

PANEL MEMBERSHIP

1. At its January meeting, PCOM agreed to defer consideration of panel membership until May pending the ESF Consortium attaining full membership and to allow the regional and thematic panels to consider an appropriate rotation scheme for their membership and to review the scientific balance of each panel.
2. It should be noted that regional and thematic panels are required to rotate off one-third of the membership each year; that current practice is that a retiring chairman should be asked to remain on the panel for a further year to provide continuity; and that recommendations for changes in non-U.S. membership are merely advisory and are dependent on the responses within the non-U.S. national agencies. It should be noted that there may be changes to ESF representation following meetings of the ESF Consortium Scientific Committee. It should be borne in mind that PCOM has also expressed the desire to involve as wide a community as possible (especially in the U.S.) and to introduce "new blood" into the panels.
3. Service panels do not have the same requirements to change membership although several have responded with proposed changes and/or additions.
4. PCOM is asked to note the following impending retirement of several panel chairmen and the vacancy in the chairmanship of CEPAC and to decide on possible replacements:
  - CEPAC vacancy (following move of D. Rea to NSF)
  - DMP M. Salisbury wishes to retire 1987
  - IHP D. Appleman wishes to retire late 1986
  - SOP J. Kennett possibly to retire in 1987
  - PPSP G. Claypool possibly to retire in late 1987 (suggests M. Ball, USGS as replacement)
5. Following the recent round of meetings, panels have submitted rotation schemes which have been attached, together with the overall membership lists. At the time of writing ARP\* had not responded and IOP does not meet until July, and their January submissions are included. Further changes may be proposed by IOP after its July meeting. PCOM should note the overlaps within the suggested rotation/replacement schemes. (\*SOP meeting at time of writing.)
6. The question of liaisons and their role in panels has been discussed at the Panel Chairmen's meeting. The PANCHM meeting wanted to retain the present policy of:
  - a) having single members of thematic panels attend regional panels as full voting members;

- b) members of regional and service panels serving as ad hoc non-voting liaisons to thematic panels as necessary;
- c) a representative from DMP attending one meeting per year of each thematic and regional panel in a non-voting liaison capacity.

It should be noted that SSP wishes to have a non-voting liaison with appropriate regional panels (at this time IOP, WPAC, CEPAC).

The PANCHM views were in response to a discussion document from the JOIDES Office which is included for information.

- 7. PCOM is asked to consider the question of inter-panel liaisons and the submissions by the various panels; to approve the membership rotation schemes; and to decide on new panel membership for 1986/87.
- 8. In addition to the membership proposals in the attached sheets, the following additions have also been proposed:

IHP - C. Broglia to attend as a permanent liaison from LDGO Wireline Services contractor.

TEDCOM - Charles Sparks, IFP, expert on riser drilling to replace Silcox of Chevron who has resigned. Further revisions are expected to be suggested by TEDCOM.

SSP - alternates to Duennebier and Langseth needed from USSAC which is considering this matter.

PCOM is asked to consider and approve the above changes.

- 9. PCOM should briefly review the "member-at-large" positions. If from a non-U.S. member nation, the "member-at-large" is chosen by PCOM although financial responsibility falls on the non-U.S. member's funding agency. For "members-at-large" outside the JOIDES community, funding responsibility falls on JOI.
- 10. At this time, with a detailed Red Sea program devised by the Red Sea Working Group, the need for the continuing existence of this Working Group should be considered, and PCOM is asked to disband the Group at this time.
- 11. PCOM should also review the PCOM liaisons to panels in the light of changing PCOM membership.

