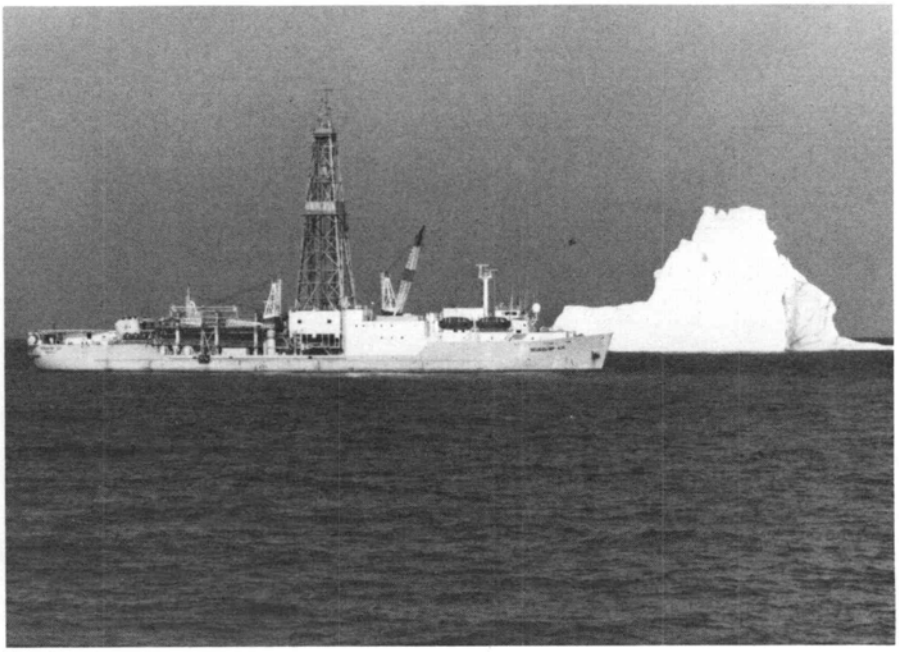
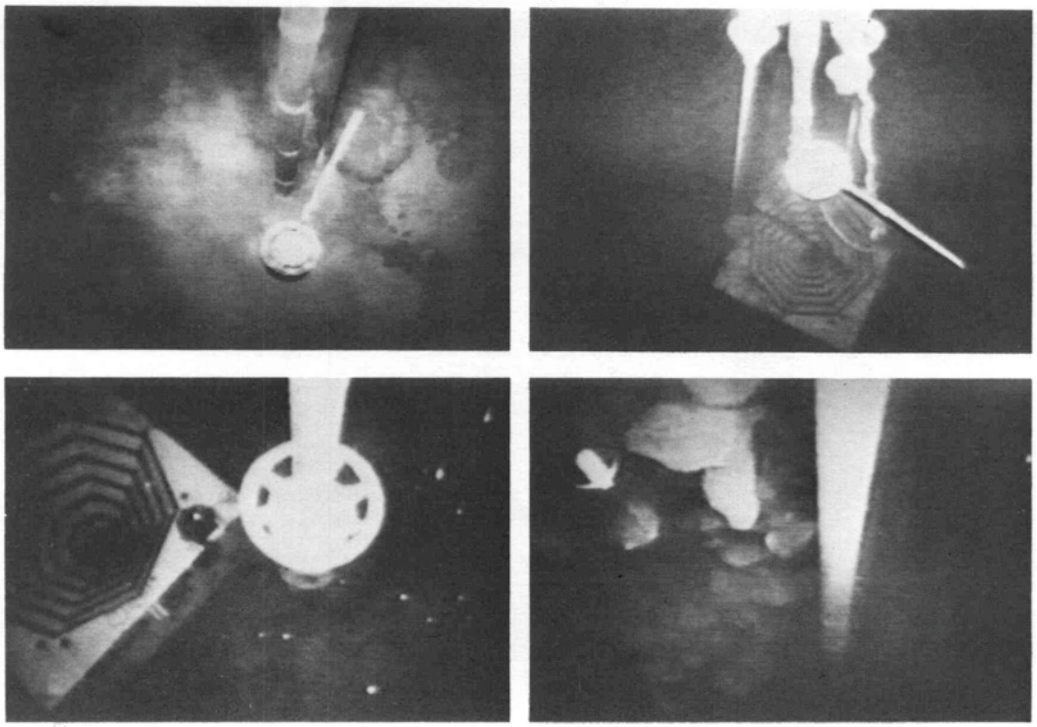
JOIDES Journal

VOL.XII,No.1 FEBRUARY 1986



LEG 105 - JOIDES RESOLUTION



Leg 106 of the Ocean Drilling Program drilled the first "zero-age" crustal holes in the median valley of the Mid-Atlantic Ridge, south of the Kane Fracture Zone. Also this cruise achieved the first drilling operations in an active, submarine hydrothermal field. The cover shows four scenes of the drilling operations taken with a high resolution, low light video camera system. Upper left: the drillstring during a test spud-in on lightly sedimented pillow lavas on a small axial volcano in the rift valley (the circular object with the vane is a compass). Upper right: deployment of a guidebase designed to provide lateral support for the drillstring during initial spud-in. The guidebase is approximately 5.2 m square, 3.3 m high and weighs approximately 15,800 kg. Lower left: the guidebase and drillstring during a typical re-entry operation at a depth of 3340 m. Lower right: drilling at the foot of an 11 m high, active "black smoker" chimney discovered in the rift valley 25 km south of the Kane Fracture Zone. Thick (greater than 13 m) deposits of Cu, Zn and Fe sulfides were recovered. Note shrimp-like organism common in the vent area. (Photographs and interpretation are courtesy of the Leg 106 Scientific Party.

FRONT COVER

JOIDES RESOLUTION as viewed relative to an iceberg, weighing approximately 4 million tons, during operations in Baffin Bay on Leg 105. This photograph was taken from the ice picket boat CHESTER and is courtesy of K. Lighty, ODP, Texas A&M University.

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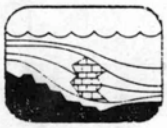

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FOCUS

A professional gambler probably would not have bet on the successes just accomplished on the Mid-Atlantic Ridge by the Leg 106 engineers and scientists. The odds were far longer here with nine new untested systems to deploy, and the stakes far higher with a half million dollars of hardware on the line than at any other time in the Ocean Drilling Program. Nevertheless, the risks paid off, as we now have initiated a hole that will eventually house the first sea floor laboratory emplaced directly within the zero-aged crust of the Mid-Atlantic Ridge spreading center. The guidebase deployment worked flawlessly despite some of the worst weather that veteran workers in that area had ever seen. Drilling proceeded slowly, painstakingly so at times, but the resulting 33 m hole is partially cased, fully cemented and free of lost drilling hardware. The engineers are confident of significantly increased penetration rates as the hole telescopes down in size, and volcanic rubble hopefully will become less of a problem. The Planning Committee has dedicated all of the subsequent Leg 109 to deepening and logging this hole, as long as the rate of penetration remains adequate.

In addition to this main objective of Leg 106, two "side bets" also paid off well, one being a scientific return and the other being technical. The scientific return was the discovery, survey, and sampling of the "Snake Pit" hydrothermal field, just north of the prime bare rock re-entry site within the neovolcanic zone. Black smokers and inactive chimneys were observed here, and the hydrothermal deposits were sampled using an unsupported bare rock spud-in technique and a downhole coring motor. These hydrothermal deposits were found to be considerably thicker than expected, up to 13 m in one hole. This exercise and the bare rock guidebase deployment were observed with our technological payoff, a very low light level TV system mounted looking downwards near the bottom of the drillpipe. This system, similar to that used in the TITANIC discovery provides beautiful, real time pictures that allowed precise pre-surveying of the drillsite, precise emplacement of the bare rock guidebase, and a subsequent survey of its attitude and response to re-entry procedures. It also allowed a series of unsupported holes to be positioned relative to black smokers in the hydrothermal areas with an accuracy of one meter or less. If you still have friends asking if or how ODP is any more advanced than DSDP, show them a 25-minute TV tape that has been assembled by the Leg 106 participants featuring highlights of these operations. I have yet to find a "doubting Thomas" in the room after viewing that TV sequence.

The lesson to be learned from Leg 106 is that we have the potential capability to accomplish new and extraordinary feats, if we as planners can give the Science Operator and the funding agencies a well-defined program with a sufficient amount of lead time to provide the necessary funds and engineering. In the case of bare rock drilling, the problem was sufficiently well defined early in the Program. This allowed Arch McLerran, long-time DSDP/ODP engineer, to come to the Planning Committee meeting held in Paris in May 1984 and to predict that in 16 months we could expect to successfully spud a bare rock drill site on the Mid-Atlantic Ridge. We didn't give them much extra running room, because Leg 106 sailed 17 1/2 months from the time of that commitment, but the results are now obvious to everyone.

Roger L. Larson
Planning Committee Chairman

OPERATIONS SCHEDULE

JOIDES RESOLUTION

LEG	DEPARTS LOCATION	DATE	ARRIVES AT DESTINATION	DATE	IN PORT
107	Malaga, Spain	1 Jan 1986	Marseilles, France	18 Feb	Feb 18-22
108	Marseilles, France	23 Feb	Dakar, Senegal	21 April	April 21-25
109	Dakar, Senegal	26 April	Barbados, West Indies	22 June	June 22-26
110	Barbados, West Indies	27 June	Barbados, West Indies	17 Aug	Aug 17-18
111T	Barbados, West Indies	19 Aug	Panama, Panama	26 Aug	Aug 26-30
111	Panama, Panama	31 Aug	Callao, Peru	24 Oct	Oct 24-28
112	Callao, Peru	29 Oct	Callao, Peru	17 Dec	Dec 17-19
112T	Callao, Peru	20 Dec	Punta Arenas, Chile	30 Dec	Dec 30-31

Revised 1/17/86

SCIENTIFIC OBJECTIVES FOR LEG 107

The following paragraphs are excerpted from the Scientific Prospectus for Leg 107 as prepared by the Ocean Drilling Program. Additional information may be obtained from Christian Auroux, Staff Science Representative for Leg 107 or Robert Kidd, Manager of Science Operations. Both are located at Texas A&M University, College Station, Texas 77843-3469.

JOIDES RESOLUTION is scheduled to depart Malaga, Spain on 1 January 1986 with a return to Marseilles, France on 18 February 1986. A total of 48 days is planned for the leg which includes 6 transit days and 42 operations days.

The scientific objectives of Leg 107 divide the Tyrrhenian Sea (Fig. 1) into a number of type localities in order to address stratigraphic and chronologic questions as well as those concerning passive margin evolution and back-arc basin development. The drilling program (Table 1; Fig. 2) will begin along the upper Sardinian margin and will include the Vavilov and Marsili basins, the two deep oceanic basins along the southeastern edge of the Tyrrhenian Sea.

The first goal of Leg 107 is to obtain as complete as possible a near continous pelagic Plio-Pleistocene sequence. This sequence will serve as a deep sea "type" section in which various chronologies (e.g. biostratigraphic, magnetostratigraphic, tephrachronologic and stable isotopic) can be correlated. Secondly, Leg 107 plans to address the timing of extension and subsidence on the western Tyrrhenian passive margin by drilling several syn-rift sequences. Under this plan the hypothesis, proposed by Watts and Ryan (1976) and Steckler and Watts (1982), that crustal extension does not occur uniformly in space and time during the stretching phase of rifting and during the earliest stages of oceanic crust formation will be tested. A secondary passive margin objective will be to determine if there is a brief interval, during the transition from stretching continental crust to the injection of oceanic material, during which mantle material rises close to the seafloor (Boillot et al., 1980).

Previous investigations (Ryan, Hsu et al., 1973; Hsu, Montadert et al, 1978) have also suggested that the Tyrrhenian Sea is an example of the class of small basins, floored with oceanic crust, that have opened behind an overriding edge of a subduction plate boundary. Investigations (Gasparini et al., 1982; Barberi et al., 1974; Selli et al., 1977; Panza et al., 1980; Recq et al., 1984; Morelli, 1970; Barberi et al., 1978; Dietrich et al., 1978; Bolis et al., 1981) also indicate that some areas of the Tyrrhenian Sea exhibit a number of characteristics which are common to back-arc basin environments. Further, several investigators (Moussat, 1983; Hutchinson et al., 1985; Maliverno and Ryan, in press) have suggested that the center of the Marsili basin (Fig. 1) is older than the center of the Vavilov basin (Fig. 1) and that the site of ocean crust formation has moved over time in a southeastwardly direction towards a subduction zone located in front of the Calabrian Arc. Thus, drilling in the Tyrrhenian will provide an opportunity to further explore additional affinities that this area may have with other back-arc areas and will provide a test for the hypothesis that back-arc basins expand through seaward migration of the volcanic arc and subduction zone (Boccaletti et al., 1976; Ritsema, 1979). In addition, the age and geochemistry of Vavilov basin basalts will be

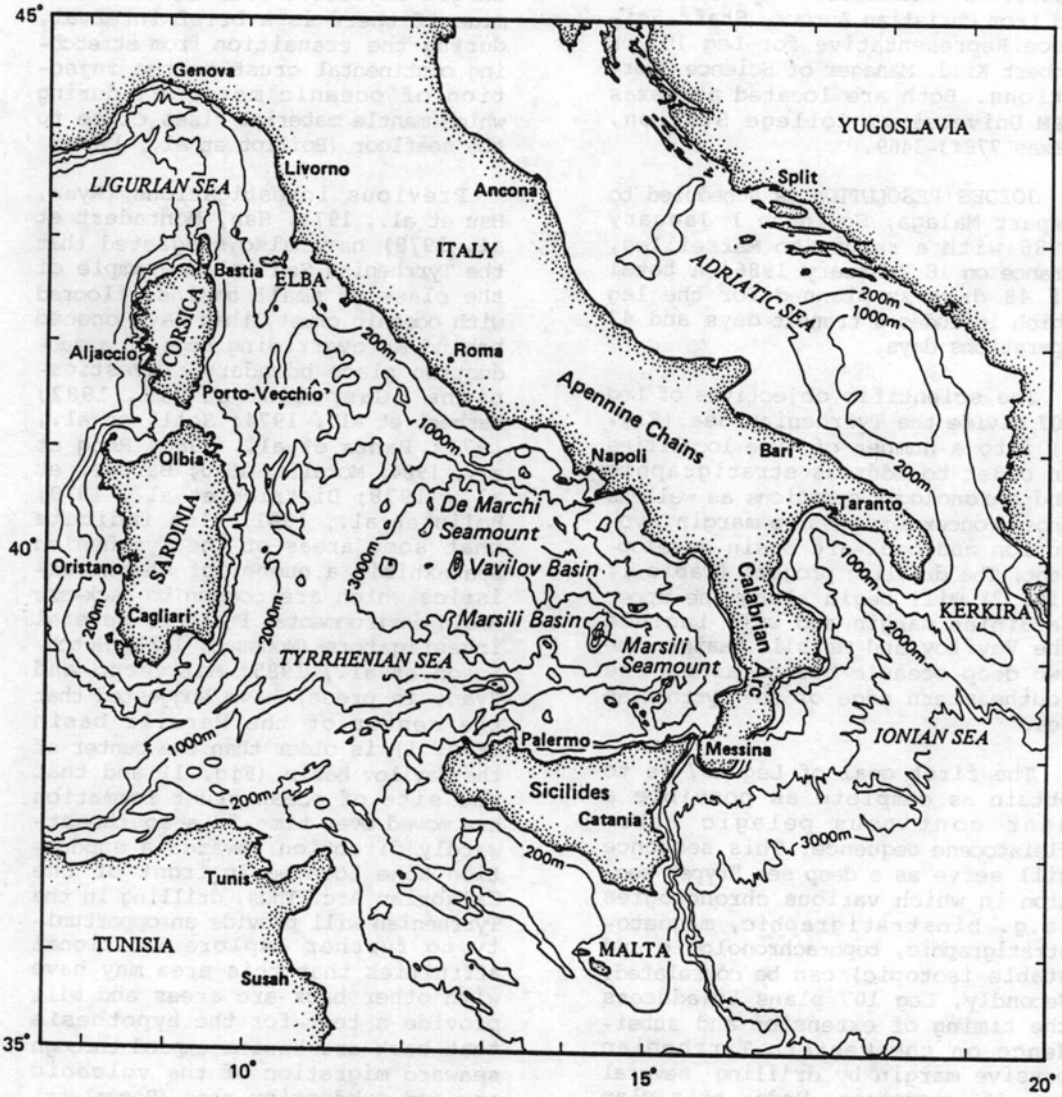


Figure 1: Bathymetric Map of the Tyrrhenian Sea. Depth is in meters.

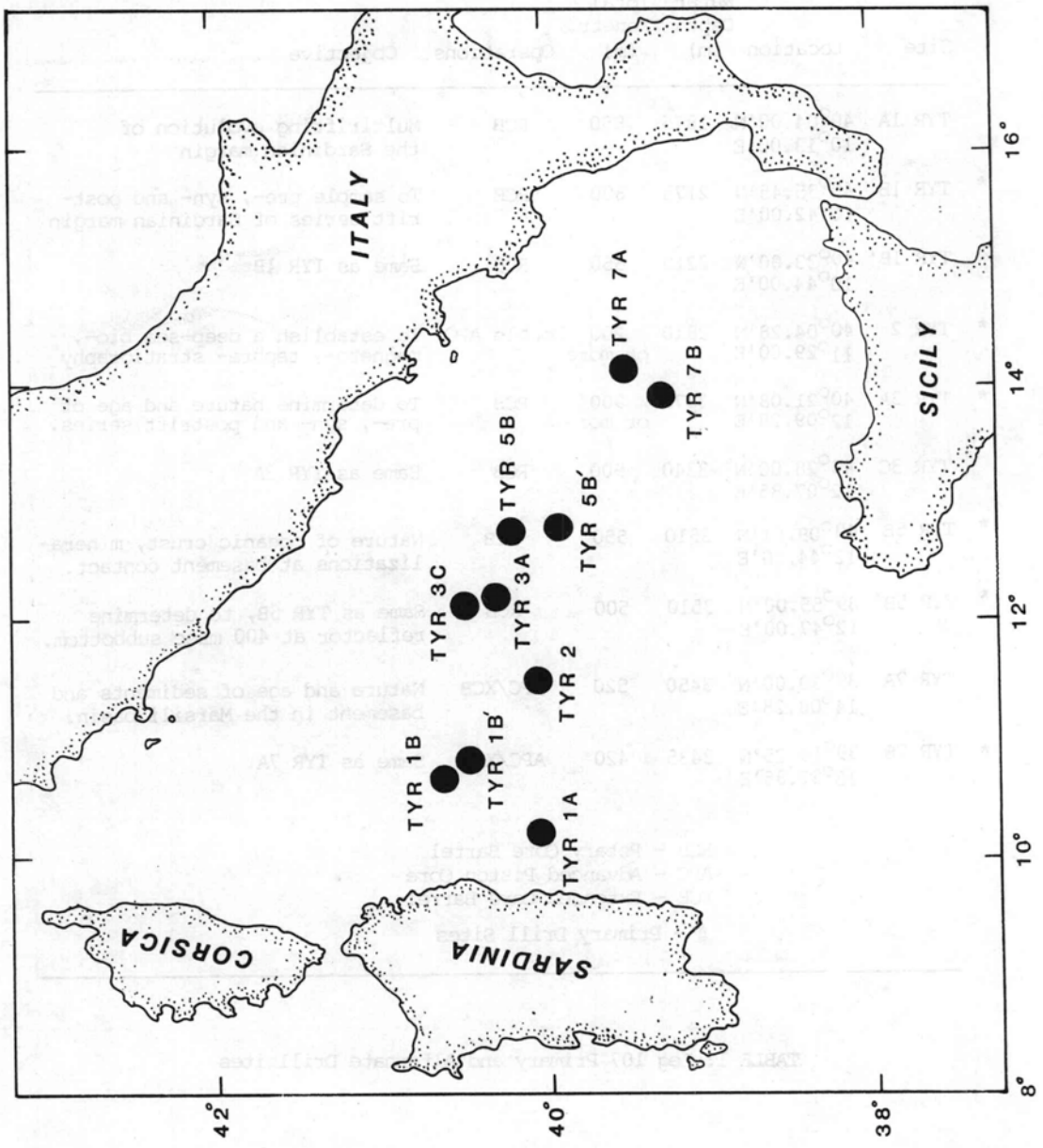


Figure 2: Location of ODP Leg 107 Primary and Alternate drillsites.

