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MEMORANDUM

TO: Roger Larson, Chairman, Planning Committee

FROM: James A. Austin, Jr., UTIG Representative to the Atlantic Regional Panel, Ocean Drilling Program

SUBJECT: Meeting of the ARP, Villefranche, France, September 18-20, 1985

Members Present: L. Montadert, chairman (France-I.F.P.)  
B. Speed (U.S.A.-Northwestern University)  
J. Thiede (W. Germany-Kiel University)  
J. Mutter (U.S.A.-Lamont)  
J. Mascle (France-Laboratoire de Geologie Dynamique Sous-Marine, Villefranche)  
J. Woodside (Canada-Bedford Institute of Oceanography, substituting for L. Jansa)  
J. Austin

Liaison to PCOM: R. Larson (U.S.A.-University of Rhode Island, Chairman)

Liaison to ODP: R. Kidd (TAMU)

Liaison to SOHP: P. Meyers (U.S.A.-University of Michigan)

Other Guests: G. Boillot (France-Laboratoire de Geologie Dynamique Sous-Marine), co-chief, Leg 103 (Galicia Bank)  
A. Mascle (France-I.F.P.), proposed co-chief, Leg 110 (Barbados)  
J.-P. Rehault (France-Laboratoire de Geologie Dynamique Sous-Marine), chief scientist, Tyrrhenian Sea (Leg 107) site surveys

Day 1: September 18, 1985

ODP Report: R. Kidd updated the ARP on Leg 105 (Labrador Sea) drilling. The ship had succeeded in setting a re-entry cone at site BB-3

in Baffin Bay, and was now drilling the upper kilometer of section despite the presence of icebergs. The major problem is that the section is completely barren of microfossils thus far, making dating difficult if not impossible. Operations at that site will continue until at least 28 September, when the ship is scheduled to move to site LA-5, in the mouth of the Labrador Sea.

PCOM Report: R. Larson updated the group on ODP membership. Australia will not be a joint member with the ESF, at least this year. However, ESF may come in on their own. Great Britain is not yet in, either, but efforts to make them a full member by 1 October are continuing. The White House has also given NSF permission to negotiate with the Russians about possible participation in the program, and the JOIDES Executive Committee will consider this at their meeting in West Germany next week. The People's Republic of China is also talking about joining the program, so there is a lot of hope for increased participation in the coming year. Unfortunately, the present level of participation is hurting ODP in two areas: geophysical site surveys and post-cruise publications. Larson's conclusion is that two additional members are required for long-term fiscal stability.

Leg 103 Summary: G. Boillot reported on the results of the Galicia margin drilling.

Tyrrhenian Sea (Leg 107): The remainder of the first day was dedicated to examining MCS site survey data from the Tyrrhenian Sea, a young back-arc basin south of France and west of Italy in the Mediterranean. J. Mascle (designated co-chief) and J.-P. Rehault presented the data. The following is a summary of the results of our discussions:

<u>Drilling Site</u>	<u>Estimated Drilling Time (inc. logging)</u>
2 (Plio-Pleis. stratigraphy)	4.0 (no logging)
1b (syn/post-rift sed's., Sardinian margin)	7.5
3a ( " , Vavilov Basin)	11.5
5b (oceanic crust, Vavilov Basin)	9.0
7a (oceanic crust, Marsili Basin)	<u>9.0</u>
	41.0

K. Kastens of Lamont will be the other co-chief of Leg 107.

Day 2: September 19, 1985

Norwegian Sea (Leg 104): After some final discussion of Tyrrhenian Sea objectives, the ARP heard a summary from J. Thiede, co-chief of Leg 104. Everyone considered the leg a great success, both from technical and geological standpoints.

Equatorial Atlantic (Leg 108): Discussion then turned to drilling priorities for Leg 108, a study of abyssal plain sedimentation patterns in the eastern equatorial Atlantic. B. Ruddiman (Lamont) and M. Sarnthein (Kiel) are the designated co-chiefs. After consideration of the co-chiefs' preferred sites and drilling time estimates, it was felt that a re-examination of both was necessary. The ARP made the following recommendations (see official recommendations, appended):

1. Better estimates of drilling times ought to be provided to the co-chiefs by ODP.
2. Logging should not be done at any sites as a means of saving time. (All eleven sites are targeted to depths of 400m or less).
3. All sites must be double-HPC'ed to maximize both resolution and recovery even if fewer sites are occupied as a result.