AESM  
May 1986

PANEL MEMBERSHIP, INTER-PANEL LIAISON & PANEL COVERAGE DISCUSSION PAPER

1. The two main constraints operating on panel membership are the need to achieve a broad scientific coverage and the need to keep panel numbers to a manageable size. With regard to the latter, each non-U.S. partner has the right to nominate and the balance is then achieved with U.S. nominees, principally drawn from JOI institutions. Currently, PCOM holds the view that a panel of 12 to 14 members is the maximum manageable panel size. In addition, PCOM has attempted to involve scientists from the U.S. marine geological community at large.
2. It should be noted that most inter-panel liaison members are usually full members of the panels on which they sit. This means that these liaisons usually have two or more votes in the planning process and occupy seats which could go to other members of the community. This is not always the case and some panels have regular liaisons who attend as invited guests.
3. It is suggested that all liaisons should have a primary panel of which they are full voting members and that they should attend other panels' meetings in the capacity of non-voting liaisons. The point of liaison is to improve communication rather than provide multiple opportunities for voting on planning decisions.
4. Following the La Jolla PCOM, the PCOM Chairman wrote to all panel chairmen outlining the revised procedures for the formulation of drilling plans. In his letter of 4 February 1986 Roger Larson said:

"Ideally we see this (the planning procedure) as a sequential, three-step process for each geographic area of planning as follows. First, we request the thematic panels to specify the overall thematic objectives that can best be achieved in this geographic area, placing this area in the world-wide view of their subject that lies within their panels' mandate. Second, this information is then communicated to the regional panel(s) responsible for this area, and the regional panels are asked to define a specific drilling program within the thematic constraints set down by the thematic panels. Finally, this proposed drilling program is reviewed by the thematic panels who comment on its adequacy in meeting the thematic objectives. This advice is then communicated to PCOM, which is the final arbiter of the drilling program. . . . Thematic panels should de-emphasize the review of all specific drilling proposals. . . and concentrate on long-term world-wide planning. . . . However, we hope that the regional panels' prioritization of specific proposals, and their subsequent proposed drilling programs, will serve as an initial screening process for thematic panel review."

If this procedure is followed, it seems logical that thematic panels should appoint liaisons to regional panels as appropriate. The need for inter-regional panel liaison is probably unnecessary.

In addition, the Site Survey and Downhole Measurements service panels need to have liaisons with certain thematic and regional panels.

5. The level of liaison will vary with time, dependent on the "maturity" of the planning cycle in any particular region. For instance, at the present time the regional panels may be divided into three levels of activity as follows:
  - i. Low Activity - Atlantic Regional Panel which will now be reviewing drilling results and embarking on long-range planning (other than its role in Legs 110 and 113). Probably only needs to meet once per year. No specific need for liaison with thematic panels.
  - ii. Average Activity - Indian Ocean and Southern Oceans Panels. These panels have a role in final site selection and some advance planning functions. Liaisons with thematic panels dependent on subject under review. Liaison with SSP, and possibly DMP, needed. Two and possibly three meetings per year adequate.
  - iii. High Activity - Western Pacific and Central & Eastern Pacific Panels. This stage of planning requires liaisons from each thematic panel to each regional panel. Liaison also vital between SSP and regional panels. Possible DMP liaison needed. Regional panels meeting about 3 times per year.

As the ship moves through the drilling program, the position of the regional panels in this classification will change. Thematic panels will continue to meet 2 to 3 times per annum. DMP and LITHP have established a need for a close liaison.

6. It is suggested that each thematic panel identifies a liaison to specific regional panels in categories ii. and iii. and that regional panels will normally invite thematic and Site Survey liaisons as non-voting attendees. Liaisons to category ii. regional panels will be dependent on the subject under review. It should also be noted that in the case of category iii. panels, there could be benefit in arranging meetings back-to-back with a thematic panel in order to resolve matters of difference between them. Furthermore, panel chairmen should not automatically seek liaison attendance unless it is strictly necessary and that liaison in category ii. could be achieved by telephone or electronic mail.
7. The appointment of liaisons must also take cognisance of the rotation of members on the panels to ensure a reasonable continuity over at least 12 months. Furthermore, it is suggested that no individual is liaison to more than one panel (i.e. limit of thematic panel membership plus one regional panel liaison).
8. Appointment of panelists to provide a broad disciplinary coverage is important. Traditionally, this has been achieved by balancing the disciplinary coverage from the U.S. community, having taken

into account the expertise of the non-U.S. nominees. However, there is some concern in the community at large that there is inadequate provision of geochemical expertise. Should a geochemical service panel be established?