	Site	Location	Water Depth (m)	Total Penetr. (m)	Operations	Objective
	TYR 1A	40°04.00'N 10°13.00'E	1875	850	RCB	Multirifting evolution of the Sardinian margin
*	TYR 1B	40°35.45'N 10°42.00'E	2175	800	RCB	To sample pre-, syn- and post-rift series of Sardinian margin
	TYR 1B'	40°33.00'N 10°44.00'E	2210	550	RCB	Same as TYR 1B
*	TYR 2	40°04.28'N 11°29.00'E	2810	200 or more	Double APC	To establish a deep-sea bio-, magneto-, tephra- stratigraphy
*	TYR 3A	40°21.08'N 12°09.28'E	3375	900 or more	RCB	To determine nature and age of pre-, syn- and postrift series.
	TYR 3C	40°28.00'N 12°07.85'E	3340	900	RCB	Same as TYR 3A
*	TYR 5B	40°09.61'N 12°44.00'E	3510	550	RCB	Nature of oceanic crust, mineralizations at basement contact.
*	TYR 5B'	39°55.00'N 12°47.00'E	3510	500	RCB	Same as TYR 5B, to determine reflector at 400 msec subbottom.
	TYR 7A	39°30.00'N 14°08.28'E	3450	520	APC/XCB	Nature and age of sediments and basement in the Marsili basin.
*	TYR 7B	39°19.25'N 13°52.85'E	3435	420	APC/XCB	Same as TYR 7A

RCB - Rotary Core Barrel
APC - Advanced Piston Core
XCB - Extended Core Barrel

* - Primary Drill Sites

TABLE 1: Leg 107 Primary and Alternate Drillsites

compared to that of Marsili basin basalts.

A secondary back-arc basin objective of Leg 107 is to explore the balance between volcanic arc and back-arc basin volcanism along the eastern edge of the basin by drilling the flank of the Marsili seamount (Fig. 1). The recovery of volcanic flows and volcaniclastic sediments of calc-alkaline and thoeliitic composition will provide critical constraints on the volcanic "plumbing" system within the seamount and on internal magmatic processes through the examination of the timing of these two types of volcanism, the nature of the contact between them and the presence/absence of rocks with intermediate chemistries.

The final objective of Leg 107 is to compare the history of extrusion and subsidence in the Tyrrhenian as it relates to the collision history of the surrounding mountain chains. By drilling through key seismic reflectors at different locations in the basin, it will be possible to determine whether these features are the product of changes in the sedimentation regime as related to changes in basin subsidence rate, to calibrate the seismic stratigraphy of the basin, and relate this stratigraphy with the activity of many of the normal faults of the basin.

REFERENCES

Barberi, F., Innocenti, F., Ferrara, G., Keller, J., Villari, L., 1974. Evolution of the Eolian Arc volcanism (Southern Tyrrhenian Sea). Earth Planet. Sci. Lett., 21;: 269-276.

Boccaletti, M., Horvath, F., Loddo, M., Mongelli, F., Stegena, L., 1976. The Tyrrhenian and Pannonian basins: a comparison of two Mediterranean interarc basins. Tectonophysics, 35: 45-69.

Boillot, G., Grimaud, S., Mauffret, A., Mougenot, D.,Mergoil-Daniel, J., Kornprobst, J., and Torrent, G., 1980. Ocean-continent boundary off the Iberian margin: a serpentinite diapir west of the Galicia bank. Earth Planet.Sci. Lett., 48: 23-34.

Bolis, G., Capelli, V., Marinelli, M., 1981. Aeromagnetic data of the Italian area: instrumental to a better comprehension of the basement main characteristic in Italy, Carta Magnetica d'Italia, AGIP-43rd E.A.E.G. meeting in Venezia (Italy).

Dietrich, V., Emmerman, R., Puchett, H., Keller, J., 1978. Oceanic basalt from the Tyrrhenian basin, DSDP Leg 42A, Hole 373A. In Hsu, K.J., Montadert, L., et al., 1978. Initial Reports of the Deep Sea Drilling Project, Vol. 42, Part 1: Washington (U.S. Government Printing Office): 515-530.

Gasparini, C., Iannacone, I., Scandone, P., Scarpa, R., 1982. Seismotectonics of the Calabrian Arc. Tectonophysics, 84: 131-150.

Hutchinson, I., von Herzen, R., Louden, K., Sclater, J., Jemek, J., 1985. Heat flow in the Balearic and Tyrrhenian basins, Western Mediterranean. Journal of Geophysical Research, 90 (B1): 685-701.

Hsu, K.J., Montadert, L., et al., 1978. Initial Reports of the Deep Sea Drilling Project, 42, Part 1: Washington (U.S. Government Printing Office).

Maliverno, A., and Ryan, W., in press. The evolution of the Tyrrhenian Sea and of the Apenninic orogenic belt by arc migration. Tectonics.

Moussat, E., 1983. Evolution de la Mer Tyrrhenienne centrale et orientale et de ses marges septentrionales en relation avec la neotectonique dans l'Arc Calabrais. These 3° Cycle, Universite P. et M. Curie, 122 p., 98 fig.

Morelli, C., 1970. Physiography and magnetism of the Tyrrhenian Sea. Boll. Geof. Teor. Appl., 12, 48: 275-309.

Panza, G.F., Calcannile, G., Scandone, P., Mueller, S., 1980. La struttura profonda dell area Mediterrarea. Le Scienze, 141: 60-69.

Recq, M., Rehault, J.P., Steinmertz, L., Fabbri, A., 1984.Amincicement de la croute et accretion au centre du bassin Tyrrhenien d'apres la sismique refraction. Marine Geology, 55: 411-428.

Ritsema, A.R., 1979. Active or passive subduction at the Calabrian Arc. Geologie en Mijnbouw, 58 (2): 127-134.

Steckler, M.S. and Watts, A.B., 1982. Subsidence history and tectonic evolution of Atlantic type continental margins. In: Scrutten, R.A. (Editor): Dynamic Passive Margin, Geodynamics Series, Vol. 6, American Geophysical Union, Washington, D.C.: 184-196.

Watts, A.B. and Ryan, W.B.F., 1976. Flexure of the lithosphere and continental margin basins, Tectonophysics, 36: 25-44.

SCIENTIFIC OBJECTIVES FOR LEG 108

The following paragraphs are excerpted from the Scientific Prospectus for Leg 108 as prepared by the Ocean Drilling Program. Additional information may be obtained from J.G. Baldauf, Staff Science Representative for Leg 108 or Robert Kidd, Manager of Science Operations. Both are located at Texas A&M University, College Station, Texas 77843-3469.

Leg 108 is scheduled to depart from Marseilles, France on 23 February 1986 and to arrive in Dakar, Senegal on 21 April 1986. During this time period, JOIDES RESOLUTION will drill a transect of 11 sites, crossing a number of oceanic and atmospheric regimes and boundaries, from approximately 23°N to approximately 02°S. Most of these sites will penetrate well into the Neogene section of the geologic record. All sites will be continously cored with double HPC coring to refusal and one hole at each site will be XCB-drilled to the total depth of the drillhole.

The proposed Leg 108 transect will be linked to the six sites, from 37°-54°N in the eastern North Atlantic (Kidd et al., in press), occupied during DSDP Leg 94 to create a unique and very valuable paleoenvironmental transect which covers nearly 60° of latitude. The first five sites (Sites 139R, MAU 4, MAU 5, MAU 6 and SLR 1; Figure 1, Table 1) are in coastal margin regions with relatively complicated tectonic and sedimentologic settings. In comparison, the last six sites (Sites EQ 3, EQ 4_A, EQ 5, EQ 6, EQ 7 and EQ 9; Figure 1, Table 1) are located in deeper water settings in areas with both seismic and piston core coverage.

The scientific objectives of Leg 108 will address the latitudinal stability, during the Neogene, of the meterological equator and the Intertropical Convergence Zone (ITCZ). The focal points of this investigation will be the oceanographic divergence along the equator, characterized by a northward-flowing cold water advection pattern which changes in a southeastwardly direction into the Benguela Current, and the eastern boundary current-upwelling region between the Cape Verde Islands and the northwest African coast.

Previous investigations (Sarnthein et al., 1981,1982; Stein and Sarnthein, 1984) have suggested that understanding the history of upwelling along NW Africa is a major undertaking, both in defining the latitudinal persistence of the upwelling cells during varying climates and in assessing its importance in a broader climatic context. The solution to the these problems may be found by drilling at areas within (at Site MAU-6), outside of (at Site MAU-5,) and marginal to (at Site 139-R) the main upwelling area. Drilling at these locations should aid in resolving questions concerning the role that upwelling has played in Atlantic Ocean paleo-productivity, in variations in the global CO_2 budget and in the deposition of sediments rich in organic carbon.

In addition, the equatorial Atlantic is a source of important biogenic information, particularly concerning the vertical distribution of planktonic assemblages. Studies (Fairbanks et al., 1982; Curry et al., 1983) indicate that the seasonal movement of the thermocline into and out of the euphotic zone in the Panama Basin leaves an imprint on the distribution of foraminiferal assemblages deposited on the seafloor. Similarly, the seasonal changes in wind stress along the NW African coast, due to the varying intensities of the trade winds, produce sharp variations in the

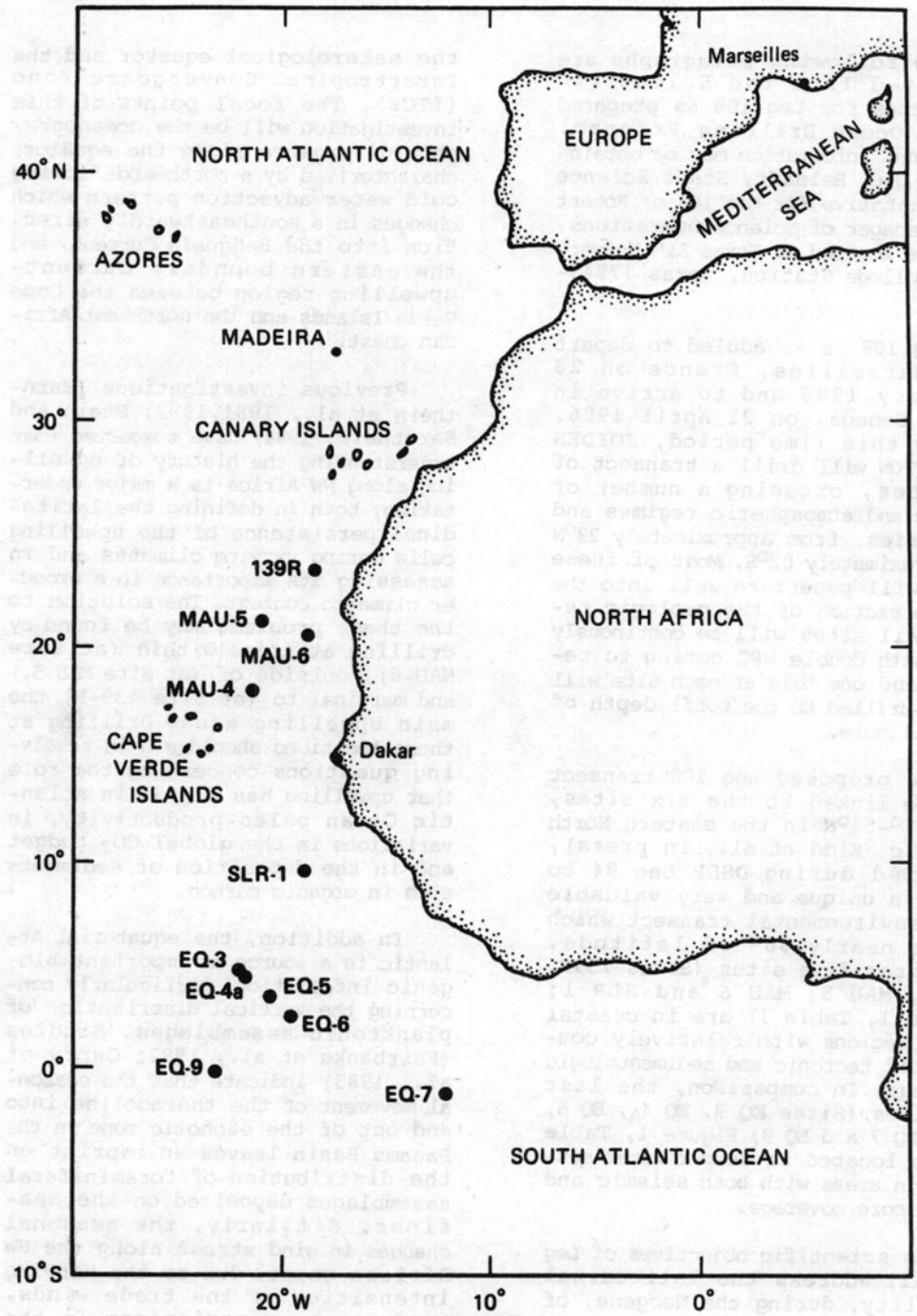


FIGURE 1

Location of Leg 108 drill sites.

thermocline depth within the north and south Equatorial Currents and in the Equatorial Countercurrent. Drilling at sites MAU 4/5/6 and EQ 3/7/9 will further examine the relationship between fluctuations in thermocline depth and the foram assemblage boundaries as it relates to the African margin.

Other paleoceanographic information to be gained from drilling at these sites includes the development of a detailed history of low latitude biogenic evolutionary changes and an examination of the response by this area to major gateway changes in Atlantic circulation (e.g. the closure of the Tethyan seaway, the Messinian salinity crisis and the closure of the Panama-American isthmus.

ATMOSPHERIC CIRCULATION AND AFRICAN ARIDITY

Cores from the eastern and central Atlantic have been found to contain a variety of windblown components (silt, clays, pollen etc.) that indicate a history of changes in both atmospheric circulation and continental aridity. These components further document cycles of aridity and humidity from sources in equatorial and northwestern Africa. An understanding of these events could lead to the unravelling of the history and causes of the gradual Neogene desertification of Africa (Sarnthein et al., 1982) and the evolution of the 23,000 yr. cycles of aridity documented by Pokras and Mix (1985) for the late Quaternary. Drilling at Sites 139-R. MAU 4, MAU 5 and MAU 6 will hopefully sample these changes as they were recorded over the long history of the Neogene.

DEEP WATER PALEOCEANOGRAPHY

The Sierra Leone Rise (5°N, 21°W) originated 80 m.y. ago at the Mid-Atlantic Ridge and has continued thoughout Tertiary and Plio-Pleistocene times to receive a continuous rain of pelagic material (Supko, Perch-Neilson et al, 1977; Lancelot, Seibold et al., 1977; Sarnthein et al., 1984; Stein and Sarnthein, 1984). Four sites (Sites EQ 3/4/5 and 6; Figure 1, Table 1), along the summit and southern slope of the rise, have been chosen to examine the history of deep water circulation from Neogene times using HPC/XCB coring techniques. Further, sampling at Sites SLR-1, 139-R, MAU 4/5 and 6 will monitor bottom water exchange and attempt to determine the cause of erosional events that have created widespread reflectors in seismic records from this area.

ICE VOLUME/OCEAN-ISOTOPIC COMPOSITION

Sites 139-R, MAU 4/5/6, EQ 6/7 and EQ 9 (Figure 1, Table 1) will address changes in ocean $S^{13}C$ during the last 40 million years. These changes will be monitored by examining the sediments underlying the shallow thermocline regions and by using oxygen isotopes to monitor changes in global ice volume during the Tertiary.

EOLIAN SAND TURBIDITES

Large scale sand turbidites, attributed to phases of extreme continental aridity during which Saharan sands accumulated on the continental margin at low sealevel stands, exist on continental rise off the central Sahara. Coring at Site MAU 5 will aid in examining the diagenetic history and the physical and lithological properties of these sand bodies.

TABLE 1

LEG 108 OCEAN DRILLING PROGRAM
NORTHWEST AFRICAN MARGIN

Location of proposed sites

Drill Sequence	Site Number	Latitude	Longitude	Water Depth	Locality	Hole Type
1	139R	23°22.3'N	18°25.5'W	2887m	outer rise off ex-Spanish Sahara	double HPC/XCB to 350m
1	MAU5	21°20.0'N	20°45.0'W	4023m	Outer rise W of Cape Blanc (close to Site 140)	double HPC/XCB to 250m
1	MAU6	20°56.5'N	18°40.0'W	2662m	upper rise W of Cape Blanc	double HPC/XCB to 300m
1	MAU4	18°04.5'N	21°01.5'W	3050m	Cape Verde Rise (close to Site 368)	double HPC/XCB to 300m
1	SLR1	09°58.9'N	19°15.3'W	4300m	NE Sierra Leone Rise; Kane Gap	double HPC/XCB to 300m
2	EQ3	04°45.0'N	20°58.0'W	2650m	South Slope of Sierra Leone Rise	double HPC/XCB to 400m
2	EQ4a	04°12.0'N	20°35.0'W	3900m	South Slope of Sierra Leone Rise	double HPC/XCB to 150m
2	EQ5	03°30.0'N	20°10,0'W	4300m	South Slope of Sierra Leone Rise	double HPC/XCB to 150m
2	EQ6	02°45.0'N	19°04.0'W	4800m	South Slope of Sierra Leone Rise	double HPC/XCB to 150m
3	EQ9	00°12.0'S	23°09.0'W	3706m	East flank Mid-Atlantic Ridge	double HPC/XCB to 180m
3	EQ7	01°21.0'S	11°55.0'W	3899m	East flank Mid-Atlantic Ridge	double HPC/XCB to 150m

REFERENCES

Curry, W.B., Thunell, R.C. and Honjo, S., 1983, Seasonal chnages in the isotopic cmposition of planktonic foraminifera collected in Panama Basin sediment traps. Earth and Planetary Sci. Lett., 64, 33-43.

Fairbanks, R.G., Sverdlove, M., Free, R., Wiebe, P. and Be', A., 1982, Vertical distribution and isotopic fractionation of living planktonic foraminifera from the Panama Basin, Nature, 298, 841-844.

Lancelot, Y., Seibold, E., et al., 1977, Init. Repts. DSDP, 41: Washington (US Govt. Printing Office), 1258.

Pokras, E. and Mix, A., 1985, Hemispheric asymmetry of late Pleistocene climate in tropical West Africa: aeolian diatom evidence. EOS, 64, 738.

Sarnthein, M., Tetzlaff, G., Koopman, B., Wolter, K. and Pflaumann, U., 1981, Glacial and interglacial wind regimes over the eastern subtropical Atlantic and NW Africa. Nature, vol 293, 193-196.

Sarnthein, M., Thiede, J., Pflaumann, U., Erlenkeuser, H., Futterer, D., Koopman, B., Lange, H. and Seibold, E., 1982, Atmospheric and oceanic circulation patterns off Northwest Africa during the past 25 million years. In von Rad et al. (Eds.), Geology of the Northwest Africa Continental Margin, Heidelberg (Springer-Verlag), 545-604.

Sarnthein, M., Erlenkeuser, H., von Grafenstein, R. and Schroeder, C., 1984, Stable-isotope stratigraphy for the last 750,000 years: METEOR core 13519 from the eastern equatorial Atlantic. METEOR Forsch-Ergebnisse C. 38, 9-24.

Stein, R. and Sarnthein, M., 1984, Late Neogene events of atmospheric and oceanic circulation offshore Northwest Africa: high-resolution record from deep-sea sediments. Paleoecol. of Africa, 16, 9-36.

Supko, P.R., Perch-Nielson, K., et al., 1977, Init. Repts. DSDP, 39, Washington (US Govt. Printing Office), 1099-1132.