4. Sites should be occupied in order of scientific priority, rather than in order of geographic proximity, as the co-chiefs had suggested.
5. Finally, after receiving accurate drilling estimates from TAMU, the co-chiefs should supply ARP and SOHP with a new list of site priorities as soon as possible.

Day 3: September 20, 1985

Barbados (Leg 110): The final day of the meeting was devoted first to a discussion of Leg 110, the proposed transect of the Barbados accretionary wedge. The reason for the discussion was a concern that TAMU engineers might not have a wireline packer (for repetitive pore-water sampling) and drill-in casing (necessary for safe penetration of the decollement not sampled during DSDP Leg 78A) ready in time for Leg 110. A. Mascle, one of the designated co-chiefs, presented alternate sites to ARP. The sites are LAF (Lesser Antilles Forearc)-1, 2, and 3 on the lower part of the forearc in the vicinity of Leg 78A drilling, LAF-4 and 5 on the upper part of the forearc farther south, and LAF-12a on the westward side of the accretionary pile. All members of the ARP felt that this transect of approved sites was completely acceptable as a back-up plan for Leg 110.

JOIDES South Atlantic Workshop: Finally, the ARP discussed a plan to convene a workshop on the South Atlantic (defined generally as the geographic area between the equatorial Atlantic fracture zones and corresponding transform margins to the Bouvet triple junction). I will be a co-convenor, along with Jean-Claude Sibuet (IFREMER-France). I plan to submit the proposal to USSAC in early 1986 for a targeted workshop date of June, 1986 (perhaps immediately following the Spring AGU Meeting in Baltimore).

Last but not least, L. Montadert has decided to step down as chairman of the ARP, although he will remain on the committee. The next chairman will be either B. Tucholke (WHOI) or myself.

Next Meeting: Barbados, April 1986.

### **RECOMMENDATION 1**

The ARP, after reviewing the subantarctic drilling plan submitted by SOHP to JOIDES, and while acknowledging its importance in providing potentially necessary "extra" time for Weddell Sea drilling, recommends that this drilling be considered within the broader perspective of South Atlantic drilling targets.

Unanimous.

### **RECOMMENDATION 2**

ARP has examined again the Leg 108 proposed sites and their recently revised drilling estimates. Estimated times seem unrealistically short, and all eleven sites may not be achieved. Better times are needed in order to allow the sites to be prioritized in an order which will satisfy as many scientific objectives as possible. ARP recommends:

1. All sites be double-cored to maximize resolution and recovery, even if fewer sites can be occupied.
2. Logging not be done at any sites.
3. Better estimates of drilling times be provided by ODP.
4. Sites be occupied in order of priority, rather than in order of geographic proximity, as much as feasible.
5. Co-chiefs should provide a prioritized ranking of all eleven sites to ARP and SOHP.

### **RECOMMENDATION 3**

The ARP recommends the following order of priorities for Leg 107 in the Tyrrhenian Sea:

	<u>Estimated Drilling Time</u>	<u>Logging</u>
Site 2	4.0 d	-0-
Site 1b (alt. 1a)	6.0 d	1.5 d
Site 3a (alt. 3a', then 4)	10.0 d	1.5 d
Site 5b	7.5 d	1.5 d
Site 7a	7.5 d	1.5 d
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	35.0 d	6.0 d

Designated backups are sites 5a, 6 and 8, in that order.

At both sites 5b and 7a, ARP supports a scientific rationale calling for penetration of both the oldest observable sedimentary sequences and basement in order to estimate minimum oceanic (?) basement ages in both the Vavilov and Marsili basins.

At sites 1b (1a) and 3a (3a'/4), ARP recommends penetration to the base of the postulated synrift sequences discerned on both regional and site-specific MCS profiles.