The other concerns are the often unbalanced character of regional panels, who often call for additional petrological expertise, and the breadth of SOHP for which a division has been proposed in the Arthur/Leinen memo of December 1986 (into Ocean History & Stratigraphy and Sedimentary Processes). A suggestion has also been made recently (Scholl) to split the TECP into Tectonics and Ocean Tectonic History.

9. Summary of suggestions:

- a. Division of regional panels into activity levels to determine liaison levels.
- b. Liaisons to be non-voting attendees from thematic to regional panels.
- c. No person to serve on more than one panel with one liaison responsibility.
- d. SSP to have formal, designated liaison with appropriate regional panels.
- e. Occasional back-to-back meetings of thematic/regional panels.
- f. Physical attendance not always necessary (use phone or electronic mail).
- g. Broad scientific coverage needed.
- h. Need for geochemical service panel?
- i. Split of some thematic panels?

SHORT-TERM PLANNING

Leg 111 (co-chiefs Becker and Sakai)

1. At its January meeting, PCOM agreed that Leg 111 should be "primarily devoted to the deepening and logging of DSDP Hole 504B." However, should "substantial" progress be made in drilling ODP Hole 648B on Leg 109, PCOM would consider devoting Leg 111 to a third leg on the MAR site. PCOM also recommended that up to 5 days of Leg 111 at 504B be devoted to drilling APC/XCB holes for geochemical and palaeoenvironmental objectives.
2. LITHP recommends devoting Leg 111 to 504B regardless of the level of progress at 648B on Leg 109.
3. SOHP recommends a double APC to refusal at the site of a downwelling limb and in water no deeper than site 504B possibly near site 505. This APC site can address both palaeoenvironmental and geochemical objectives. SOHP also recommends a double APC at site 504B to a depth of 100m. These recommendations should be able to be accommodated within the 3 days allocated by PCOM.
4. LITHP has recommended a back-up program of shallow crustal holes around 504B (Mottle proposal) and testing unsupported bare rock spud-in on the nearby Galapagos spreading center.
5. PCOM agreed to a downhole measurements program as recommended by DMP which included one day for a VSP experiment. Phillips, who will run the experiment, asks for a minimum of 2 days.
6. PCOM is asked to:
  - i. Confirm deepening 504B as the prime Leg 111 objective
  - ii. Approve the SOHP recommendation
  - iii. Approve the LITHP back-up recommendation
  - iv. Confirm the DMP recommendations with one day for a VSP experiment.

Leg 112 (co-chiefs Suess and von Huene)

1. In January, PCOM asked panels for a further evaluation of this leg.
2. TECP comments are to endorse sites 3 and 6 or 7 on the southern transect and sites 14 and 17 on the Yaquina Basin transect. von Huene is to develop alternate back-up sites on Peru 3 line (most northerly transect) which were not in the original proposal.
3. CEPAC endorsed Sites 1-5, 7, and 9-13 as primary sites and sites 6, 8, and 14-17 as the secondary targets. CEPAC also endorsed the

von Huene northerly alternatives but expressed concern that transit to the latter would eat into drilling time (see CEPAC "watchdog" report).

4. SOHP recommended a series of upper slope sites in priority order (based on a proposal by Suess). These are: 3, 1, 5, 3A, 2, 2A, 4A, 4B, 10, 11, and 9. SOHP has reiterated its view that the palaeoceanographic objectives of Leg 112 are amongst its highest priority global objectives. SOHP has also recommended that von Huene consider a site seaward of the Peru Trench as a reference section for the Nazca plate.
5. SSP commented that data for the tectonic objectives arrived at the Databank late and in disarray making assessment difficult. The data package for the upper slope (palaeoenvironment) sites available before the SSP meeting was totally unsatisfactory. Data were provided to the SSP at its meeting by an OSU representative. Data are generally adequate for the tectonic objectives and for the upper slope objectives. OSU has been asked to pass the relevant upper slope data to the Databank as soon as possible.