ODP SCIENCE OPERATOR REPORT

I. CRUISES AND SITES COMPLETED

A. Leg 105: Labrador Sea and Baffin Bay

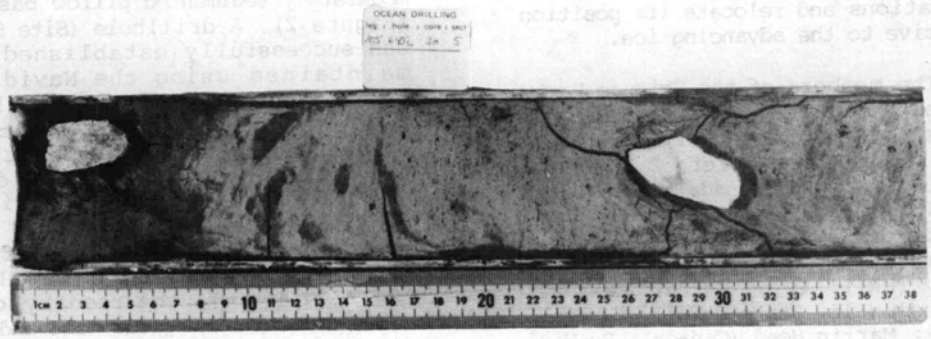
The objectives of Leg 105 were to obtain Paleogene and Neogene sediments in order to document the tectonic and paleoceanographic evolution of these basins. Baffin Bay and the Labrador Sea played a key role in the evolution of the climate of the North Atlantic region as they formed the primary Arctic-Atlantic conduit prior to the opening of the Norwegian Sea in the Eocene.

Site 645 is located above the Arctic Circle in northwest Baffin Bay at 70°27.5'N, 64°39.4'W in a water depth of 2020 m. This site included one re-entry hole and total penetration was 1147.1 m subbottom. The sequence recovered has a pronounced terrigenous character that contains a surprising lack of planktonic microfossils. The section is divided into three lithostratigraphic units: Unit I- a late Pleistocene to Recent gray calcareous silty clay, dark olive-gray silty mud to light tan to gray gravel-bearing calcareous sand and silty mud with scattered cobble-size dropstones (Figure 1), Unit II- a late Pliocene to early Pleistocene noncalcareous mud, clayey silt and silty clay with up to cobble size dropstones and Unit III- a poorly sorted, early to late Pliocene sedimentary unit with olive-gray, muddy sandstones to silty mudstones.

In the Labrador Sea two sites (Sites 646 and 647) were drilled. Site 646 is located in the southeastern Labrador Sea in an area northwest of the axis of the Eirik Ridge at 58°12.6'N, 48° 22.1'W at a water depth of 3450 m. The total depth of penetration was 766.7 m subbottom with an average recovery of 55.7%. Two major lithologic units were recovered: Unit I- contains late Pliocene to Recent greenish gray to light gray silty clays and clayey silts with up to 40% carbonate and Unit II- contains late Miocene to late Pliocene dark gray to greenish gray silty claystones to clayey siltstones.

Site 647 was drilled in a water depth of 3869 m at 53°19.9'N, 45°15.7'W in the northern Labrador Sea. Four major sedimentary units were encountered between the seafloor and 699 m subbottom with basalt recovered from 699 m to 736 m subbottom. Unit I consisted of late Pliocene to Recent interbedded gray to light brownish gray silty clays, clayey muds and clayey silts with highly variable amounts of biogenic carbonate. Unit II consisted of early to late Miocene mottled olive-yellow to yellowish brown silty mud, clay and nannofossil clay. Iron and manganese micronodules were scattered throughout the section but were found to increase in abundance towards the base of the unit. Unit III contained middle Eocene to early Miocene greenish gray claystone to clayey ooze. Unit IV contained middle Eocene to early Eocene greenish gray claystone and foraminifer-nannofossil bearing claystone. In addition aphyric to moderately pyroxene-phyric basalt, generally massive in appearance and comprising probable thick flow units, was recovered from 699.0-736 m subbottom.

An important part of the successful operations conducted on Leg 105 was the ice management program, which was developed in conjunction with the Canadian Gas and Oil Lands Administration (COGLA). Under this program, the ice picket boat CHESTER patrolled approximately 6-15 miles upcurrent from RESOLUTION, identifying the location of "growlers" and other small icebergs and relaying this information to an ice observer on RESOLUTION. This information,



Section 5 of Core 3H (20 meters subbottom) from Hole 645C (Baffin Bay) shows the gradational change from a bioturbated light brownish-gray muddy sand (on the left) into a dark greenish-gray muddy silt (on the right). Glacial dropstones were observed in both lithologies. Photo courtesy of K. Lighty (ODP/TAMU). Core interpretation courtesy of B. Clement (ODP/TAMU).

FIGURE 1

when plotted and converted to iceberg trajectories, gave the drillship the necessary 3-6 hours warning time that it needed to terminate operations and relocate its position relative to the advancing ice.

The members of the Science Party on Leg 105 were: M. Arthur (Univ. of Rhode Island), Co-chief; S. Srivastava (Canada), Co-chief; B. Clement (TAMU); A. Aksu (Canada); J. Baldauf (TAMU); G. Bohrman (FRG); W. Busch (Univ. of New Orleans); T. Cederberg (Denmark); M. Cremer (France); K. Dadey (URI); A. de Vernal (Canada); J. Firth (Fla. State Univ.); F. Hall (URI); Martin Head (Canada); R. Hiscott (Canada); R. Jerrard (L-DGO); M. Kaminsky (WHOI); D. Lazarus (WHOI); A.-L. Monjanel (France); O. Nielsen (Denmark); R. Stein (FRG); F. Thiebault (France); J. Zachos (URI); H. Zimmerman (Union Col.)

B. Leg 106: Bare-rock Drilling on the Mid-Atlantic Ridge

Leg 106 has drilled zero-age crust in the median valley of the Mid-Atlantic Ridge south of the Kane Fracture Zone. The leg employed a specially designed bare rock guidebase and used totally new drilling technology.

The primary site (Site 648-Serocki Volcano) was located along the southeastern margin of a volcano with a central caldera. The summit plateau at this location, as viewed by a TV/sonar camera deployed on the outside of the drillstring, consisted of pillow lavas with a light sediment cover and relief of less than one meter. One exploratory hole (Site 648A) was drilled prior to the deployment of the hard rock guidebase.

After the guidebase deployment was completed, another TV survey showed that the operation was a success and the guidebase had been installed at a water depth of 3344 m, with one leg wedged in a fissure, on moderately sedimented pillow basalts (Figure 2). A drillhole (Site 648B) was successfully established and maintained using the Navidrill positive-displacement drilling motors and the top drive. At the completion of drilling operations the drillhole reached a total depth of 33.3 m below the seafloor (Figure 3) with total recovery of 6.2 m of material. The upper portion of the hole was reamed to a width of 18-1/2" (46 cm), the reentry cone was landed in the guide base and 16" (40.5 cm) casing was set. Cementing of the hole had to be carried out several times during operations in order to improve its structural integrity because of recurrent slumping between pipe trips.

The average recovery for the 26.7 m of cored hole was 23% with two cores and part of a third filled with basaltic rubble. All of the basalts recovered from Site 648 are of one lithological type: fresh plagioclase-olivine sparsely phyric basalt. The texture of the groundmass ranges from glassy, to subvariolitic, to intersertal, to intergranular. This variety indicates that most of the samples are probably derived from various parts of pillow lavas. The generalized presence of plagioclase and olivine glomerocrysts, combined with the absence of chromian spinel suggests that Site 648 basalts are typical, moderately evolved mid-ocean ridge basalts.

In summary, at Site 648, Leg 106 has successfully demonstrated the feasibility of bare rock spud-in, drilling and coring in essentially "zero age" crust at a mid-ocean ridge. Operations at Site 648B were terminated with 6 days remaining in the program because degrading hole conditions and the previous loss of

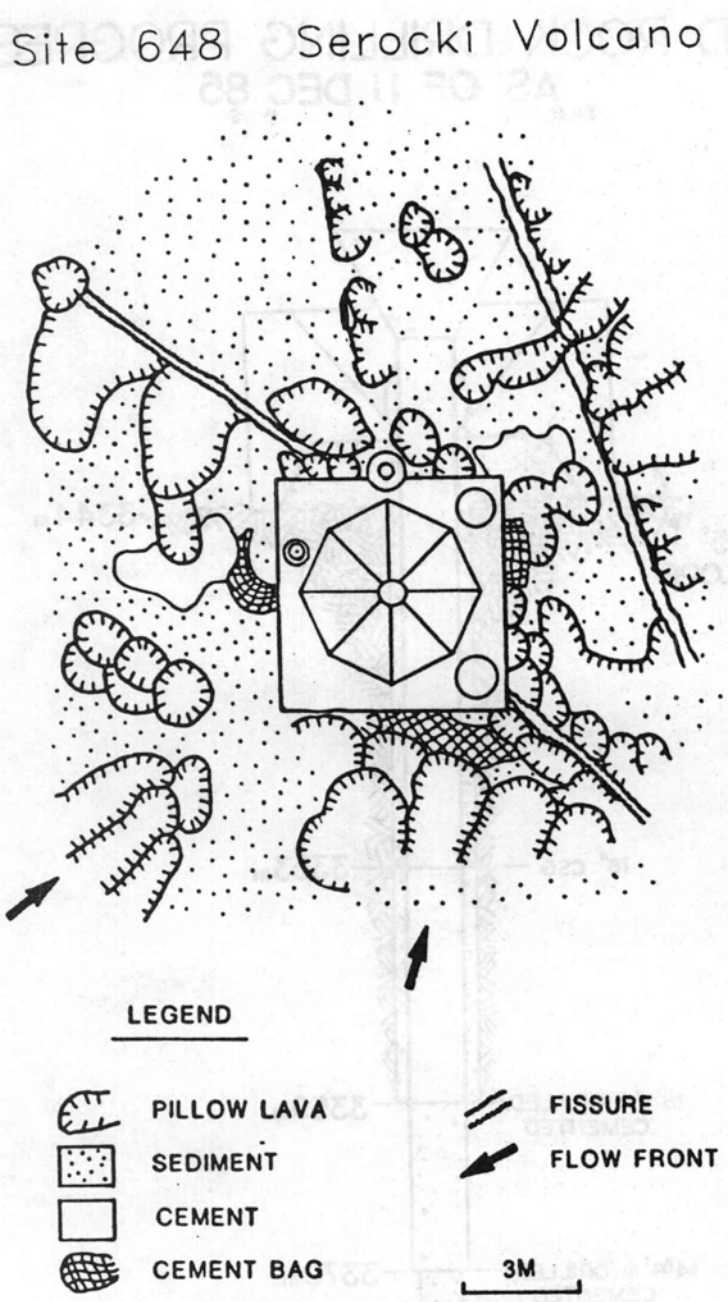


FIGURE 2

A plan view of Site 648 that illustrates the location of the drilling guidebase (center) in relation to neighboring tectonic, volcanic and sedimentologic features and lithologies.

HARD ROCK DRILLING PROGRESS
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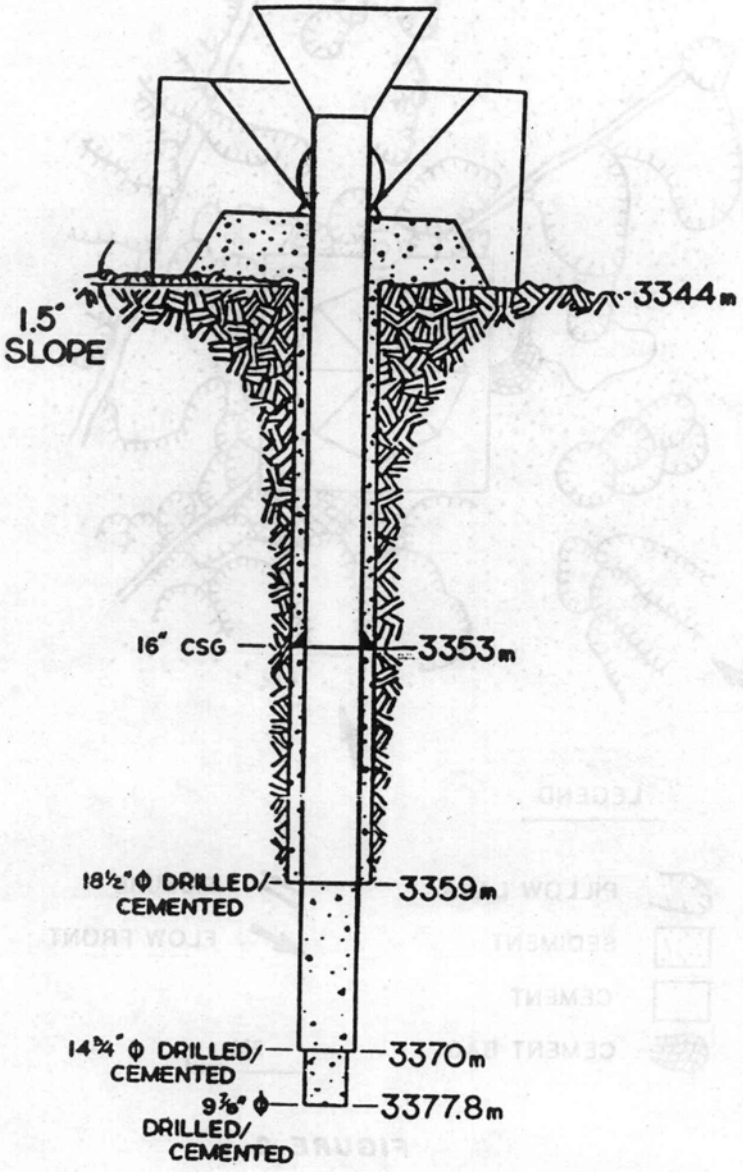


FIGURE 3

drilling equipment combined to endanger the open hole conditions and the drilling efforts invested up to that point. The hole at the site has been left open, has been cased and completely cemented and can be drilled and deepened on subsequent legs (beginning with Leg 109). Further, it was strongly suspected that smaller hole diameters and frequent cementing of the formation are utmost necessities when drilling and coring in the fractured lithologies of zero-aged crust. In addition, the TV camera and Mesotech sonar combined with the drillship's dynamic positioning capabilities, proved to be powerful tools for conducting surveys of the seafloor and in the location of potential drilling sites.

The science party decided to dedicate the time remaining on the cruise to surveying a hydrothermal area located approximately 25 km south of the Kane Fracture Zone at the Snake Pit hydrothermal vent area (23°22.08'N, 44°59.00' W). Photographic surveys of the surrounding seafloor indicated that the area is characterized by a vent field of numerous chimneys, mineralized mounds and one large "black smoker" (located approximately 200 m southeast of the guide beacon). The vent field is further characterized by a diverse biological community that contrasts markedly to that observed at Pacific spreading centers and generally consists of organisms smaller and more mobile than those previously found at other submarine hydrothermal vent settings. The most common forms of life were large, flattened, swimming crustacea, small shrimp-like organisms and long, flat, snake-like swimmers. In addition, sessile organisms (possibly limpets or anemones) were found to litter the seafloor around the vents.

Several unsupported barerock spud-ins (i.e. without the use of a drilling guidebase) were attempted in this area (Sites 649A-G) in order to recover hydrothermal sediment and basalt. This information was later used to construct a cross-sectional model of an active hydrothermal vent (Figure 4). Hole 649A was drilled immediately adjacent to a chimney structure to a depth of 7.5 m. However, there was no material recovered. Hole 649B, located adjacent to Hole 649A, cored 6.5 m of material, recovering 6.0 m (90% recovery rate) of highly disturbed material which consisted of Zn, Fe and Cu sulfides. Hole 649C, located 6 m north of the previous holes, cored 3.5 m and recovered 0.15 m (4.3% recovery rate) of fresh, fine-grained and glassy aphyric basaltic rubble. Sites 649D-G were drilled in closer proximity to the active chimney, however, no significant amount of material was recovered.

The science party onboard JOIDES RESOLUTION for Leg 106 consisted of: R. Detrick, Co-chief Scientist (URI); J. Honnorez, Co-chief Scientist (U. of Miami); A. Adamson (TAMU); G. Brass (NSF); K. Gillis (Canada); S. Humphris (WHOI); C. Mevel (France); P. Meyer (WHOI); N. Petersen (FRG); M. Rautenschlein (FRG); T. Shibata (Japan); H. Staudigel (SIO); A. Woolridge (U. of Miami); K. Yamamoto (Japan).

II. DRILLING/ENGINEERING REPORT

Development of new or improved tools and techniques continues, as scientific mandates for specific requirements or capabilities become clear. Development projects have been completed or are in progress for Legs 106/109, 107, 108, 110 and 112. The post cruise results for Leg 106 and plans for hard-rock drilling on Leg 109 will be reported in the June 1986 issue of the JOIDES Journal.

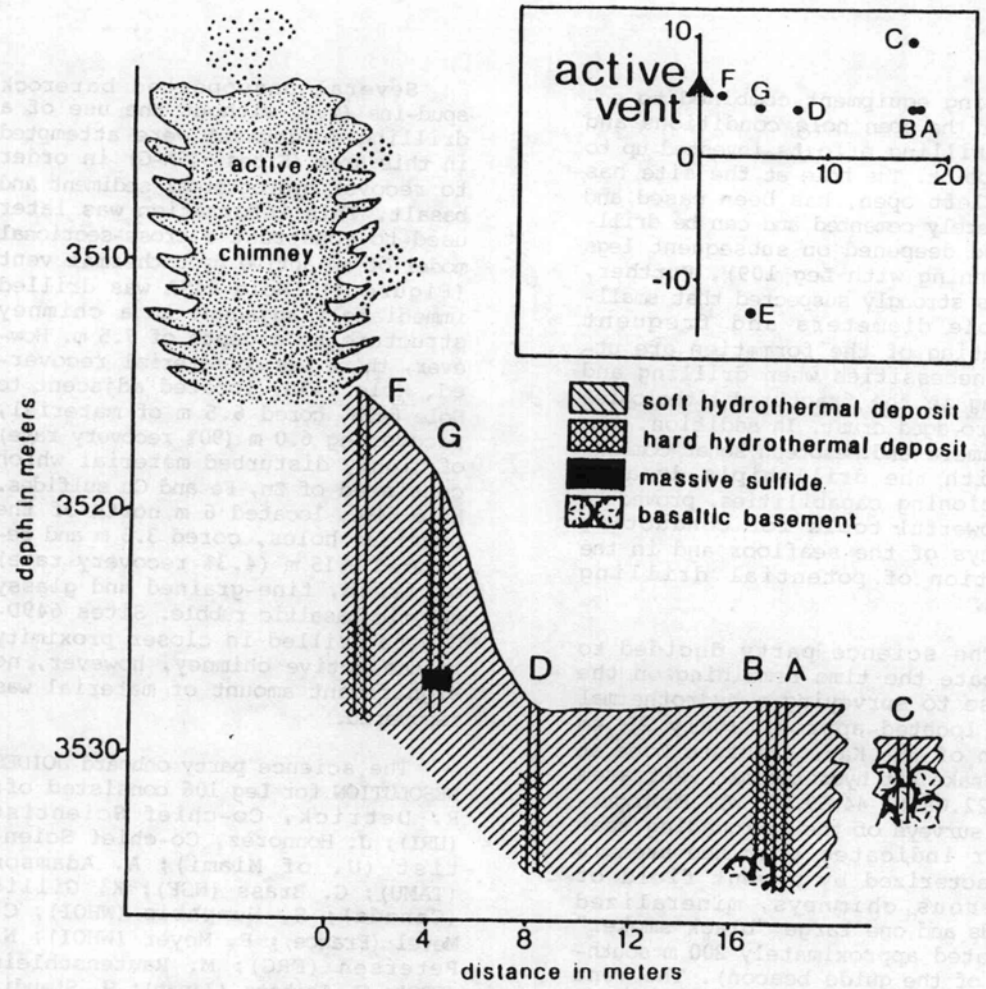


FIGURE 4

Composite model of an active vent in the Snake Pit hydrothermal area. The inset shows drill site locations in relation to the vent area.

The following paragraphs are a summary of development projects targeted for Legs 107 and 108.

Leg 107

The coring operations planned in the Tyrrhenian Sea do not require the development of any new drilling or coring techniques or equipment. At least two sites will be cored to moderate depths using the hydraulic piston coring/extended core barrel (APC/XCB) system. Several sites will consist of deeper penetration into both sediment and basement rock, using the conventional rotary core barrel (RCB) system. Most, if not all, holes will be logged. No re-entry holes are planned.

