeting.

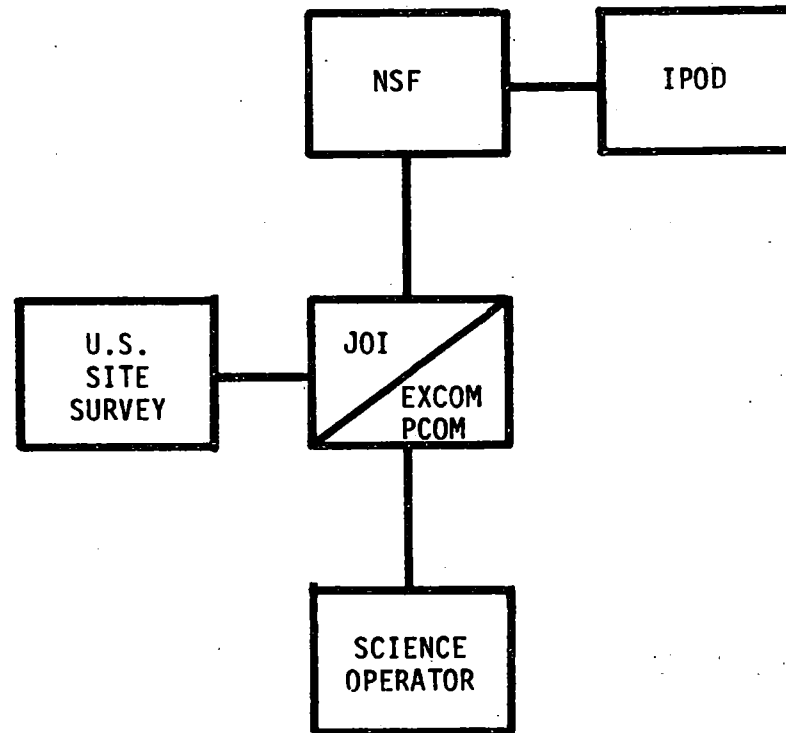
N.B. A. Berman also requested that NSF (A. Shinn) provide a letter clearly stating that the Science Operator will be a JOIDES Institution.

## 225 OCEAN/CONTINENTAL DRILLING COORDINATION

J. Honnorez expressed the concern of PCOM that many earth scientists view DSDP as a "closed" program. PCOM feels that contacts with continental geologists be expanded.



Existing management structure.



Proposed AODP management structure.

EXCOM agreed and suggested that B. Raleigh act as DSDP liaison to the Continental Drilling Committee, of which he is a member. A. Berman appointed B. Raleigh as DSDP liaison.

## 226 OTHER BUSINESS

### I. Change of JOIDES letterhead

EXCOM decided to delete the list of member institutions from future JOIDES stationery, to avoid constant reprinting due to membership changes.

### II. Future Meetings

The next Executive Committee meeting at the University of Texas at Austin, 10-11 November 1982. The JOI, Inc. annual meeting will follow on 12 Nov.

April 19-20-21 (tentative) in Washington, D.C.

Aug/Sept 1983 in the UK (exact dates to be decided later).

### III. Departure of William W. Hay as JOI President

The Executive Committee expressed their gratitude to W. Hay for his extensive and constructive participation in the Deep Sea Drilling Program.

A. Berman, Executive Committee chairman, thanked N. Nasu for hosting EXCOM, and adjourned the meeting at 11:30, 2 Sept. 1982.