Site 3 which is the highest priority for both sets of objectives has data adequate for both scientific perspectives. It is not on a MCS crossing and there may be some concern by the Safety Panel regarding deep penetration.

SSP approved the remaining palaeoenvironment sites but asked for a crossing SCS survey by Resolution to finalize site selection taking into account structural complexity shown in supporting data. It was noted that shallow water sites may present a technical difficulty. SSP approved the remaining tectonic site data adequacy.

6. von Huene is away until the end of July surveying the northern transect and Suess is on sabbatical in Europe. A full safety review will be needed in August, which is already very late in the planning process.
7. Clearance is being requested from the Peruvian government which is asking for 5 berths assigned to its observers. Final clearance is dependent on the final drilling plan.
8. PCOM is asked to:
  - i. Approve a final drilling plan for Leg 112 including priorities and a division of time between palaeoenvironmental and tectonic objectives to avoid potential conflict (also to delineate back-up options).
  - ii. Note the possible safety problem on prime site 3.
  - iii. Agree to a safety review in August and to changes which may be required by the Safety Panel.

Legs 113/114

1. Co-chiefs for 113 are Barker and Kennett and for 114 are Ciesielski and LaBrecque.
2. PCOM has agreed that W10 should be a contingency site for site W4; that Weddell Sea sites are of higher priority than South Atlantic Sub-Antarctic and Leg 114 should act as a back-up for the Weddell Sea if circumstances are unfavorable on Leg 113; and that a logging program should be included on Leg 113.
3. A recent proposal from Hinz et al. lists a series of 14 alternatives to sites W4 and W5. Comments from SOP and SOHP are not available at this time.
4. SOP priorities for Leg 113 are:  
W1 and W2 (Maud Rise), W4 (Caird Coast), W6-8 (South Orkneys), W5 (Weddell Sea) with W10/W11 as back-ups.

SOHP priorities for Leg 113 are:

W1 and W2, W4, W10, W7, W5, W6, W8 and then the SA sites in priority order: SA8, SA2, SA3, SA5W.

SSP comments that data are generally adequate except for sites W3 and W9 which are not adequate.

Recent SOP recommendations are not available at the time of writing.

5. For Leg 114, SSP comments that data will not be available for either SSP or PPSP assessment until early December 1986 for a cruise starting in March 1987. Without these LaBrecque site survey cruises on Polar Duke and Conrad, there is a paucity of site survey data which are not well documented.
6. PCOM is asked to:
  - i. Treat Legs 113/114 as a combined operation and recommend that all four co-chiefs are involved in the pre-cruise meetings
  - ii. Confirm the priority of Weddell Sea sites over South Atlantic Sub-Antarctic sites and decide on the priority order for sites on Leg 113
  - iii. Note the late SSP and PPSP reviews in December 1986

A.E.S.M.

May 1986



MEDIUM-TERM PLANNING (INDIAN OCEAN)

a. Introduction:

Following the January PCOM meeting, the tentative Indian Ocean schedule is as follows:

1987 May/June	SW Indian Ocean Ridge (SWIR)
Jul/Aug	Red Sea
Sept/Oct	Neogene Package
Nov/Dec	Kerguelen I
Jan/Feb	Kerguelen II including Prydz Bay
Mar/Apr	Broken Ridge/Southern 90°E ridge
May/June	Northern 90°E Ridge/Intraplate Deformation
Jul/Aug	Argo/Exmouth

At this meeting, PCOM agreed to the options of Somali Basin deep stratigraphic test, Makran; and a Neogene II package to be considered as alternatives to SWIR (should the site survey not be funded) and the Red Sea (in view of political and security problems).

PCOM also agreed to the prospect that an early exit from the Indian Ocean should be considered.