A new Hydraulic Bit Release (HBR-107) will be field-tested for the first time on this leg, to expedite achieving open-ended pipe for logging all single bit RCB holes. The past history of the HBR has been fraught with inconsistent and unreliable performance. The latest design is aimed at higher reliability, lower operating cost, facilitated assembly and deck testing. The HBR-107 has completed all necessary prototype evaluation and shop testing.

A new venting system for the Extended Core Barrel (XCB) will be tested downhole in actual coring operations for the first time during the leg. The Venturi vent sub was deck-tested onboard RESOLUTION during the Leg 104B, a transit leg between Stavanger, Norway and St. Johns, Newfoundland, and showed significant performance capabilities. The deck-tested unit will be used in an XCB coring tool during routine operations. The Venturi vent sub concept offers possibilities of reduced core disturbance and increased recovery with XCB system. If positive results can be demonstrated, the technology could be extended to the RCB system.

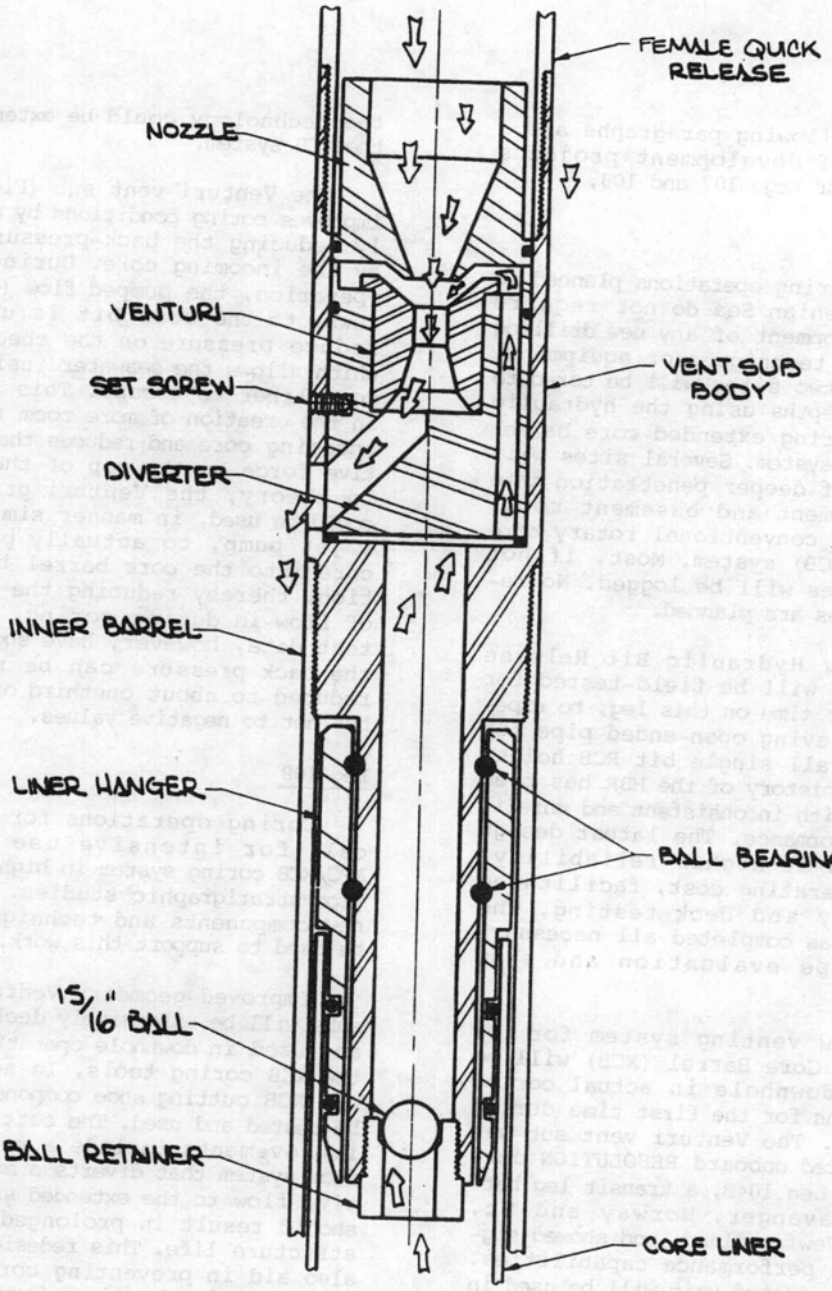
The Venturi vent sub (Figure 5) improves coring conditions by markedly reducing the back-pressure felt by the incoming core. During this operation, the pumped flow (see arrows) to the core bit is used to reduce pressure on the check ball which allows the seawater inside the core liner to escape. This results in the creation of more room for the incoming core and reduces the resistive force on the top of the core. In theory, the Venturi principle could be used, in manner similar to a jet pump, to actually pull the core into the core barrel by suction, thereby reducing the chances of flow-in during coring. Actual test data, however, have shown that the back pressure can be readily reduced to about onethird of normal but not to negative values.

Leg 108

Coring operations for Leg 108 call for intensive use of the APC/XCB coring system in high resolution stratigraphic studies. Several new components and techniques will be used to support this work.

Improved-geometry Venturi vent subs will be extensively deck-tested and used in downhole operations with the XCB coring tools. In addition, new XCB cutting shoe components will be tested and used. The cutting shoe improvements include a redesigned flow system that diverts a more positive flow to the extended shoe which should result in prolonged cutting structure life. This redesign should also aid in preventing core blockages and in freeing jammed core catchers.

APC operations will be enhanced by new Integral-Seal Liner Seal Subs. These components will be tested for possible replacement of the



VENTURI VENT SUB - XCB CORING SYSTEM

FIGURE 5

Cross-sectional view of the Venturi Vent Sub-XCB Coring System

current Liner Seal Subs which use manually-installed O-rings to help prevent core liner failures. In the present system, the O-rings have a persistent habit of being incorporated into the cores, causing significant disturbance when the cores are split. The new subs have rubber seals bonded to the steel on the inside for superior sealing and to keep the seals in place on the outside of the core liner.

Finally, two more new techniques will be attempted on Leg 108. First, the technique of using the heave compensator during piston coring (which was shown to be successful during Leg 105-Baffin Bay/Labrador Sea) will be evaluated and used to the fullest possible extent and a Side Entry Sub (see the Wireline Logging Services Report for more detail) will be used for the first time to deliver logging tools to the bottom of an open hole. This sub will allow the pipe to be tripped up or down the hole while the logging line is in the pipe and the logging tools are downhole. If successful, the ability to work the logging tools through difficult portions of the drillhole will be improved. This should result in an increase in the number of open holes that could be logged.

III. SCIENCE SERVICES

The twelve-month moratorium on data from Leg 100 is over. Leg 100 was the shakedown cruise for JOIDES RESOLUTION and took place in the Gulf of Mexico. Three holes were drilled at Site 625, located near DeSoto Canyon on the west Florida Shelf. Samples from a complete Plio-Pleistocene section down to 235 m subbottom are available. The section consisted of nannofossil ooze, calcareous marl and marly nannofossil ooze. More information can be found in the July 1985 Geotimes article (Rabinowitz, P.D. et al., 1985. Ocean Drilling Program launches first cruise. Geotimes, July, 1985: pp.12-14).

Investigators requiring information about the distribution of samples and/or desiring samples should address their requests to:

The Curator
Ocean Drilling Program
P.O. Drawer GK
College Station, Texas 77841

WIRELINE LOGGING SERVICES OPERATOR REPORT

The following paragraphs are excerpts from monthly reports issued to JOI, Inc. from the Wireline Logging Services Operator. Additional information may be obtained by contacting R. Anderson, Director of Operations or Dr. D. Moos, Scientist-in-Charge at the Borehole Research Group (BRG), Lamont-Doherty Geological Observatory, Palisades, N.Y. 10964.

SUMMARY OF LOGGING RESULTS FROM RECENT ODP CRUISES

Leg 106

Because of the extensive technical program related to bare-rock drilling and guidebase deployment, the potential logging operation was restricted to the Schlumberger standard tool runs which were done at the discretion of the co-chief scientists. No logs were run.

Leg 105

Three holes were logged during Leg 105: 645B (Baffin Bay), 646E (NE Labrador Sea) and 647A (SW Labrador Sea). At all three sites the first logging run was the Schlumberger LSS-DIL-MCD-GR tool (see Table 1 for abbreviations key). At Site 646, a second logging tool, the Schlumberger GST-CNT-NGT tool, was also used. At all three sites, logging was preceeded by hole conditioning which consisted of a wiper trip (raising and lowering the drillstring). None of the sites had conditions favorable enough for logging the hole through the drillstring. Cable and cable head problems occupied a combined total of three hours at the three sites. No other equipment failures occurred.

Site 645

At Site 645, a succession of three shale bridges was encountered which required removal of the logging tool from the hole in order to lower pipe through the bridges. A total of 221 meters, spanning intervals 200.1-242.9 and 280.5-455.2 meters below seafloor, of usable open-hole logs were obtained. The resistivity (DIL) and gamma ray (GR) logs were of good quality while the caliper (MCD) log was fair in a downhole logging mode but poor during logging up the hole. The sonic (LSS) log was initially fair but improved to good after data reprocessing. Of the 36 hours allotted for logging at this site, 23.5 hours were actually operational while the remainder were associated with delays in bit release and the suspension of operations due to icebergs.

Scientific results of logging at Site 645 focussed on using the geophysical logging data to supplement coring information in order to develop an accurate lithostratigraphy for the interval 280-460 m (denoted by arrows on the seismic section of Figure 1). For the interval 350-460 m, substantial amounts of material were recovered, however, recovery rates dropped to near zero for the interval 300-340 m (Columns 6 and 5, Figure 1). A synthetic seismogram (Column 2, Figure 1) for the complete interval was constructed based on the sonic and impedance logs (Columns 4 and 3, Figure 1) and found to be consistent with the seismic profile across the site. This correlation provided a link from core depth to seismic time which aided in locating a major boundary at 3.23 seconds in the traveltime section. In addition this boundary was found to correlate with the base of a coarse-grained lithologic interval from 355-370 m subbottom. Previous stratigraphic studies of the

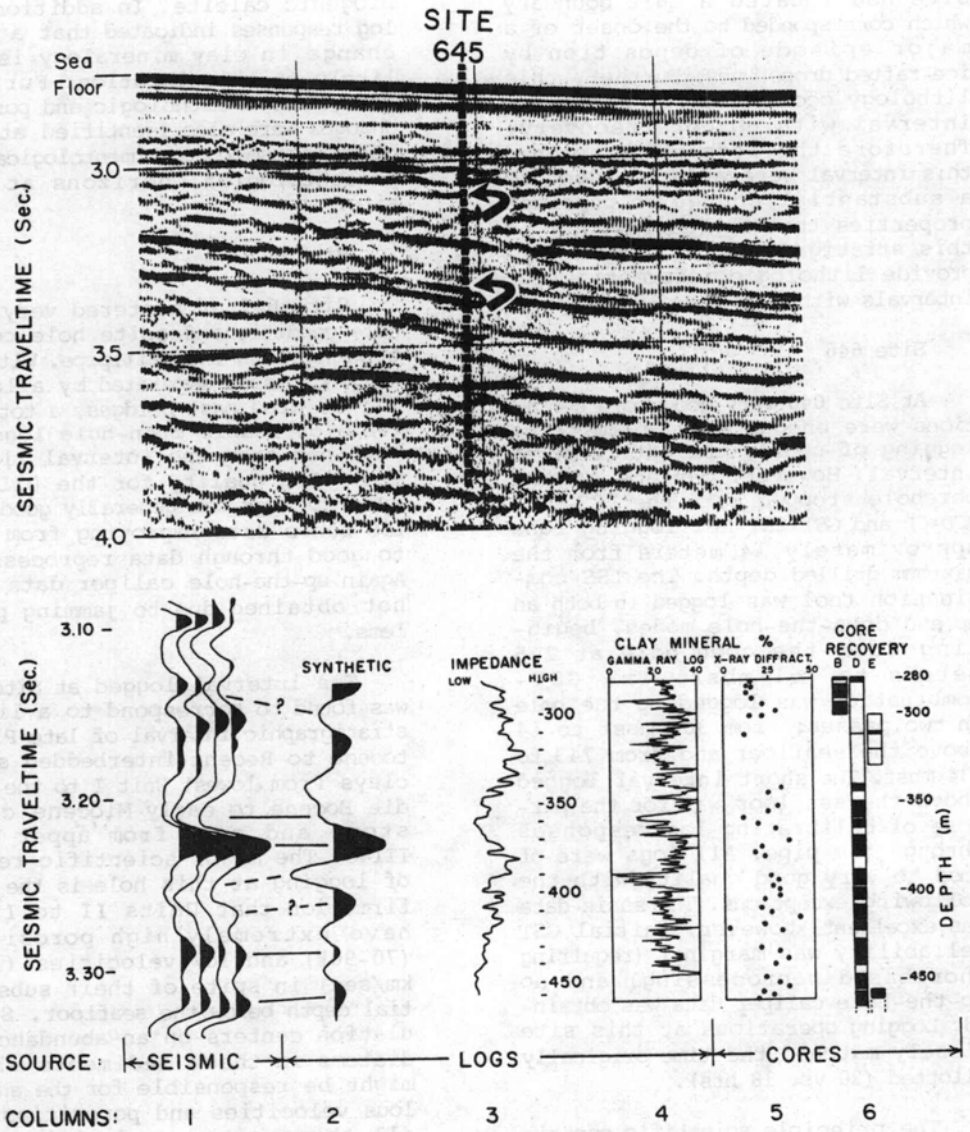


FIGURE 1

Above: Seismic traveltime record from Site 645 (Baffin Bay).
Bottom: Columns 2-6 are the components used to relate core and log information to seismic time (Column 1). Illustration courtesy of R. Jarrard of the Borehole Research Group.

site had located a unit boundary which corresponded to the onset of a major episode of deposition by ice-rafted dropstones. Further, this lithology occurred within a 30 meter interval with no core recovery. Therefore the logs which spanned this interval were able to identify a substantial change in physical properties that may correspond to this stratigraphic boundary and to provide lithologic information for intervals with poor core recovery.

Site 646

At Site 646 very good hole conditions were encountered, permitting logging of nearly the entire cored interval. However, cavings of the borehole stopped both the LSS-DIL-MCD-GR and GST-CNT-NGT logging runs approximately 14 meters from the maximum drilled depth. The LSS-combination tool was logged in both an up and down-the-hole modes, beginning from the open hole at 205 meters to 751 mbsf. The GST-combination was logged up the hole in two passes: from 362 mbsf to 14 above the seafloor and from 743 to 234 mbsf. The short interval logged above the seafloor was for the purpose of calibrating log responses through the pipe. All logs were of good to very good quality with the following exceptions. The sonic data was excellent, however, initial GST reliability was marginal (requiring shorebased reprocessing) and no up-the-hole caliper data was obtained. Logging operations at this site closely matched the time originally allotted (20 vs. 18 hrs).

The principle scientific contribution of logs from Site 646 was a complete tie between core depth and seismic time again through the development of a synthetic seismogram. A major change in log responses was identified at 336 meters below seafloor which correlated with a change from biogenic silica (diatoms) to biogenic calcite. In addition, the log responses indicated that a major change in clay mineralogy is also likely at this location. Furthermore, other lithologic and porosity changes were also identified at many other seismic, sedimentological and paleontological horizons at this site.

Site 647

Site 647 encountered very poor hole conditions despite hole conditioning with the drillpipe. With two logging passes separated by a lowering of pipe past bridges, a total of 146 m of usable open-hole logs was obtained from the interval 114-274 mbsf. Log quality for the DIL, GR and MCD logs was generally good with LSS sonic data improving from fair to good through data reprocessing. Again up-the-hole caliper data were not obtained due to jamming problems.

The interval logged at Site 647 was found to correspond to a lithostratigraphic interval of late Pleistocene to Recent interbedded silty clays from lowest Unit I to the middle Eocene to early Miocene claystone and ooze from upper Unit III-C. The major scientific result of logging at this hole is the confirmation that Units II to III-B have extremely high porosities (70-90%) and low velocities (1.55 km/sec) in spite of their substantial depth below the seafloor. Speculation centers on an abundance of diatoms in these sediments which might be responsible for the anomalous velocities and porosities. At all three sites, velocities were found to be primarily controlled by porosity.

In addition to the lithologic variations between sites, three factors may explain the much better hole conditions at Site 646, relative to Sites 645 and 647. These are

1) that Site 646 was drilled with a larger diameter bit than the rotary core bit used at the other sites, 2) Site 645 was filled with freshwater mud and Site 647 was flushed with mud, these actions induced swelling of clays and 3) Site 646 employed the most thorough hole conditioning prior to logging.

SUMMARY OF LOGGING OPERATIONS

The Wireline Heave Compensator (WHC) performed very well during Leg 105. Results indicated that the system reduced the effects of the ship's heave on the drillstring by at least 80%. Further testing is planned on Leg 107 at which time a Schlumberger GPIT tool (a 3-axis accelerometer) will be used in conjunction with logging runs to quantitively determine the effectivness of the WHC.

The Borehole Research Group has also made a number of significant strides in improving logging operations in boreholes of poor quality. In this regard, L-DGO has discussed with TAMU, industry experts and others various ways in which ODP holes might be drilled so that open hole conditions are more favorable for logging and thereby reduce some of the severe bridge problems encountered during Legs 101-105. A few of these discussions centered on the use of saltwater muds during drilling and logging in order to reduce swelling in shales. Analyses suggest that the frequency with which bridges are encountered in ODP holes is partially attributable to the use of freshwater muds during operations. It was agreed, after consulting ARCO mud specialists, that the use of salt muds would help reduce shale swelling and possibly lessen the frequency of developing bridges in ODP boreholes.

Furthermore the Borehole Research Group, in conjunction with Lamar Hayes of TAMU and Schlumberger, has developed a conceptual approach that utilizes a presently available sidewall entry sub (Figure 2) that is used in deviated hole logging operations. Under this approach, the sub is placed in the ODP drillstring, during logging, in a manner such that the logging cable is passed through the drillstring sub between the mudline and the rigfloor. With this arrangment, the logging tools are able to be retracted into the drillstring when a bridge is encountered. When this occurs, an additional pipe section would be added to the drillstring, the string would then be lowered through the bridge and the tool then lowered through the section below the bridge. The Borehole Research Group, TAMU and Schlumberger will deploy this sub for a test of the feasibility of this technique during Leg 108.

Borehole Research Group engineers have also completed design and fabrication of a modular sinker bar weight system for use with the 12-channel sonic and Borehole Televiewer (BHTV) specialty tools. Using this system, the transit of these specialty tools through the drillstring and through irregular boreholes will be greatly improved, thus reducing the problems that ODP has had with the lighter weight tools getting stuck on bridges.

The Borehole Research Group has also compiled a listing of logging specialists, Schlumberger engineers, tools used on past and on present ODP cruises and logging objectives of each cruise. These items are located in Table 1.