Mascarene Plateau and Otway Basin programs were not specifically eliminated at this stage but are of lower priority than the above program and alternatives.

b. Western Indian Ocean:

SWIR:

1. IOP placed SWIR as a high priority to be combined with the Mascarene basin (fossil ridge). The latter was specifically deleted from the program by PCOM (January 1986).
2. LITHP recommends an entire leg to devoted to SWIR and asked the various proponents to prepare a revised an coordinated proposal (Attachment 1).
3. TECP favoured replacing SWIR by CIR fracture zone drilling if it could not be drilled but placed a high-priority on SWIR.
4. SSP noted that site surveys are funded and data will be available in November. SSP asked specifically for 3.5 KHz data to be included.

Red Sea:

1. IOP has this as a high priority as does LITHP which has put a high priority on drilling hydrothermal systems there and considers Red Sea drilling its highest Indian Ocean priority. TECP views Red Sea as a prime site to study the nature of "transitional crust." SOHP rates Somali Basin and Neogene Package higher priority than Red Sea.

2. TECP has proposed that Makran should replace Red Sea, if the latter is untenable. SOHP favours Somali Basin and Neogene Package II as alternates. All three thematic panels recommend an early exit from the Indian Ocean if alternatives to Red Sea drilling are not viable.

3. SSP has identified gaps in site survey data. These may be filled by Darwin surveys (if clearances are forthcoming) and by attempting to access data held in Italy, France, etc. and by the Red Sea Commission.

4. EXCOM considered the political/security problems of operating in the Red Sea. No significant advice was given to PCOM other than to defer a decision for 6 months.

#### Neogene Package I:

1. IOP and SOHP rate this as a very high priority. It is clear that there is insufficient time to complete all targets in one leg. SOHP put the Oman Margin/Indus Cone transect (6 sites) as the highest priority with the Gulf of Aden site (principally for hominid evolution) as the next highest priority. The two hominid sites (Gulf of Aden and East African coast) may not be drilled on this leg and would fall into Neogene II.

2. SSP noted that all necessary data will be obtained for the high priority transect using Conrad, Darwin, M. Dufresne, and Sonne during 1986 and January/February 1987. SSP will review this data a.s.a.p. after it is obtained.

#### Neogene Package II:

1. PCOM suggested a possible Neogene Package II as an alternative to the Red Sea leg.

2. A proposal from Prell for Neogene carbonate sites (Attachment 2) has been received which amounts to 11 days drilling. It is assumed that this leg would also include Mascarene Plateau sites and the hominid sites from Neogene Package I.

3. IOP has not commented on the Prell proposal (next meeting July 86), but did include Mascarene Plateau on its recommended list of targets. SOHP ranks Neogene Package II below the Somali Basin deep hole proposal, but above 90°E ridge drilling.

4. SSP was unable to comment on the Prell proposal which was not available. Site survey for the Mascarene Plateau sites will be obtained from Darwin in March 1987.

#### Somali Basin Deep Stratigraphic Test:

1. PCOM agreed in January to include Somali Basin DST as a possible alternative to Red Sea or SWIR drilling.

2. SOHP ranks Somali Basin DST as its highest priority in the Indian Ocean after the Kerguelen/Antarctic transect. The proposed site (DST-1) requires a total penetration of 2.6 kms in a water depth of 4300 m. The alternative hole is DSDP-241 which would require an approx. 3.5 kms penetration and 2 legs of drilling.

The JOI Performance Evaluation Committee has recommended a deep test hole early in the program and the Science Operator is also keen to attempt a deep hole at this stage.

3. SSP recommends crossing MCS lines as essential for DST-1, which would then tie in with existing MCS data in the area to give a regional perspective, together with good velocity information and geotechnical data for re-entry. The only prospect for obtaining this data appears to be from M. Dufresne and discussions are underway between the JOIDES Office and R. Schlich. DSDP-241 is an existing MCS cross-lines.

Makran:

1. PCOM agreed in January to include Makran as a possible alternative for Red Sea drilling.

2. TECP has rated Makran as the alternative to Red Sea drilling. IOP did not include Makran in its list of proposed legs (December 1986). A summary of the Makran drilling is given in Attachment 3.

3. SSP noted that there is existing MCS data for near shore sites and that Darwin will complete a site survey cruise in November 1986. Processed MCS data would be available post-drilling but SCS will be available prior to drilling. This is adequate as only relatively shallow penetration is proposed.

Western Indian Ocean summary:

PCOM is asked to:

- i. confirm SWIR as a full leg at the start of the Indian Ocean campaign.
- ii. decide whether to include the Red Sea drilling in the schedule
- iii. decide, if the Red Sea drilling is deleted or this decision is deferred, which alternative (Somali Basin DST; Neogene Package II; Makran) is to be included in the schedule.
- iv. confirm Neogene I as outlined.

PCOM is also asked to note that thematic panels recommend that if the Red Sea is deleted and none of the alternatives are included, then Resolution should exit the Indian Ocean earlier than originally planned.

c. Kerguelen I and II:

1. PCOM has agreed to include two Kerguelen legs in the schedule with re-supply at La Reunion. In January, PCOM agreed that the Prydz Bay objectives and the tectonic basement objectives are the highest priorities for these two legs.

2. For Kerguelen-I, IOP has suggested three sites in the northern sector (KHP 1, 3, with 4 as the alternate site, and 5). This would allow for penetration to basement, which is strongly endorsed by TECP. SOHP puts KHP 1 and 3 as high priority sites and has proposed an additional deep water site S8B to the NNE of Kerguelen (on the flanks of SEIR) to complete its latitudinal and depth transects. It should be noted that SOHP views Kerguelen and Prydz Bay as forming a single latitudinal and depth transect. Drilling of the three KHP sites amounts to some 35 days which with S8B and transit would fully occupy one leg.

3. Kerguelen-II has as its highest SOHP and SOP priorities a transect across the Antarctic margin at Prydz Bay formed by sites K1-4. The latitudinal transect would be completed by sites KP12A (K5), KP6, and 10 (K12 and K7), and KP11 (K11). IOP recommends sites KP2 in the central part of the plateau with sites KP10, KP12, KP5, KP6, and KP11. There seems sufficient overlap of panel priorities to produce a leg consisting of Prydz Bay plus the central and southern sites. A watchdog summary of the Prydz Bay objectives (prepared by SOP) forms Attachment 4.

4. It should be noted that exact site locations may change as a result of SOP and IOP reviews of reprocessed Australian data and a recent French site survey.

5. SSP considers data to be generally adequate but these data should be deposited in the Databank.

6. PCOM is asked to:

i. confirm two Kerguelen legs with tectonic and paleoenvironmental objectives.

ii. consider linking the co-chiefs in a similar way to Legs 106/109 and that proposed for Legs 113/114 as weather conditions may result in adjustments to the drilling plan.

iii. note that sites may be revised for the southern sector of the plateau following review of site survey data.

d. Eastern Indian Ocean:

Broken Ridge/Southern 90°E Ridge:

1. TECP ranked drilling on both of these ridges behind the Makran; intraplate deformation; SWIR and the Bengal/Indus fans proposals but ahead of other proposals in the Indian Ocean. LITHP has a high priority for hot spot trace drilling on 90°E Ridge which is placed second only to Red Sea in LITHP priorities. SOHP places 90°E Ridge below Prydz Bay-S. Kerguelen transect; Neogene I; Somali Basin DST; N. Kerguelen-SEIR and Argo/Exmouth in priority although it provides a useful latitudinal transect. IOP ranks both areas of sufficient priority to include in the proposed drilling schedule.

2. SSP notes that site surveys are in hand for Broken Ridge. Proposals to survey southern 90°E are being discussed between Weissel, Sclater and NSF. IF positive, then site surveys will be obtained.

Northern 90°E Ridge/Intraplate Deformation:

1. See above for comments on 90°E Ridge.
2. TECP rates intraplate deformation studies of high priority and this proposal is supported by IOP.
3. SSP comments that site surveys are funded for both northern 90°E Ridge and intraplate deformation. SSP has advised bottom-navigated heat flow as a desirable part of the site survey.