Finally, the Borehole Research Group has hired, as of 1 February

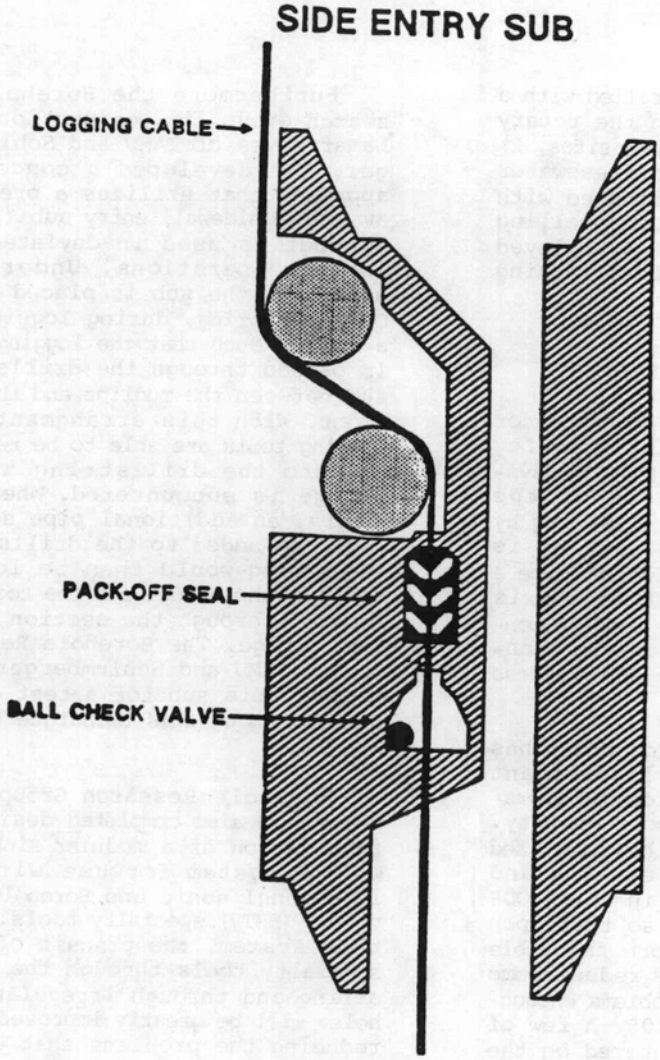


FIGURE 2

Cross-sectional view of the sidewall entry sub that will be tested on ODP Leg 108 (NW Africa).

TABLE 1

LEG #	LAMONT LOGGING STAFF SCIENTIST	SCHLUMBERGER ENGINEER	TOOLS	LOGGING OBJECTIVES
101	C. Williams R. Anderson	J. Marvel B. Packer	GST/CNT LDT/NGT	Logging of deep and shallow water carbonate sequences in Bahamas (Holes 626-D, 627-B and 634-A)
102	D. Moos C. Broglia	J. Skelly	DIL/LSS/GR LDT/CNT/NGT DLL/MCS/BHTV	Logging of 110 m.y. old oceanic crust, Bermuda Rise (Hole 418-A)
103	D. Goldberg D. Roach	L. Geiser	DIL/LSS/GR LDT/CNT/NGT MCS	Logging of post-, syn-, pre-rift sediments of the continental break-up off Spain, Galicia Bank (Hole 637-A, 638-B/C, 639-D, 641-C)
104	P. Lysne C. Barton	J. Skelly	DIL/LSS/GR LDT/CNT/NGT	Logging of dipping seismic reflectors on the Voring Plateau, Norwegian Sea (Holes 642-D, 642-E)
105	R. Jarrard	S. Diana	DIL/LSS/GR GST/CNT/NGT	Logging of post Paleocene sediments in the Baffin Bay and Labrador Sea, Canada (Holes 645-E, 646-B and 647-A)
106	—	E. Derry	—	—
107	J. Mendelson C. Broglia	L. Geiser	DIL/LSS/GR LDT/CNT/NGT GST/MCS/BHTV	Logging of post- and synrift sequences in the upper Sardinian margin and in young oceanic crust Tyrrhenian Sea (Holes 1b, 3a, 5b, and 7a)

Key: DIL= Dual Induction Log
LSS= Long Spacing Tool
GR= Gamma Ray Tool
CNT= Compensated Neutron Tool
NGT= Natural Gamma Ray Spectrometry Tool
MCS= Multi-channel Sonic Tool
BHTV= Borehole Televiewer
DLL= Dual Laterolog
GST= Gamma Ray Spectrometry Tool

1986, Dr. Richard Jarrard to be the logging manager of the ODP logging program. He replaced Dr. Dan Fornari, who resigned the post last year. Dr. Jarrard has extensive experience in marine geology and geophysics, in addition to having worked at ARCO Petroleum on geophysical and logging related research problems. Dr. Jarrard received his PhD from Scripps Institution of Oceanography, has worked at the University of Alaska and was most recently associated with the Lamont-Doherty Geological Observatory.

ODP DATABANK REPORT

The JOIDES/ODP Databank received the following data between October 1985 and January 1986. For more information concerning the ODP Databank, please contact Carl Brenner at the Lamont-Doherty Geological Observatory, Palisades, N.Y.

From Y. Kristofferson (Norway), via J. Kennett (URI), copies of multichannel seismic (MCS) and 3.5 kHz records, with navigation, collected during the Norwegian survey of the Maud Rise, Weddell Sea.

From J. P. Rehault, V. Pierre and M. Curie (France): Seabeam contour maps and additional French and Italian seismic lines (FC4, SE4, FC9 MC9, MC14, MC5a, MC5b, MC5, TY41, TY55, TY57, TY60), Tyrrhenian Sea area.

From J. P. Rehault (France): Reprocessed SITHERE MCS lines 1, 4, 6, 10, 12 and 16, with velocities. Also Tyrrhenian Sea area, navigated MCS processings of lines 6 and 12.

From D. Hussong (HIG): Preliminary data set (multichannel seismics, sampling and Sea Marc II) from the HIG survey of the Peru Margin area.

From A. Mascle (France): Migrated multichannel seismic line CRV128 and Seabeam bathymetric maps, in the North Barbados area. Also CEPM-IFP seismic line 128 and additional Seabeam bathymetric maps, northern Barbados area; DISCOVERY MCS line 109.

From U.S. Navy: Microfilms of underway geophysical and seismic data from USNS WILKES cruises 481, 916, 920 and 921, Indian Ocean area.

From M. Sarnthein (FRG): Cruise report and preliminary seismic profiles from R/V POLARSTERN survey, NW African paleoenvironment.

From G. Westbrook (UK): Migrated version of Durham Line 109 (DISCOVERY), with shotpoint navigation, N. Barbados area.

From R. Speed (Northwestern U.): Shotpoint navigation corresponding to Shell line C2114, N. Barbados area.

International Phase of Ocean Drilling

JOIDES COMMITTEE REPORTS

EXECUTIVE COMMITTEE REPORT
7-8 JANUARY 1986

The following are selected highlights of presentations from the 7-8 January 1986 meeting of the Executive Committee which was held on Molokai, Hawaii.

NATIONAL SCIENCE FOUNDATION REPORT

G. Gross (NSF) reported that the United Kingdom had joined the ODP and its membership is retroactive to 1 October 1985. However, as D. Heinrichs (NSF) reported, the addition of the United Kingdom to the ODP will not directly affect the current budget for FY 86 of $32.5 M.

In responding to a question on the effect that the Gramm-Ruddman budget legislation, which was recently passed in the US Congress, will have on the future of the ODP, Heinrichs stated that is unclear in the short term as to what effects will occur to ODP or at the NSF and that more information will be available after March 1986. In the meantime, NSF has begun to study the legislation for potential problems and is investigating potential options.

JOINT OCEANOGRAPHIC INSTITUTIONS REPORT

J. Baker reported that the Performance Evaluation Committee had met to examine the logging operations, the East Coast Core Repository and the ODP Databank at L-DGO in October 1985, the shipboard operations at the St. Johns, Newfoundland portcall in November 1985, the science operations at TAMU (also in November) and the administrative operations at JOI in December 1985. Baker further indicated that the report will be ready in February 1986 and presented at the EXCOM meeting in April 1986.

MEMBER COUNTRY REPORTS

Federal Republic of Germany

H. Durbaum reported that the FRG is presently working in the Weddell Sea conducting site surveys using POLARSTERN. However, the austral summer of 1986 has had bad weather and POLARSTERN has encountered many difficulties in conducting seismic surveys in the area (i.e. only 400 km of seismic lines have collected to date). The FRG is also improving the 3-D magnetometer with a field test scheduled for Leg 109, if the PCOM agrees. Work also continues on a high resolution temperature log.

The geological community of the FRG will hold a colloquium on 13-14 March 1986 at the BGR in Hannover.

France

B. Biju-Duval reported that in spite of budget cuts in oceanography at IFREMER, the ODP budget has been maintained at present levels for FY 86. This results in FFr 5,6 - 6,5 M available for ODP activities in addition to the ticket.

France is presently considering a multi-channel seismic (MCS) cruise in 1986 to the Red Sea and in 1987 to the Southwest Pacific. However, reductions in the submersible program will curtail some of the diving operations planned in 1986.The Red Sea submersible program (planned in cooperation with the FRG) is experiencing delays because of clearance problems.

Canada

M. Keen reported that the ODP is receiving substantial amounts of

publicity as displays were held at the Canadian Offshore Resources Exposition in Halifax on 1-3 October 1985 and at the Annual Meeting of the Underwater Mining Institute in Halifax on 22-23 October 1985. A very successful portcall was conducted at St. John's, Newfoundland at the end of Leg 105.

A Canadian National Committee for ODP has been established with P. Robinson (Dalhousie Univ.) as Chairman. A secretariat has been established for a period of two years at Dalhousie University.

Japan

K. Kobayashi reported that since September 1985, two panel meetings have been held in Japan. These meetings, held in Tokyo, gave panel members an opportunity to meet and discuss with members of the Japanese geoscience community. In addition, a domestic ODP symposium will be held on 11-12 March 1986 in order to discuss ODP activities.

Japan has built a high temperature (3-axis) cryogenic magnetometer for use in the East Pacific Rise program.

Japan has also developed the following schedule for site surveys in 1985/86:

Vessel	Dates
Tansei Maru (Japan Sea)	14 Sept-26 Sept 1985
Hakuho Maru (Japan Sea)	21 April-15 May 1986
Tansei Maru (Izu-Bonin Tr.-arc-backarc)	27 June- 21 July 1986
Tansei Maru (Nankai Trough)	24 July-30 July 1986
Hakuho Maru (Nankai Trough)	22 Nov.-15 Dec 1986

United States

J. Orcutt reported that USSAC has sponsored a number of workshops during 1985 and will continue to do so in 1986. In the near future, USSAC will issue Requests for Proposals (RFP) for data syntheses of the East Pacific Rise and the Indian Ocean.

During 1986, 3 projects will be jointly funded with the Marine Geology and Geophysics section of NSF. These are in the Arabian Sea, as part of the Neogene package, the Deformation Zone area in the Indian Ocean and DSDP Hole 504B in the east Pacific. Monies are also committed for funding site survey cruises to the Broken Ridge area on R/V CONRAD and in the So. Atlantic on USCG POLARDUKE.

United Kingdom

J. Bowman thanked all of those who helped get the UK into the ODP and expressed the enthusiasm of the UK geoscience community. The funding to participate in the program was provided by a sizable contribution from the private sector (which consists of 6 UK oil companies) and from 4 government departments. However, in spite of the involvement of the many contributors, the Natural Environment Research Council (NERC) will act as the main clearinghouse for handling funds.

Cruises conducted in Weddell Sea during last year have resulted in the collection of a substantial amount of multichannel seismic data. This information has been deposited with the ODP Databank. Bowman closed his report by indicating that DARWIN is scheduled to operate in the Indian Ocean during 1986.

European Science Foundation

J. Stel thanked the EXCOM for its invitation to the meeting and reported that the ESF Consortium met

in Zurich after the September 1985 EXCOM meeting. At this meeting, the Scandinavian countries as a group indicated that they had made a joint request at ministerial levels to increase their initial contribution to levels of up to 40-50% of a full subscription and the other ESF countries are expected to also increase their contributions. From this show of enthusiasm, it is very likely that 70-75% of a full ticket will be available in the near future. B. Munsch reported that the ESF has invited Australia to join the ESF Consortium on the basis of a $300-500 K or 20% contribution. It is anticipated that a full membership in the ODP may be obtained by May 1986. The ESF has established a March 1986 deadline for a final decision on ODP membership.

USSR

There was no formal report on the membership status of the USSR. However, several EXCOM members reported that informal contacts suggest a positive stance.

ROTATION OF THE JOIDES OFFICE

The EXCOM considered a position paper on the pros and cons and suggestions on the rotation scheme for the JOIDES Office. Discussion indicated that, as of 1 October 1986, the JOIDES Office would relocate from the University of Rhode Island to Oregon State University and that under the present rotation system, the Univ. of Hawaii would be next in line to host the office. Due to the distance/time problems (from the mainland US) that this location may have on JOIDES-related communications, it was suggested that some tasks presently carried out at the JOIDES Office be centralized at JOI, Inc. in Washington, D.C.

ANY OTHER BUSINESS

COSOD-2; Long Range Planning of the Ocean Drilling Program

Since the program has completed its first year of drilling, it was unanimously agreed by the EXCOM that now is the time to begin planning and designing a schedule for COSOD-2.

It was the consensus of the EXCOM that the COSOD-2 meeting should be held in early 1987. It was suggested that holding COSOD-2 in Europe would raise the visibility of the program among the Europeans (in particular, the government agencies and the various geological communities).

Third World Participation

ODP/TAMU has investigated the possibility of establishing temporary positions for Third World scientists at College Station. Research indicated that the costs per person ranged from $22-62 K, depending on the length of stay.

In closing discussion, the EXCOM Chairman urged the non-US JOIDES members to investigate funding possibilities for Third World scientists in their respective countries.

PLANNING COMMITTEE REPORT

20-24 JANUARY 1986

The following are the highlights from the January 1986 meeting of the JOIDES Planning Committee.

NATIONAL SCIENCE FOUNDATION REPORT

G. Brass (NSF) reported that there is no clear picture emerging that indicates how the the Gramm-Rudman legislation will affect the approximately $32 M budgeted for ODP operations during FY 86. NSF is unable to make any long term forecasts for the $36 M proposed for the FY 87 budget as it has not yet been sent to Congress for review.

Brass asked PCOM members to develop liaisons with continental drilling agencies both nationally (e.g. in the US relevant groups are the Deep Observation and Sampling of the Earth's Continental Crust, Inc. (DOSECC), the United States Continental Scientific Drilling Program and the Salton Sea Scientific Drilling Project (SSSDP)) and internationally in order to encourage cooperation and the sharing of technologies between the various organizations and activities.

REVIEW OF JOIDES SCIENTIFIC ADVISORY STRUCTURE

Discussion of the JOIDES structure indicated that there is some frustration with the system. The frustration is based on a general feeling that there is an apparent lack of coordination between the panels, there is an unnecessary duplication of effort among the panels, there is a feeling that the advice of the thematic panels is largely ignored in favor of recommendations from the regional panels and that some disciplines within the geologic community (especially geochemistry) are not represented in the present structure and are being overlooked. Lastly, there was a general feeling of a majority of the chairmen that panel liaisons have too many meetings to attend and this system is not an effective means of communicating information.

The consensus of PCOM was that it was premature to change the panel structure at this time although it was recognized that there have been difficulties, especially in terms of communications, between thematic and regional panels. In view of this situation a better inter-panel liaison network is required. One effective means of achieving this will be to establish a meeting of the panel chairmen, to be held during the summer (in addition to the annual meeting with PCOM). A second means is to have relevant panels hold overlapping meetings in oder to resolve conflicts on priorities. The development of drilling plans should be based on an identification, by the thematic panels, of the global thematic objectives which may be best attained in any particular region. Regional panels should take these themes as the basis for regional drilling plans, subject to a further evaluation by the thematic panels. At this time the resolution of any conflicting advice from the regional and thematic panels should occur. The PCOM will then construct a drilling plan based on this flow of advice. PCOM further agreed that although the Program is placed within a 10 yr. framework, it should be emphasized that the boundary conditions are flexible. It was the general consensus that while thematic panels will continue to receive proposals, regional panels will concentrate on detailed proposal review in the development of the regional plans.

PCOM agreed that COSOD-2 may be a good opportunity for a review and possibly re-alignment of the panel structure. Meanwhile, PCOM will consider ways to best include the views of the geochemical community into the planning process.

SHORT-TERM PLANNING

Leg 108 (NW Africa)

No problems are anticipated for Leg 108 other than those associated with obtaining the necessary operations clearances. The addition of a heat flow program has been agreed. This program will be implemented by the physical properties specialist on RESOLUTION. The co-chiefs have requested that a logging program be added to the planning in view of the possibility that additional operations time may be available. The addition time is the result of a possible rearrangment of the order of drilling because of difficulties in obtaining clearances. In addition, engineering tests on the minicore system and the sidewall logging sub will be conducted.

Leg 109 (MARK-2)

The PCOM, in recognizing that drilling into zero age crust is a major goal of ODP, recommended that the deepening of Hole 648B is the highest priority of Leg 109 and that the logging package will also be included into the program. PCOM also indicated that if no subtantial progress in drilling is achieved after 30 days, then the remainder of the time will be spent logging DSDP Hole 395A. The first priority backup for Leg 109, in case of difficulties at Hole 648B, will be the Kane Fracture Zone.

PCOM also recommended that the Wireline Logging Services Contractor investigate the development of a downhole seismic program, to be conducted at an early stage in the operation and at various stages of drilling, to determine the structure below the drillhole (including the identification of rubble zones) at Site 648B.

Leg 110 (Barbados)

The PCOM agreed that drilling the decollement zone below the accretionary wedge continues to be the prime objective of Leg 110 and endorsed the proposals for a hydrogeology program as a contingency.

ODP/TAMU indicated that there are no operations problems and that progress continues on drill-in casing development.

Leg 111

Recognizing the importance of sampling deep oceanic crust in order to expand our present knowledge of the lithosphere, the PCOM recommended that Leg 111 be primarily devoted to the deepening and logging of DSDP Hole 504B. In addition, the PCOM suggested that a maximum of 5 days be added to the program for drilling a double Advanced Piston Core (APC) and Extended Core Barrel (XCB) site in the vicinity of Hole 504B with one site to be a representative geochemical and paleontological site. A full logging program will be undertaken with the inclusion of a Vertical Seismic Profiling (VSP) experiment. The PCOM also that any decision to replace drilling at Hole 504B by a third leg devoted to Site 648B will be dependent on good results and substantial drilling progress on Leg 109.

MEDIUM RANGE PLANNING (INDIAN OCEAN 1987/88)

Taking into account the impossibility of obtaining site surveys for the Mascarene Basin/Fossil Ridges program, PCOM revised the program for Indian Ocean drilling which is given in Table 1.

In considering the availability of site surveys for the Indian Ocean program, the PCOM recommended that the Mascarene Basin/Fossil Ridges program be eliminated from planning due to the impossibility of obtaining the needed site surveys. The PCOM also noted that the acceptance of the Southwest Indian Ridge (SWIR) and the 90°E Ridge programs into the schedule may be prejudiced if site surveys are not conducted in those areas and that Red Sea drilling may be in doubt due to political problems (clearance difficulty and security). Should these legs be eliminated from the program, PCOM identified an additional Neogene Package leg, the Makran and a Somali Basin deep stratigraphic test hole as potential backups and these proposals will be the subject of further evaluation.

LONG-TERM PLANNING (PACIFIC OCEAN 1989-)

Overall Time in the Pacific Ocean

The PCOM recommended that WPAC, CEPAC, SOP and the thematic panels develop a scientific program for the Pacific Ocean under the initial time constraint of a total of three years for this entire region. It was indicated that the time in the area will be partitioned approximately equally between the western Pacific (the general area mandated to WPAC) and the remainder of the Pacific (including the Bering Sea and far Southern Pacific). However, the PCOM indicated that this time constraint and its division is tentative and subject to revision in consideration of subsequent scientific arguements from the panels.

PANEL MEMBERSHIP

Panel Rotations

It was the consensus of PCOM that the panels should propose a rotation scheme for membership (noting that non-US members are not required to adhere to the rotation) and should suggest possible replacements and additions to ensure as complete a disciplinary cover as possible. PCOM will decide on rotations and new membership at its May 1986 meeting following the input from the panels.

Panel Chairmen's Meeting

PCOM agreed to appoint D. Rea (CEPAC) as chairman of this group. It was agreed that the meeting would be held as OSU prior to the PCOM meeting in May 1986. Subjects suggested for the agenda were: global review of thematic objectives of ODP; panel-panel and panel-PCOM communications and improvements to working methods; resolution of Indian Ocean planning conflicts; identification of major objectives of Pacific Ocean drilling and the inclusion of geochemical, site survey and downhole measurements input into planning.