Argo/Exmouth:

1. This proposal ranks highly for both TECP and SOHP and is strongly supported by IOP. IOP proposed four high priority sites (one in the Argo Abyssal Plain; one in each of the northern, central and western parts of the Exmouth Plateau). These high priority sites would take an estimated 50 days drilling time. Low priority sites amount to an estimated further leg's drilling.
2. SOHP supports Argo/Exmouth as part of its worldwide proposal for deep reference sites. Argo/Exmouth is ranked above Neogene-II and 90°E Ridge in order to obtain a complete stratigraphic section of the Indian Ocean basin should the Somali Basin proposal not be accepted.
3. SSP notes that there is more than adequate site survey data to meet the scientific objectives. However, it is also noted that the pre-review assessment by PPSP indicates that the proposed Exmouth Plateau sites are unlikely to receive safety clearance. The proponents are currently investigating possible alternative sites.

Eastern Indian Ocean summary -

PCOM is asked to:

- i. note the recommendations of the panels with respect to the proposed drilling legs.
- ii. confirm (or otherwise) their inclusion in the schedule, pending site surveys being successfully completed.
- iii. note the potentially very difficult safety problem with Argo/Exmouth drilling and to decide whether to include an alternative or to recommend an early exit of the Indian Ocean should this leg prove impossible to carry out.

A.E.S.M.  
May 1986

JOIDES PLANNING COMMITTEE

LONG-TERM PLANNING (PACIFIC OCEAN 1988-91)

a. West Pacific:

1. Following the PCOM instruction the WPAC has reviewed proposals and has outlined 6, 9, and 12 leg options for a West Pacific campaign, taking into account thematic panel priorities. This outline program with options forms Attachment 1. WPAC has also produced, from its perspective, watchdog reports to cover these legs and this is also given as Attachment 1.

2. TECP has listed its principal thematic objectives in the W. Pacific, together with suggestions as to appropriate drilling targets, and estimates of required legs in an optimum drilling program as follows:

Arcs & Forearcs

- |                      |        |
|----------------------|--------|
| 1. Izu-Bonin-Mariana | 2 legs |
| 2. Tonga             | 1      |

Collision & Accretion

- |                                      |         |
|--------------------------------------|---------|
| 1. Ontong-Java (large plateau)       | 1-1/2   |
| 2. D'Entrecasteaux (aseismic ridge)  | 1 to 2  |
| 3. Louisville Ridge (seamount chain) | <1 to 1 |
| 4. Japan Sea (obduction)             | <1 to 1 |

Marginal Basins

- |                    |                     |
|--------------------|---------------------|
| 1. Bonin           | (included in above) |
| 2. Mariana         | (included in above) |
| 3. Lau Basin       | 1                   |
| 4. Coriolis Trough | (included in above) |

TOTAL LEGS REQUIRED 7 to 9-1/2

3. The major thematic problems LITHP would like to see addressed in the W. Pacific are:

1. Geochemical evolution of back-arc basin crust.
2. History of arc magmatism.
3. Forearc basement composition and vertical tectonics.
4. Geochemical mass balances at convergent margins.
5. Ophiolite comparison.

\*These problems must be addressed at more than one arc-trench system.

A minimum of five legs are required to meet lithospheric objectives in the W. Pacific:

- |  |        |
|--|--------|
| -Mariana/Bonins (forearc)  | 2 legs |
| -Lau Basin (back-arc basins )  | 1      |
| -Japan Sea (marginal seas )  | 1      |
| -Seaward of Mariana & Izu-Bonin<br>trenches (geochemical mass balance) | 1      |

4. SOHP identified the following global themes as priority in the W. Pacific area:

- a. Neogene-Quaternary high resolution stratigraphy and palaeoclimatology
- b. Cretaceous-Neogene high latitude palaeoceanography
- c. Mesozoic-Cenozoic deep stratigraphic tests ranked as a major SOHP theme for the entire Program.

SOHP has ranked the WPAC packages in the following priority order:

- a. Great Barrier Reef
- b. Japan Sea
- c. South China Sea
- d. Bonin Plateau
- e. Sulu-Banda Sea

It endorses the WPAC 9-leg proposal which acceptably addresses the major SOHP themes.

5. SSP has commenced its preliminary review of site survey data availability and needs in the WPAC area. In this area there are likely to be reasonable amounts of existing data, but surveys may well be needed to complete the new data requirements of the Program.

6. PCOM is asked to:

- i. Note the panels' recommendations.
- ii. Decide on the extent to which thematic objectives are met.
- iii. Decide on a time within the WPAC proposal allocation for WPAC drilling to meet these objectives.
- iv. Agree on an outline program for WPAC drilling which can then be referred to the panels for detailed planning.

b. Rest of the Pacific:

1. Proposals for drilling in this vast geographic area are now received by the JOIDES Office with increasing frequency, especially as a result of workshops. A large number of proposals have been received following the NORPAC workshop although INPAC has only generated one proposal. The workshop on carbonate banks, atolls, and guyots has generated a number of Pacific proposals. Recent and future workshops which are likely to generate proposals cover the South Pacific, Seamounts, and the Gulf of California.

2. CEPAC (in February 1986) has had a preliminary review of proposals and has produced the following ranking:

- EPR 13°N zero-age crust
- Bering Sea palaeoenvironment
- Atolls and guyots
- Old Pacific - Jurassic and volcanism
- North Pacific palaeoenvironments

Hawaiian moats and flexures  
Chile triple junction and palaeoceanography  
Ontong - Java carbonates  
Gulf of California  
Bering Sea tectonic evolution  
Aleutian convergence  
Costa Rica convergence  
California margin  
Gulf of Alaska

2. An outline of tentative 6, 9, and 12 leg programs forms Attachment

3. SOHP sees the following themes as major problems to be addressed in the CEPAC area:

- a. high latitude or low latitude comparison (Jurassic to Neogene); e.g. Bering Sea and Ontong-Java Plateau and Bonin Plateau
- b. sea level influence on sedimentation processes; e.g. guyots and atolls

SOHP ranked packages (in order of priority) as follows:

- a. Bering Sea (high latitude section and deep hole)
- b. Ontong-Java/Bonin (low latitude section)
- c. Old Pacific
- d. Guyots and atolls

SOHP has (at its Jan 86 meeting) also identified the California Margin; Shatsky Rise/Mid-Pacific margins (black shale palaeoenvironments); Juan de Fuca ridge (hydrothermal alteration of sediments); Oregon margin (Cenozoic upwelling); and NORPAC palaeoenvironments as having a SOHP interest. SOHP will hold a joint meeting with CEPAC in October to discuss mutual interests.

4. LITHP has had a brief preliminary discussion of CEPAC objectives and has identified the following problems (not in priority order):

1. Magmatic processes and their temporal and spatial variation at mid-ocean ridges
2. Hydrothermal processes at both sedimented and sediment-free mid-ocean ridges
3. Deeper structure of the oceanic crust including the pillow lava-dike and layer 2/3 boundary
4. Mid-plate volcanism, seamount formation, plate flexure
5. Origin of oceanic plateaus
6. Origin of Jurassic-Quite Zone and vertical distribution of magnetism in ocean crust
7. Mantle heterogeneity

LITHP has proposed that a joint group of LITHP and CEPAC be established to consider drilling strategies for spreading centers in the eastern Pacific.



5. TECP will be considering firm, prioritised thematic guidelines for the CEPAC area at its forthcoming June meeting which will precede the CEPAC meeting by a few days. Strong liaison between these panels will be needed at this time.

6. PCOM is asked to:

- i. note the views of CEPAC and the thematic panels and the requirements for drilling in order to meet their objectives.
- ii. note the proposed overlapping meetings and working groups between CEPAC and thematic panels.
- iii. provide further guidance to the panels.

A.E.S.M.  
May 1986