ANY OTHER BUSINESS

Rotation of the JOIDES Office

PCOM was informed that the JOIDES Office will rotate to Oregon State University (OSU) as of 31 September 1986 and that OSU will be succeeded, in 1988, by the Hawaii Inst. of Geophysics. With this rotation, D. Caldwell will succeed

TABLE 1

1987	JAN FEB	Weddell Sea
	MAR APR	Atlantic-SubAntarctic Transect
	MAY JUNE	Southwest Indian Ridge
	JULY AUG	Red Sea
	SEPT OCT	Neogene Package
	NOV DEC	Kerguelen 1
1988	JAN FEB	Kerguelen 2
	MAR APR	Broken Ridge/ S 90 E Ridge
	MAY JUNE	N 90 E Ridge/ Intraplate Deformation-Bengal Fan
	JULY AUG	Argo/Exmouth

The above is the drilling program scheduled for 1987/1988 as devised by the Planning Committee at the January 1986 meeting.

J. Knauss as the EXCOM chairman and N. Pisias will succeed R. Larson as the PCOM Chairman.

COSOD-2

In responding to a request by the EXCOM, given at its Jan. 1986 meeting, the PCOM prepared a draft Terms of Tentative Reference for a COSOD-2 meeting. Offers to host the meeting were made by T. Francis and by H. Biersdorf and J-P. Cadet . The location will be finalized at the May PCOM. The steering committee will consist of 12 members with one member from each of the non-US members plus a chairman. Selection of the Steering Committee and its Chairman will be made in May. The meeting will be funded by co-mingled funds with travel to be a national responsibility.

JOIDES PANEL REPORTS

The following are highlights from the Annual Reports of the JOIDES panel chairmen.

REPORT OF THE LITHOSPHERE PANEL

M. Purdy (Chairman) reported on LITHP activities for 1985.

Leg 106- MARK Drilling

The exceptionally high quality site survey work in the MARK area, the successful planning for this leg and the trouble-free emplacement of the first bare rock guidebase were all a promising start to this high priority Lithosphere leg.

EPR Drilling

The Panel agreed that the EPR drilling site should have three characteristics: a seismically defined magma chamber, contain extensive photo coverage and be an area with active hydrothermal activity. However it was the consensus of the group that the first site be located in a downflow zone in order to minimize high temperature problems.

The Panel further agrees that the 13°N area probably best meets these requirements. However, EPR drilling is questionable due to the limited number of guidebases. Before further progress can be in planning for this leg, the Panel is awaiting decisions on Leg 109 and a review of 106. It should be noted that there is strong panel support for hydrothermal drilling so that technical difficulties can be assessed early in the program.

504B

The Panel considers the deepening of 504B to be an essential part of the first two years of drilling.

Bare Rock Guidebases

LITHP found the lack of funds for more than two guidebases to be a dismaying occurrence.

Indian Ocean

Many active discussions and careful proposal reviews led to setting our first four Indian Ocean priorities as: 1. Red Sea, 2. 90E Ridge, 3. Aus-Ant. Discordance, and 4. SW Indian Ridge fracture zone. However, again it must be stated that these are LITHP's priorities only WITHIN the Indian Ocean. The Panel considers back-arc spreading center drilling in the Western Pacific to be a higher priority than all of the above projects.

Lithosphere Drilling within ODP

Planning is sufficiently well-advanced that it seems clear that LITHP's number one objective (crustal generation and magma processes) will receive only three legs worth of effort during the first four years of the drilling program. The Panel has repeatedly expressed its frustration with the situation and at its perception that ODP is not adopting the philosophies of COSOD. In addition, LITHP is very concerned that the valuable and very limited drill ship resource is being used as a globally wandering miscellaneous problem solver.

REPORT OF THE SEDIMENTS AND OCEAN HISTORY PANEL

M. Arthur (Chairman) reported that at their February meeting in Cambridge, U.K. and at the July meeting in Palisades, N.Y., SOHP continued to endorse and develop scientific ocean drilling for the initial 3 years of ODP around the following high-priority themes:

1. Neogene-Quaternary high-resolution sea level, paleoclimatic, biomagneto-chemostratigraphic records, global oceanic fluxes and land-sea interactions.

2. Cretaceous-Neogene high-latitude paleoceanography-paleoclimatology and biotic evolution.

3. Mesozoic-Cenozoic sea level changes, seismic stratigraphy, major global unconformities and global mass balances using deep stratigraphic holes. SOHP indicated that this is one of their major themes for the entire program.

INDIAN OCEAN PROGRAM

The Panel prioritized the drilling proposals as follows:

1) Southern Kerguelen Plateau-Amery Margin (high latitude paleoclimates-paleoceanography with Amery Margin highest priority, 3-5 sites recommended).

2) Oman Margin-Owen Ridge-Somali Margin-Indus Cone (with Oman-Owen Ridge highest priority, 5 sites recommended).

3) Somali Basin deep stratigraphic test (anomaly M-25, 1 site recommended; part of deep stratigraphic tests program.

4) Northern Kerguelen Plateau-Southeast Indian Ridge transect (recommended 3 sites for Paleogene-Neogene paleoclimate transect - high latitude carbonate record).

5) Exmouth Plateau-Argo Abyssal Plain (recommended 2 sites for passive margin sequence to oldest Jurassic crust).

6) Mascarene-Chagos-Laccadive (recommended 6-8 sites for latitudinal-paleodepth transect).

Red Sea: SOHP recommended that the flanks of the ridge be APC cored for hydrothermal sediments and site drilled for paleoenvironment of sapropel sequence and evaporite-normal marine sediment sequence. The Panel also recommended that the Red Sea program be deferred until JOIDES RESOLUTION is outfitted with riser/blowout preventer (BOP) equipment and high temperature tools.

WESTERN PACIFIC PROGRAM

SOHP targets/objectives are (tentatively): 1) Great Barrier Reef-Queensland Plateau
2) Japan Sea (Yamato Rise sites 1 and 3, Toyama Fan)
3) Bonin transect (site C-F)
4) Sulu Sea (inner basin)
5) China Sea

TECHNOLOGICAL DEVELOPMENTS

SOHP continues to recommend as highest priority the following technological improvements and/or acquisition and deployment of equipment already available to ODP (in their order of priority).

1) Heave compensator for the APC system.
2) A core-catcher system that would improve recovery in friable formations (such as sand).
3) Improved bits and drilling techniques that would allow better penetration and recovery in sequences with pronounced lithologic contrasts (e.g. chert-chalk sequences).
4) Improved core liners.
5) Additional improvement and routine availability of pressure core-barrel and in situ pore-water sampler to take advantage of unanticipated geochemical anomalies (e.g. gas hydrates).

Core Handling and Archiving:

1) Improve color core photography, including routine deployment of continous strip photography.
2) Digital color record acquisition for signal processing and permanent archive.

LONG RANGE PLANS-RISER DRILLING TARGETS

SOHP considered plans for riser drilling in 1992 or later and made the following recommendations:

1) Penetration, dating and characterization of major evaporite sequences.
2) Penetration and recovery of gas hydrates and other gassy sediments.
3) Penetration of continental slope structures and sequences.
4) Deeper riser drilling capability.

REPORT OF THE TECTONICS PANEL

Darrel Cowan (Chairman) submitted the report.

During 1985, the Tectonics Panel met at L-DGO in Palisades, New York in March and at the Ocean Research Institute in Tokyo, Japan in October.

At the March meeting, Cowan acted as temporary Chairman, replacing J. Leggett (U.K.). This change was formalized in April by PCOM. Most of the meeting time was devoted to review, discussion and ranking of drilling proposals in the Indian Ocean and Southern Oceans. The procedures used to evaluate the proposals were largely those established at the September 1984 meeting in London. In accordance with those procedures, TECP divided the oceans geographically and assigned a watchdog to each region. Each watchdog then systematically summarized the thematic problems in their region and how extant drilling proposals would address them. TECP then prioritized Indian and Southern Ocean targets using a voting system in which 0= lowest rating to 10= highest rating. The four top priorities were:

1. Makran accretionary prism
2. Indian Ocean intraplate deformation and fluid flow
3. SW Indian Ocean fracture zone
3.(tied) Bengal-Indus fans

At the October meeting, TECP reversed the previous March ranking by selecting the SW Indian Ridge fracture zone over Makran as the top priority for the time period of May-June 1987. Further, TECP insisted that basement be sampled on all parts (north, central and south) of the Kerguelen Plateau. TECP also recommended that during Leg 110 every effort be made to drill through the decollement at LAF-1 and then proceed upslope to drill LAF-2 and 3, if time permits.

The Panel identified prime global thematic problems that could be best examined in the Western Pacific and agreed to critically evaluate the proposals that address these problems in the future. The panel further agreed to prepare specific drilling plans at the February 1986 meeting based on the following thematic objectives:

i) The evolution of arcs and fore-arc basement
ii) The origin of back-arc basins
iii) The tectonics of collisions

REPORT OF THE ATLANTIC REGIONAL PANEL

L. Montadert (Chairman) reported that during 1985, the Atlantic Regional Panel conducted meetings in March in Austin, Texas and in Villefranche, France.

At those meetings, discussions were devoted primarily to Leg 103 Galicia sites, the Leg 107 Tyrrhenian sites, the Leg 108 W. Africa sites and Leg 110 Barbados sites. Since the planning for Leg 103 and Leg 107 did include many of the recommendations from the ARP, they will not be presented in this brief summary. The panel recommended that on Leg 108 all sites be double-cored to maximize resolution and recovery and that drill sites be occupied, as it is feasible, in order of priority rather than in geographic proximity. For Leg 110, ARP reaffirmed its belief that the first priority objective is to penetrate the decollement zone down to oceanic crust. ARP also strongly advocated a transect across the Lesser Antilles forearc to investigate the changes in physical properties, deformation rates and mechanisms during the progressive growth of an accretionary prism.

In addressing SubAntarctic drilling, the ARP recommended that drilling within this region be considered within the broader perspective of Southern Atlantic drilling targets.

REPORT OF THE CENTRAL AND EASTERN PACIFIC REGIONAL PANEL

D. Rea (Chairman) reported that during 1985 CEPAC met in March at Menlo Park, California and in September at Roche Harbor, Washington.

At the March meeting, CEPAC considered plans and proposals for 1986 drilling in the east Pacific. From this review evolved the following ranking:

1. Peru margin tectonics and paleoceanography
2. EPR 13°N (2 legs)
3. 504B with Mottl proposal as backup to 13°N program, if no bare rock drilling.

At the September meeting, CEPAC discussed plans to return to DSDP Hole 504B and recommended that the sedimentary section near 504B be double-HPC cored to recover the outstanding paleoceanographic record at that location. CEPAC also recommended that Leg 112 be devoted to the Peru margin and that high latitude drilling in the southern Pacific be deferred.

CEPAC also discussed at length the general program objectives regarding a Pacific drilling program. This discussion resulted in the creation of a listing and ranking of significant problems in the region that could be resolved by drilling. The top seven of these objectives are shown in Table 1.

REPORT OF THE INDIAN OCEAN PANEL

R. Schlich (Chairman) presented the schedule in Table 2 as a workable drilling schedule for the Indian Ocean region.

Note: Please see PCOM Report (this issue) for more information.

REPORT OF THE SOUTHERN OCEAN PANEL

J. Kennett (Chairman) reported on the major points of the meeting conducted in September 1985 at Woods Hole, Mass.

Kennett reported that site surveys to collect single channel seismic, 3.5 kHz, piston core, magnetics and gravity data for the Sub-Antarctic Leg will be conducted between July-September 1986. The SOP considered a Prydz Bay-Southern Kerguelen Leg and indicated that a Prydz Bay-East Antarctic margin program could address problems of climatic, sedimentologic and nearshore environmental histories of East Antarctica, especially during Paleogene and Mesozoic times. Further the prioritization of drill sites for the South Kerguelen program is still preliminary until site surveys are conducted. The SOP recommended that for the northern Kerguelen program three primary sites be drilled. These are KH-1, KH-3A and KH-5A. Further, due to contraints on time required to accomplish the numerous objectives of the East Antarctic margin and Kerguelen region coupled with the long transit times needed, SOP requested a crew change at Kerguelen Island.

REPORT OF THE WESTERN PACIFIC PANEL

B. Taylor (Chairman) reported that there are now more than 50 proposals for drilling in the western Pacific. The panel evaluated each of these proposals separately and then grouped them into 20 priority "legs". The results were tabulated and illustrated in Fig. 1.

CEPAC PRELIMINARY RANKING OF SOME PACIFIC DRILLING THEMES

The list and rankings (low points equals high rank) are subject to revision as the themes become more defined. We have indicted the approximate time needed for each theme and the extent of surveying still required.

	Total Points	Months	Surveys
EPR 13°N - Crustal formation at fast-spreading (115 mm/y) ridge. Hydrothermal processes (high temperature tools needed). Bare rock site. LOBO site.	11	4	OK
Juan de Fuca-Gorda sedimented ridge - sulfide mineralization, organic diagenesis, vertical tectonism, crustal alteration (high temperature tools necessary). LOBO site.	13	2	
Old West Pacific - Sedimentary record of Mesozoic oceans. Mid-plate, mid-Jurassic to mid-Cretaceous plate evolution and history, especially volcanism.	14	2	MG&G and MCS needed
Superchron plate rearrangements - M-series to Anom 32 tectonic shifts, Hess-Emperor-Chinook. Ridge jumps in Mendocino-Murray and Clarion-Clipperton regions. Ages and extents.	14	2	MG&G needed
Oregon/Washington/British Columbia margin - Queen Charlotte terrace and northward transport. Landward vs. seaward dipping thrusts. Dewatering, diagenesis, physical properties & mechanics of subduction.	15	4	OK, +MCS needed
North Pacific Pelagic Problems - Mesozoic ocean equatorial productivity record - Paleogene carbonates, Neogene onset of siliceous deposition. Boundary currents and upwelling. High latitude biostratigraphy to provide "link to the land". Piggy-back studies include ice-rafting, hydrothermal history, eolian deposition, tephrochronlogy.	16	4	MG&G needed
Aleutian convergence, past and present - Underthrusting and accretion. Arc development vs. modeled history.	16	2	OK

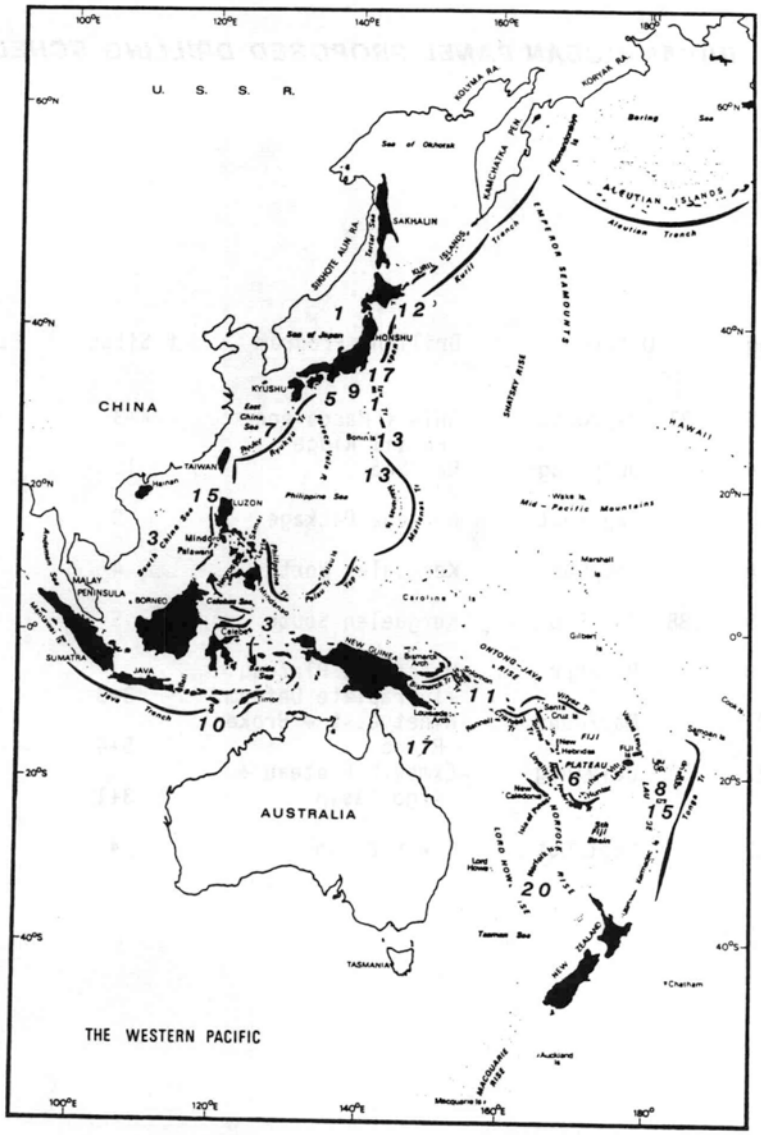
TABLE 1

INDIAN OCEAN PANEL PROPOSED DRILLING SCHEDULE

Leg	Dates	Drilling Program	# Sites	Est.Site Days
115	1987 May/June	SWIR + Mascarene Fossil Ridge	4+3	42
116	July/Aug	Red Sea	10	50
117	Sept/Oct	Neogene Package	9	53
118	Nov/Dec	Kerguelen North	4	85
119	1988 Jan/Feb	Kerguelen South	5	
120	Mar/Apr	Mascarene Plateau +Intraplate Deform.	3+5	15+42
121	May/June	Ninetyeast + Broken Ridge	5+4	25+
122	July/Aug	Exmouth Plateau + Argo Basin	3+1	53
123	Sept/Oct	Otway Basin	4	49

TABLE 2

FIGURE 1



1	BONINS (Island arc rifting, arc & forearc evolution, diapirism)
1	JAPAN SEA (Continental back arc spreading, back arc thrusting, paleoceanography)
3	BANDA/SULU (Trapped marginal basins, silled basin paleoceanography)
3	SOUTH CHINA SEA (Passive margin and marginal basin evolution)
5	NANKAI (Accretionary processes)
6	VANUATU (Ridge collision, arc rifting, arc reversal)
7	OKINAWA-RYUKYU (Continental arc rifting, forearc tectonics)
8	LAU-TONGA (Back arc spreading, arc & forearc evolution, Louisville collision)
9	ZENISU-SHIKOKU (Intraplate thrusting, back arc basin evolution)
10	SUNDA (Accretion vs nonaccretion, slump fans, lower-slope basins)
11	SOLOMONS (Plateau collision, arc reversal, intra-arc basin evolution)
12	KURIL-JAPAN TRENCH (Continental forearc evolution, arc-arc collision)
13	N. MARIANA (Island arc rifting, arc & forearc evolution, diapirism)
13	FOREARC DIAPIRS (Petrology, structure, hydrogeology: 19,26,31°N Mariana-Bonins)
15	VALU-FA (Zero-aged backarc spreading center)
15	MANILA-TAIWAN (Forearc basin evolution, accretionary processes)
17	CORAL SEA/G. B. REEF (Passive margin evolution, carbonate-epiclastic sedimentation)
17	TTT-SAGAMI TRENCH (Triple junction sedimentation, deformation & tectonics)
17	WPAC DOWNHOLE (Monitor 3-plate crustal deformation south of Tokyo)
20	LORD HOWE/NORFOLK/3 KINGS

REPORT FROM THE DOWNHOLE MEASUREMENTS PANEL

M. Salisbury (Chairman) reported that the goals of DMP are to establish a state-of-the-art borehole measurements capability within the Ocean Drilling Program by a 3-pronged approach: a) establishing contracts with the oil industry for the best available commercial logging services, this has been achieved by L-DGO in concert with Schlumberger, b) to upgrade equipment either through direct development or through subcontracts let by the Borehole Research Group at L-DGO and c) encouraging both the introduction of new equipment and the widest participation in the ODP. In many instances, this has been achieved by soliciting proposals from individual investigators for tool development and operation. Specifically, these instrumentation proposals are for the development of the Straddle Packer, the 3-Axis Magnetometer, the Magnetic Susceptibility Tool, the HPC Water Sampler, the Vertical Seismic Profiler, Oblique Seismic, Large Scale Resistivity, Borehole Geotechnical and Wireline Re-entry.

The second goal of DMP is to establish a comprehensive marine logging data base by adopting a "400 meter rule" which states that all holes over 400 m deep should be logged. Further as an aid to the scientific party on each leg, the DMP has instituted a review of the sites and objectives for that leg which leads to the development of a downhole measurements program for each site that is tailored to meet the scientific objectives.

Finally, the third goal of the DMP is to expand the role of geophysics in the ODP by sponsoring sites and legs of interest to the borehole measurements community.

REPORT OF THE INFORMATION HANDLING PANEL

D. Appleman (Chairman) reported that the IHP met in College Station, Texas in September 1985.

With regard to publications policy, the IHP restated its firm committment to a strong ODP publication program and concluded that the two-part program adopted in 1984 by the Planning Committee (PCOM) best addresses the needs of the scientific community. Further, in order to deal with the current financial shortfall, the IHP endorsed the conclusions and recommendations of the PCOM Publications Review Subcommittee and recommended that 1) post-cruise conferences proceed on schedule; 2) all necessary material for Part A volumes be ready at the post-cruise conferences; 3) as a temporary expedient basic, Initial Core Descriptions be produced for the early legs and that they be printed as inexpensively as possible; 4) as Part A volumes can be completed, they are shelved to await funding for publication and 5) Part B manuscripts be scheduled as originally planned and shelved when received to await funding for editing and printing. The IHP concluded that the publication of a Part B volume, a peer-reviewed scientific report, appears to best serve the scientific community at a cost no higher than alternate proposals and that the ODP must maintain responsibility by some means for the publication of Part B.

After examining the proposed "steady state" publications costs of $2.1 million, the IHP found them to be reasonable and in line with percentage publication costs of other large science programs. Further, IHP recommended that in order to facilitate the earliest possible publication of the Part A volumes, publica-

tions be given a very high priority when, and if, additional funding becomes available. If the anticipated improvement in funding does not occur, the panel agreed to meet on an emergency basis to evaluate further options.

In closing discussion on publications, the IHP indicated that if the results of the ODP are not published in an adequate and coherent form, the Program loses its only universally visible product.

In establishing a policy on logging data, the IHP recommended that the routine wireline logging results be published in Part A at the scale of the barrel sheets, as edited and selected by the logging operator (in consultation with the Science Operator). If this recommendation is precluded by financial or production constraints, then representative logs should be published and the presence of all logging data indicated on the core descriptions. IHP further recommended that non-routine downhole measurements should appear as individual scientific experiments in Part B.

REPORT OF THE POLLUTION PREVENTION AND SAFETY PANEL

G. Claypool (Chairman) reported that during 1985 the PPSP met in New Orleans, La. in March and in Paris, France in October.

At the March meeting the Safety Panel discussed potential safety considerations for drilling in hydrothermal areas and agreed that advice should be sought from experts (e.g. Los Alamos Laboratories) in the area of hot rock drilling. In addition, the Panel examined proposed drilling sites for Legs 104 (Norwegian Sea), 105 (Baffin Bay) and Leg 106 (MARK).

Leg 104: PPSP reviewed 7 sites, approved 3 as proposed and placed conditions on the remaining 4 sites.

Leg 105: Having approved all Baffin Bay sites at the August 1984 meeting, the Safety Panel reviewed 8 prospective Labrador Sea sites. PPSP approved 4 as they were proposed, 3 with conditions and rejected 1.

Leg 106: PPSP approved both MARK-1A and MARK-1B as they were proposed.

At the Paris meeting, PPSP reviewed proposed drilling sites for Legs 107 (Tyrrhenian Sea), 108 (NW Africa), 109 (MARK II) and 110 (Barbados).

Leg 107: PPSP reviewed 16 possible sites, approved 9 as they were proposed, approved 4 with conditions and rejected 3.

Leg 108: PPSP reviewed 8 possible sites and approved all as they were proposed.

Leg 109: PPSP approved deepening of the Leg 106 MARK I site.

Leg 110: PPSP reviewed 7 proposed sites, approved 5 as they were proposed and approved 2 with conditions. The Safety Panel also advised that special engineering methods may be required to drill the high-pressure zone encountered during DSDP Leg 78A drilling.

During 1985, the PPSP has also revised and rewritten the Safety

Manual. This manuscript has been submitted to the JOIDES Office for publication.

REPORT OF THE SITE SURVEY PANEL

J.W. Peirce (Chairman) submitted the following report of SSP activities for the year 1985.

During 1985 the Site Survey Panel (SSP) met in June in Halifax, Nova Scotia and in November in Tokyo, Japan.

In order to provide a consistent set of guidelines for the planning and assessment of site surveys, the SSP finalized and refined the Site Survey Data Standards matrix (see p. 65 of Vol. XI, Special Issue No. 4). Further amplifications to the matrix are being written, based on the Panel's experience from hands-on assessment of site surveys this year.

The site survey data for the Chile Triple Junction were formally reviewed in June 1985 and found to be clearly inadequate. As no additional site survey was possible, plans for drilling there have been dropped.

At the June meeting, the SSP agreed to take on the responsibility of formally assessing the site survey data sets for each drilling package, beginning with Leg 110. Because of the extra work load of this responsibility, the SSP requested that a second member from the US be appointed to the Panel and that the US and Japan fill their vacant alternate positions.

To date, preliminary assessments have been done for the Peru Trench, Weddell Sea and North Kerguelen. Shortcomings have been identified, and the SSP and the ODP Data Bank are working with the parties involved to get these gaps filled.

Advance input on site survey plans has been given for the Sub-Antarctic, Southwest Indian Ridge, Neogene Package and Makran areas. Detailed site-by-site assessment forms are compiled for mature drilling proposals which have completed site surveys and which have the data deposited in the Data Bank. A general summary is available for the site survey status in the Indian Ocean and a Panel member has been assigned responsibility to follow each major drilling package. A similar summary is in the initial stages of preparation for the Western Pacific.

The Data Bank budgeting situation is a matter of great concern to the SSP which does not support the reductions imposed in FY 86. The result of this action is that the Data Bank will not be able to support the ODP community to the extent demanded. However, it should be noted that first priority needs (SSP, PPSP and Science Operator) will not be affected directly.

The SSP considers the maintenance of a well-organized, centralized data base to be essential to optimize the science of ODP. It is the view of the SSP that the ODP Data Bank must be funded adequately in order for SSP and PPSP to function properly. The Panel further trusts that more support for the Data Bank will be forthcoming from the Planning Committee and the ODP community in light of the favorable report from the JOI (Klitgord) Data Bank Review Committee.

TECHNOLOGY AND ENGINEERING DEVELOPMENT COMMITTEE REPORT

J. Jarry (Chairman) reported that TEDCOM must be the bridge between the science party and the engineeering party. However, he noted that TEDCOM will not be an auditing body acting competition with the ODP engineers. With that in mind, TEDCOM will have four objectives based on the knowledge and experience of its membership. These are to ensure that engineering and science are properly coordinated, meaning that engineering priorities be coherent with science priorities. Also it means that the science priorities must be compatible with engineering and budgetary capabilities. In addition, it is the duty of TEDCOM to make sure that the ODP makes use of any relevant experience and to ensure that the technological and research and development aspects of the Program are conducted in the best way possible and are compatible with budgetary measures. Finally, as the ODP is also an international project in which funding, science and technology are to be shared, TEDCOM will encourage that the best technology from the member countries be used everytime it is available and each substantial contract for equipment purchases or developmental studies be put out to bid on a world-wide basis.

PROPOSALS RECEIVED BY THE JOIDES OFFICE BETWEEN 1 SEPTEMBER 1985 - 31 JANUARY 1986

Ref. No.	Date Rec'd.	Title	Investigator(s)	Inst.	Site Survey Avail' Data	Site Survey Future Need	Panel Reference	PCOM Reference	Remarks
				ATLANTIC OCEAN					
204/A	12/30/85	Proposed Florida escarpment drilling transect	Paull,C. Kastner,M. Neumann,A.C.	SIO U.North Carolina	Yes	Yes	SCHP 12/85 ARP 12/85 TECP 1/86		USSAC Carbonate Platforms Workshop
205/A	12/30/85	Drilling in the Bahamas: carbonate fans,escarpment erosion & roots of carbonate banks	Schlager,W. Sheridan,R.E. Ladd,J. Ravenne,C Neumann,A.C. Austin,J.	Vrije Univ Amsterdam (ESF) U.Delaware LDGO IFP Paris France U.North Carolina UT Austin	Yes	Some	SCHP 12/85 ARP 12/85 TECP 1/86		USSAC Carbonate Platforms Workshop
				INDIAN OCEAN					
121/B	12/10/84	Ocean drilling in the Exmouth & Wallaby Plateaus & Argo Abyssal Plain, E.Indian Ocean	von Rad,U. Exon, N.F. Symonds,P.A. Willcox,J.B.	BGR,FRG BMR, Australia	Yes	Yes	IOP 12/84 SCHP 12/84 TECP 12/84	Approved 6/85	Australian COGS-2 proposal Revised 12/85
196/B	12/09/85	Impact of India on Asia:90°E ridge drilling to define northward motion	Peirce,J.	Petro--canada Canada	Some	Yes	IOP 12/85 TECP 12/85 LITHP 12/85		Related to Prop. 150/B
197/B	12/16/85	Drilling on the Australian Continental Margin:Otway Basin/West Tasmanian Region	Wilcox,J.B. Branson, J.C. Exon, N.F.	BMR, Australia	Yes	Some	IOP 12/85 SOP 12/85 LITHP 12/85 SCHP 12/85 TECP 12/85		Formerly included in Prop.126/D: COGS-2 super--proposal
208/B	1/10/86	Petrological discontinuities at the ancestral triple junction in the Indian Ocean	Natland,J.H. Fisher,R.L. Mahoney,J.J.	SIO HIG	Some	Yes	LITHP 1/86 TECP 1/86 IOP 1/86		Related to Prop. 89/B
211/B	1/17/86	Deep stratigraphic tests	Arthur,M. (on behalf of SCHP)	URI	Some	Yes	SCHP 1/86 LITHP 1/86 TECP 1/86 IOP 1/86 ARP 1/86 CEPAC 1/86 WPAC 1/86		
				SOUTHERN OCEANS					
209/C	1/10/86	Eltanin Fracture Zone drilling	Dunn,D.	U.Southern Mississ--ippi	No	Yes	LITHP 1/86 SCHP 1/86 TECP 1/86 SOP 1/86		USSAC South Pacific Workshop
				WEST PACIFIC					
48/D	3/5/84	Drilling in the Sulu Sea & the South China Sea	Hinz,K. Schluter,H.U.	BGR, FRG	Yes	Some	WPAC 12/85 TECP 12/85 SCHP 12/85		Revised 12/85 Mature proposal
189/D	10/07/85	Drilling in the Tonga Ridge-Lau Ridge region	Stevenson,A.J. Scholl,D. Vallier,T.	USGS	Yes	Yes	WPAC 10/85 LITHP 10/85 SCHP 10/85 TECP 10/85		USSAC West Pacific Workshop
190/D	10/07/85	Drilling in the arc-ridge collision zone in the central New Hebrides island arc (Vanuatu)	Fisher,M.A. Greene,H.G. Collot,J-Y. Recy,J.	USGS ORSTOM France	Yes	Yes	WPAC 10/85 LITHP 10/85 SCHP 10/85 TECP 10/85		USSAC West Pacific Workshop
191/D	10/07/85	Drilling in arc-plateau collision zone & intra-arc basin,central & western Solomon Islands	Vedder,J.G. Bruns,T.R.	USGS	Yes	Yes	WPAC 10/85 LITHP 10/85 SCHP 10/85 TECP 10/85		USSAC West Pacific Workshop
194/D	11/26/85	Drilling in the South China Sea	Liu,D. Luo,Y. Chen,D.	CSCOD,Soc. of Oceanog PRC	Yes	Yes	TECP 11/85 WPAC 11/85 SCHP 11/85		Related to Props. 46/D & 147/D

198/D	12/16/85	Ulleung (Tsushima) Basin: Neogene tectonics & sediment--ation	Chough,S.K. et al Honza,E. Klein,G.deV. Cadet,J-P Hilde, T.W.C.	Seoul Nat. U.,Korea Geol.Surv. Japan U.Illinois Orleans U. France TAMU	Yes	Yes	WPAC 12/85 TECP 12/85 SOHP 12/85		Related to Prop. 51/D
206/D	12/30/85	Great Barrier Reef:slope sedimentation adjacent to a mixed reefal-carbonate/ epiclastic shelf	Davies,P.J. Symonds,P.A.	BMR, Australia	Same	Yes	SOHP 12/85 WPAC 1/86		USSAC Carbonate Platforms Workshop Formerly included in Prop.126/D: COGS-2 super-prop.
			CENTRAL & EASTERN PACIFIC						
3/E	6/27/83	Drilling flexural moats flanking the Hawaiian Islands	Watts, A.B. ten Brink,U. Detrick, R.S. Brocher,T.M.	LDGO URI USGS	Yes	Yes	CEPAC 2/84 TECP 11/85 LITHP 2/84		Revised 11/13/85
192/E	11/06/85	Drilling on the Baranoff Fan S.E.Gulf of Alaska	Stevenson,A.J. Scholl,D.W.	USGS	Yes	Yes	CEPAC 11/85 SOHP 11/85 TECP 11/85		USSAC NORPAC Workshop
195/E	12/05/85	Palaeoenvironment & palaeo--climate in the Bering Sea	Sancetta, C.	LDGO	Same	Yes	SOHP 12/85 CEPAC 12/85		USSAC NORPAC Workshop
199/E	12/30/85	Pelagic sediments in the sub-Arctic gyre region of the north Pacific	Janecek,T.R. Morley,J.J. Sancetta,C.	LDGO	Same	Yes	SOHP 12/85 CEPAC 12/85		USSAC NORPAC Workshop
202/E	12/30/85	Geological evolution of N. Marshall Islands:drilling carbonate banks with related palaeoceanographic,tectonics & lithospheric objectives	Schlanger,S.O.	North-western U	Yes	Yes	SOHP 12/85 CEPAC 12/85 LITHP 1/86 TECP 1/86		USSAC Carbonate Platforms Workshop
203/E	12/30/85	Drilling guyots in the central Pacific	Winterer,E.L. Natland,J. Sager,W.	SIO TAMU	Same	Yes	SOHP 12/85 CEPAC 12/85 LITHP 1/86 TECP 1/86		USSAC Carbonate Platforms Workshop
207/E	1/3/86	Tectonic evolution of the Bering Sea Basin & Aleutian Ridge	Rubenstone,J.	LDGO	Same	Yes	TECP 1/86 LITHP 1/86 CEPAC 1/86		USSAC NORPAC Workshop
210/E	1/13/86	Drilling on the Yakutat Continental Margin, N.E.Gulf of Alaska	Lagoe,M.B. Armentrout,J.	UT Austin Mobil	Yes	Same	TECP 1/86 SOHP 1/86 CEPAC 1/86		USSAC NORPAC Workshop
212/E	1/27/86	Drilling off northern & central California	Greene,H.G.	USGS	Yes	Yes	TECP 1/86 SOHP 1/86 CEPAC 1/86		
213/E	1/27/86	Processes controlling accret-ion in the central Aleutian Subduction Complex	McCarthy,J. Scholl,D.W.	USGS	Yes	No	TECP 1/86 CEPAC 1/86		USSAC NORPAC Workshop
			GENERAL & INSTRUMENTAL						
143/F	04/15/85	In situ magnetic susceptibility measurements with a well log probe	Krammer,K. Pohl,J.	Inst. fur Allgemeine u.Angewan-te,Munich, FRG	N/A	N/A	ARP 4/85 LITHP 4/85 DMP 4/85		Revised 12/30/85 Related to Props. 200/F and 201/F.
193/F	11/06/85	Cooperative study of upper ocean particulate fluxes in the Weddell Sea	Biggs,D.C.	TAMU	N/A	N/A	SOP 11/85 SOHP 11/85		Proposal to NSF
200/F	12/30/85	Borehole magnetometer logging on Leg 109 (MARK)	Bosum,W.	BGR, FRG	N/A	N/A	DMP 12/85 ARP 12/85 LITHP 12/85		Related to Props. 143/F & 201/F
201/F	12/30/85	High precision borehole temperature measurements on Leg 109 (MARK)	Kopietz,J.	BGR, FRG	N/A	N/A	DMP 12/85 ARP 12/85 LITHP 12/85		Related to Props. 143/F & 200/F

NOTE: For a complete proposals listing, please contact the JOIDES Office.

ANALYSIS OF PROPOSALS RECEIVED BY THE JOIDES OFFICE (as of 31 January 1986)

Total number of proposals received		213	
a. Atlantic Ocean		38	proposals
comprising:	General	24	
	Mediterranean Sea	8	
	Caribbean Sea	5	
	Norwegian Sea	1	
from:	U.S./JOIDES institutions	12	
	U.S./non-JOIDES institutions	3	
	France	11	
	U.K.	4	
	FRG	3	
	Canada	2	
	(ESF nations)	3	
b. Indian Ocean		57	proposals
comprising:	General	53	
	Red Sea	4	
from:	U.S./JOIDES institutions	27	
	U.S./non-JOIDES institutions	14	
	France	9	
	U.K.	2	
	Canada	1	
	FRG	1	
	(ESF nations)	2	
	(Australia)	1	
c. Southern Oceans		12	proposals
from:	U.S./JOIDES institutions	6	
	U.S./non-JOIDES institutions	1	
	France	2	
	FRG	1	
	(Australia)	1	
	(New Zealand)	1	
d. West Pacific Ocean		59	proposals
from:	U.S./JOIDES institutions	6	
	U.S./non-JOIDES institutions	9	
	Japan	23	
	France	9	
	FRG	2	
	U.K.	1	

(Australia)	5
(Peoples Republic of China)	2
(New Zealand)	1
(Korea)	1

e. Central and Eastern Pacific Ocean — 24 proposals

from: U.S./JOIDES institutions	14
U.S./non-JOIDES institutions	6
France	2
Canada	1
Japan	1

f. General/Instrumental — 19 proposals

from: U.S./JOIDES institutions	7
U.S./non-JOIDES institutions	1
Japan	4
FRG	3
Canada	1
France	1
U.K.	1
(ESF nations)	1

Total (by country) — 209

U.S./JOIDES institutions	72	106
U.S./non-JOIDES institutions	34	
France		34
Japan		28
FRG		10
U.K.		8
Canada		5
Non-JOIDES nations (Australia)		7
(ESF nations)		6
(New Zealand)		2
(PRC)		2
(Korea)		1

In addition, 65 ideas or suggestions for drilling have been received. These range from brief letters of intent to immature proposals. Several of the items listed have now been re-submitted as full proposals. There are also several proposals for workshops.

DEEP SEA DRILLING PROJECT

1. SAMPLE AND CORE REPOSITORY REPORT

The twelve-month post-cruise sampling moratorium is completed for Deep Sea Drilling Project (DSDP) Legs 94, 95, and 96. Samples from all DSDP Legs (1-96) are now available to investigators for studies which will result in published papers.

Cores collected from the Atlantic and Antarctic Oceans and the Mediterranean and Black Seas (DSDP Legs 1-4, 10-15, 28, 29, 35-53, 71-82, and 93-96) are housed at the East Coast Repository at the Lamont-Doherty Geological Observatory. Cores collected from the Pacific and Indian Oceans and the Red Sea (DSDP Legs 5-9, 16-27, 30-34, 54-70, and 83-92) are housed at the West Coast Repository at the University of California, San Diego.

Interstitial water samples, gas samples, as well as frozen whole round samples (archived specifically for organic geochemical analyses) from all DSDP Legs are stored at the West Coast Repository.

2. INFORMATION HANDLING GROUP REPORT

The Information Handling Group of the Deep Sea Drilling Project is responsible for all scientific data collected on board GLOMAR CHALLENGER during her 96 cruises and produced in the Deep Sea Drilling Shore laboratories. It is the mission of the group to protect and preserve this data, to provide for distribution of the data throughout the scientific community and to encourage the use of the data through technical support to scientists.

The group comprises members with a broad variety of geological and data processing background. Senior members of the group joined Deep Sea Drilling shortly after the beginning of drilling. This maturity of staff helps the group to provide data services for the wide variety of data found in the Deep Sea Drilling Project databases, and to provide valuable assistance to researchers in choosing the best data for their research objectives.

DATA SERVICES

The responsibility for data services is currently shared by DSDP and the National Geophysical Data Center (NGDC) in Boulder, Colorado. During the phaseout of DSDP all data service responsibility will gradually shift to NGDC. Several major databases have already been transferred to NGDC. Researchers are encouraged to make NGDC their primary contact for DSDP data, since NGDC may be able to provide correlative data from other sources. NGDC will forward any requests requiring special treatment to DSDP for prompt attention. DSDP is concentrating most of its available resources on completing all databases prior to phase out and will only process data requests requiring special treatment and those requests relating to Initial Report preparation.

All prime data collected as part of Deep Sea Drilling operations and some special files compiled by the Information Handling Group are available for distribution to researchers. Table DSDP-1 summarizes and categorizes the types of data available. The data files listed under Special Files represent compilations and ancillary data which may be of particular assistance to researchers.

Data files can be provided in their entirety or the researcher may request subsets of the data based on research criteria. Databases can be searched on most data items, using simple or complex search expressions. Using linked searches all databases can be searched on common drill site summary data and paleontological age unit assignments. Records selected from one database can be correlated with records from others. DSDP

search software also contains internal tables which assign all sites to appropriate geographical (ocean, sea) locations.

The preferred medium for providing the results of data requests is magnetic tape. Printed listings can also be provided for small volume data requests. Modest sized data files may also be available on floppy disks. On experimental basis DSDP can also provide direct transfer of data via the UNIX UUCP Network and remote log-in via guest accounts on our computer.

The DSDP Topography of the Oceans map with sites through Leg 96 is now available from the Information Handling Group. Also paleontologic data from Initial Reports Volumes 1-71 are now available for computer searches. To request a map contact Barbara J. Long and for information on computer searches contact Lillian Musich. Both are located in the Information Handling Group at A-031, DSDP, Scripps Institution of Oceanography, La Jolla, Calif. 92093, Telephone: 619-452-4638 or 452-3526.

DATA TRANSFER TO NGDC

As DSDP databases are completed they are being transferred to the National Geophysical Data Center in Boulder, Colorado. Transferred databases are marked with an asterisk in Table DSDP-1. All DSDP data files will be transferred to NGDC prior to the end of DSDP data service operations in early 1987. We will periodically report on the progress of database transfers in this journal. Investigators may also request personal copies of Table DSDP-1 from DSDP. Requests for data services for transferred databases will, in general, be referred to NGDC. DSDP will continue to provide service for investigators preparing DSDP publication contributions and for requests NGDC cannot service.

DATA REQUEST PROCEDURE

Data requests can be submitted in writing or by telephone. When writing please include a brief description of your research project so that we can best determine which data sets would be most helpful. When requesting data on magnetic tape please be sure to include your preferred tape specifications. Tapes can be provided at 800 or 1600 bpi, odd parity, EBCDIC or ASCII character set, labelled or unlabeled, single or multiple files per reel. Please state any block (physical record) size limitations required by your host system.

Please address your requests for information and data to:

Data Manager
Deep Sea Drilling Project (A-031)
Scripps Institution of
Oceanography
La Jolla, CA 92093
(619) 452-3526 and FTS 895-5496

-Mail via UUCP use:
@ihnp4,akgua,decvax,dcdwest,
ucbvax(!sdcsvax!sdcc6!peterw

or directly to NGDC:

Marine Geology and Geophysics
Division
National Geophysical Data Center
NOAA E/GC3
325 Broadway
Boulder, CO 80803
(303) 497-6338 or
FTS 320-6338 Data Orders
(303) 497-6339 or
FTS 320-6339 Technical Info.

TABLE DSDP-1

AVAILABLE DSDP DATA

Data file: legs available	Data source	Description	Comments
Part 1. Lithologic and stratigraphic data		* - indicates that the database is complete and transferred to NGDC.	
Paleontology: 1-73	*Initial Reports*	Data for 26 fossil groups. Code names, abundance and preservation data for all Tertiary fossils found thus far in DSDP material. The fossil dictionary comprises more than 10,000 fossil names and codes.	Does not include Mesozoic fossils.
Smear Slide: 1-96	Shipboard data	Information about the nature and abundance of sediment components.	No data for Leg 83 (hard rock cores only).
Thin Sections: 6-83	Shipboard Data *Initial Reports*	Petrographic descriptions of igneous and metamorphic rocks. Includes information on mineralogy, texture, alteration, vesicles, etc.	Legs 31-83 are keypunched and awaiting final checks. Available by Sept. 1985. No data for Legs 8-12, 15, 19-21, 23-24, 27, 36, 40-41, 42B, 44, 47-48, 50, 56-57, 71-72, 75-76, 78, 80, 95, 96.
Visual Core Descriptions: 1-96	Shipboard data	Created from shipboard descriptions of the core sections. Information about core color, sedimentary structures, disturbance, etc.	
Visual Core Descriptions - igneous rocks: 37-94	Shipboard data	Igneous and metamorphic rock lithology, texture, structure, mineralogy, alteration, etc.	No data for Legs 40, 42B, 44, 47-48, 50, 56-57, 95, 96.
SCREEN: 1-67, 84-92	Processed data	Computer generated lithologic classifications. Basic composition data, average density, and age of layer.	
Part 2. Physical properties and quantitative analytic core data			
Carbon-carbonate 1-96	Shore Laboratory Shipboard, carbonate bomb data	Percent by weight of the total carbon, organic carbon and carbon carbonate content of a sample. Bomb data has carbonate only.	No data for Legs 46, 83, 88, 91, 92.
Grain Size 1-76	Shore laboratory	Sand-silt-clay content of sample.	No data collected for Leg 16, 64 and 65.
GRAPE (gamma ray attenuation porosity evaluator): 1-96	Shipboard data	Continuous core density measurements.	No data for Leg 46.
Hard-rock major element analyses: 13-82	Shore-based and shipboard analyses	Major-element chemical analyses of igneous, metamorphic and some sedimentary rocks composed of volcanic material.	No data for Legs 20, 21, 31, 40, 42B, 44, 47, 48, 50, 56, 57, 71.

Part 2. Physical properties and quantitative analytic core data. (Cont.)

Hard-rock minor element analyses: 13-82	Shore-based and shipboard analyses	Minor-element chemical analyses of igneous, metamorphic and some sedimentary rocks composed of volcanic material.	No data for Legs 20, 21, 27, 35, 40, 42B, 44, 47, 48, 50, 56, 57, 66, 67, 71.
Hard-rock paleomagnetics: 14-77	Shore-based and shipboard	Paleomagnetic and rock magnetic measurements of igneous and metamorphic rocks and a few sedimentary rocks composed of volcanic material.	No data for Legs 1-13, 17, 18, 20-22, 24, 30, 31, 35, 36, 39, 40, 47, 48, 50, 56, 57, 67, 68, 74.
Long-core spinner magnetometer sediment paleomagnetics: 68, 70-72, 75	Shipboard analyses	Paleomagnetic measurements: declination and intensity of magnetization. Data from hydraulic piston cores only.	Should be used with reservation since the cores were later discovered to be rust-contaminated and disturbed. Quality of the data for each core clarified by documentation.
Discrete sediment sample magnetics: 1-96	Shipboard laboratory	Paleomagnetic measurements: declination, inclination, and intensity of magnetization. NRM measurements and AFD measurements when available.	Rotary cores: 64-96 encoded. HPC cores: 71-96.
Alternating field demagnetization: 4-96	Shipboard laboratory	Paleomagnetic measurements of sediments on which alternating field demagnetization is carried out.	Rotary cores: 51-96 encoded. HPC cores: 71-96.
Sonic velocity: 3-95	Shipboard analyses	Hamilton frame and 'ear muff' methods.	
Vane Shear: 61-94	Shipboard data	Sediment shear strength measurements using Wykeham Farrance 2350 and Torvane instruments.	No data for Legs 62, 65-67, 70, 77, 79-84, 88, 89, 91-93. Additional unprocessed data may exist prior to Leg 61.
Analytic water content, porosity, and density: 1-96	Shipboard laboratory	Measurements by syringe method from known volumes of sediment.	No data for Leg 41.
Well Logs: 6-96	Shipboard data	Analog charts and magnetic tapes produced by Gearhart-Owen and Schlumberger.	*Schlumberger LIS tapes: 48, 50, 51, 57, 80-84, 87, 89, 95, 96. Gearhart-Owen tapes: 60, 61, 63-65, 67, 68, 70, 71, 74-76, 78. Analog data only: 6, 8, 46, 66, 69.
X-ray mineralogy: 1-37	Shore laboratory	X-ray diffraction	Data for Legs after 37 not available in digital form.

Part 3. Underway geophysics

*Bathymetry: 7-96	Shipboard data	Analog record of water-depth profile.	Available as digital data and 35mm continuous microfilm. No data for Legs 10-12, 57-60.
*Magnetics: 7-96	Shipboard data	Analog record produced on the Varian magnetometer in gammas. Digitized at 5-min. intervals on an OSCAR X-Y digitizer.	No data for Legs 10, 11.
*Navigation: 3-96	Shipboard data	Satellite fixes and course and speed changes that have been run through a navigation smoothing program, edited on the basis of reasonable ship and drift velocities and later merged with the depth and magnetic data.	
*Seismic: 1-96	Shipboard data	Sub-bottom profiles recorded on Edo Western Graphic Model 550. Digital data for Legs 89-96 in SEG-Y tape format.	Both Bolt and Kronllite filters available on board. Fast and slow sweeps available on microfilm and photographs.

Part 4. Special reference files

*Site Summary: 1-96	Initial Core Descriptions	Information on general hole characteristics (i.e., location, water depth, sediment nature, basement nature, etc.).	
DSDP Guide to Core Material: 1-76	*Initial Reports* Prime data files	Summary data for each core: depth of core, general paleontology, sediment type and structures, carbonate, grain size, x-ray, etc.	
AGEPROFILE: 1-96	*Initial Reports* Hole summaries	Definition of age layers downhole.	
COREDEPTH: 1-96	Shipboard summaries	Depth of each core. Allows determination of precise depth (in m) of a particular sample.	

Part 5. Aids to research

DATAWINDOW	An on-line search and retrieval program to access many DSDP files; also used for data base maintenance. An account can be arranged at the University of California computer center to allow remote access to data files compatible with DATAWINDOW.
MUDPAK	A plotting program; handles multiple parameter data (e.g., plots of well logs, plots of physical properties).
DASI	A file of DSDP-affiliated scientists and institutions. Can be cross-referenced and is searchable.
KEYWORD INDEX	A computer searchable bibliography of DSDP related papers and studies in progress.
SAMPLE RECORDS	Inventory of all shipboard samples taken.
DSDP Site Map	DSDP site positions on a world map of ocean topography.

JOIDES/ODP BULLETIN BOARD

1986 MEETINGS SCHEDULE

Date	Place	Committee/Panel
6-7 January	SIO	SOHP
7-8 January	Molokai, Hawaii	EXCOM
14-16 January	College Station	DMP
15-16 January	College Station	LITHP
20-24 January	SIO	PCOM (w/Panel Chairmen)
17-20 February	Marseilles	TEDCOM
19-21 February	Miami	TECP
24-26 February	Miami	WPAC
24-25 February	SIO	CEPAC
3-4 April	OSU	Panel Chairmen
19-23 April	Barbados	ARP
17-18 April*	Boulder, Colorado	SOHP
22-24 April	Vancouver	SSP
29 April - 1 May	Annapolis, Maryland	EXCOM (& ODP Council)
12-14 May	Bremerhaven	SOP
28-30 May	L-DGO	PCOM
24-26 June*	Denver	PPSP
June/July*	Vancouver	CEPAC
4-8 July*	Strasbourg	IOP
Mid-August*	Cornerbrook, Newfoundland	PCOM
Mid-August*	Singapore	WPAC
Mid-October*	Vancouver	EXCOM

*Meeting dates are tentative.

REQUEST FOR PROPOSALS

The JOIDES Planning Committee is now proceeding with plans for drilling in the Indian Ocean for a period of approximately 18 months following the Weddell Sea leg (Leg 113). Drilling will commence in the Indian Ocean in early Spring 1987.

Preliminary planning for operations in the Pacific Ocean (Western, Central and Eastern regions) envisages an approximate three year drilling program commencing during 1988. The program will be developed on the basis of roughly equal time being given to the Western Pacific area and to the remainder of the ocean basin. Preliminary planning will be undertaken at the next meeting of the Planning Committee in May 1986. Proposals for drilling in the Pacific Ocean should be submitted as soon as possible to the JOIDES Office, Graduate School of Oceanography, University of Rhode Island, Narragansett, RI, 02882-1197.

Proponents are reminded that six copies of their proposals should be submitted and that they should follow the Guidelines for Proposal Submission as published in the JOIDES Journal Special Issue No. 4. These Guidelines are also obtainable directly from the JOIDES Office.

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NEW PANEL CHAIRMEN

At the January 1986 meeting of the JOIDES Planning Committee, the following people were recommended and have accepted the post of Panel Chairman to these panels:

-LITHOSPHERE PANEL-

Dr. Robert S. Detrick
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University of Rhode Island
Narragansett, Rhode Island 02882
(401) 792-6926 or 6642

-SEDIMENT AND OCEAN HISTORY PANEL-

Dr. Larry Mayer
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(902) 424-2503

ODP/TAMU JOIDES PANEL LIAISONS

The following ODP/TAMU staff scientists have been assigned to liaise with JOIDES panels for planning purposes:

LITHOSPHERE PANEL- Andrew Adamson

SEDIMENTS & OCEAN HISTORY PANEL- Amanda Palmer

TECTONICS PANEL- Christian Auroux

DOWNHOLE MEASUREMENTS PANEL- Suzanne O'Connell

INFORMATION HANDLING PANEL - Russ Merrill

POLLUTION PREVENTION AND SAFETY PANEL- Lou Garrison

SITE SURVEY PANEL- Robert Kidd

ATLANTIC REGIONAL PANEL- Jack Baldauf

CENTRAL & EASTERN PACIFIC REGIONAL PANEL- Elliot Taylor

INDIAN OCEAN PANEL- Brad Clement

SOUTHERN OCEANS REGIONAL PANEL- Lou Garrison

WESTERN PACIFIC REGIONAL PANEL- Audrey Meyer

TECHNOLOGY AND ENGINEERING DEVELOPMENT COMM.- Barry Harding

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MISSING THIN SECTIONS

Many thin sections that were loaned to investigators from DSDP Repositories are still missing from the collection. These thin sections are a unique representation of the material on which the descriptions of each core are based and are a part of the reference collection maintained at each Repository for visiting scientists and for future studies. Their absence diminishes the usefulness of the collection to the entire scientific community. All investigators who have borrowed thin sections are urged to return them as soon as possible to the repository where the corresponding cores are stored. Questions should be referred to:

The Curator
Ocean Drilling Program
P.O. Drawer GK
College Station, Texas 77841
(409) 845-6620

MEMBERSHIP ANNOUNCEMENT

On January 13, 1986, the United Kingdom signed a Memorandum of Understanding (MOU) with the National Science Foundation for full membership in the Ocean Drilling Program.

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CRUISE PUBLICITY

The Public Information Office at ODP/TAMU will send cards to all participating scientists on each upcoming leg. The cards request names and addresses of university and local media as well as home-town newspapers, alumni and organization magazines, and departmental newsletters. The news release written for each leg is then tailored to incorporate the name of each scientist. This custon-made news release, along with a cover letter and brochure, will be sent to all the addresses supplied by the participating scientists.

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PUBLICATIONS

The ODP brochure is now available in Spanish. With this new addition, the general information publications, including a booklet with descriptions and floor plans of the laboratories, identification and explanations of the scientific equipment onboard JOIDES RESOLUTION, will now be available in English, French, Spanish and German. All are available upon request from K. Riedel at ODP/TAMU, College Station, TX 77840.

Request for Notices

The editorial staff of the JOIDES Journal encourages members of the the scientific community to submit announcements, notices and other news items for publication in the JOIDES/ODP Bulletin Board section of the JOIDES Journal.

Interested parties should send items for publication to: JOIDES/ODP Bulletin Board, JOIDES Office, University of Rhode Island, Narragansett, R.I., 02882

LEG 100 PRELIMINARY REPORT

A special issue in the ODP Preliminary Report Series is presently being assembled for the shakedown cruise Leg 100 in the Gulf of Mexico and Florida Straits. This will be an extended version to include the shipboard hole summary, core descriptions and core photography data on the HPC/XCB-cored Florida Slope Site 625. Since no Proceedings volume will be published for the cruise, the above report will allow interested investigators access to the cores recovered.

LEG 101 DATABASES

ODP databases for Leg 101 will be available to the public in March, 1986. Anyone who wishes to make a request can do so by calling or writing the ODP Data Base Group. Please contact Kathe Lighty at (409) 845-2673 at the Ocean Drilling Program, 500 University Drive West, College Station, Texas 77840.

TELEMAIL SUBSCRIBERS

Telemail/ OMNET has announced that subscribers to the OCEAN.NET now have the facility to receive and send TELEX messages. For further details, please contact OMNET, 70 Tonawanda Street, Boston, Massachusetts 02124.

The ODP Data Bank has produced a catalogue of IPOD Site Surveys for the period 1975-1983. Copies may be obtained from the ODP Data Bank, Lamont-Doherty Geological Observatory, Palisades, NY 10964.

Notice: Some copies of Vol. XI, Special Issue No. 4 of the JOIDES Journal contain pagination errors. To receive a corrected copy of this issue please contact the JOIDES Office.

Editor's note: This and subsequent issues of the JOIDES Journal will no longer publish the ODP Sample Distribution Policy or the Guidelines for the Submission of Proposals. To request copies of the Sample Distribution Policy, please contact C. Mato at ODP/TAMU. To obtain information on proposal submission, please refer to JOIDES Journal Special Issue No. 4: Guide to the Ocean Drilling Program (Distributed October 1985).

OFFICIAL ODP PANEL ABBREVIATIONS

EXCOM	Executive Committee
PCOM	Planning Committee
TEDCOM	Technology and Engineering Development Committee

Thematic Panels

LITHP	Ocean Lithosphere Panel
SOHP	Sediments and Ocean History Panel
TECP	Tectonics Panel

Regional Panels

ARP	Atlantic Regional Panel
CEPAC	Central and Eastern Pacific Regional Panel
IOP	Indian Ocean Regional Panel
SOP	Southern Oceans Regional Panel
WPAC	Western Pacific Regional Panel

Service Panels

DMP	Downhole Measurements Panel
IHP	Information Handling Panel
PPSP	Pollution Prevention and Safety Panel
SSP	Site Survey Panel

Working Group

RS-WG	Red Sea Working Group

JOIDES Office

BIBLIOGRAPHY OF THE OCEAN DRILLING PROGRAM

The following publications are available from the ODP Subcontractors. Information from Texas A&M University can be obtained from ODP Headquarters, TAMU, College Station, Texas. Information from the Lamont-Doherty Geological Observatory can be obtained from R. Anderson or R. Jarrard at the Borehole Research Group, L-DGO, Palisades, N.Y.

A) TEXAS A&M UNIVERSITY

1. Technical Note #1 (December 1984)
Preliminary time estimates for coring operations.

2. Technical Note #2 (June 1985)
Operational and laboratory capabilities of JOIDES RESOLUTION.

3. Technical Note #3 (September 1985)
Shipboard Scientist Handbook

4. Scientific Prospectus

No. 1 (January 1985)	Leg 101
No. 2 (February 1985)	Leg 102
No. 3 (March 1985)	Leg 103
No. 4 (April 1985)	Leg 104
No. 5 (June 1985)	Leg 105
No. 6 (September 1985)	Leg 106
No. 7 (October 1985)	Leg 107
No. 8 (December 1985)	Leg 108

5. Preliminary Reports

No. 1 (April 1985)	Leg 101
No. 2 (June 1985)	Leg 102
No. 3 (July 1985)	Leg 103
No. 4 (September 1985)	Leg 104
No. 5 (December 1985)	Leg 105

6. Other Items Available:

- Onboard JOIDES RESOLUTION
- ODP Sample Distribution Policy (1 December 1984)

B) LAMONT-DOHERTY GEOLOGICAL OBSERVATORY

Wireline Logging Manual (1st Edition, March 1985)

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