

Ninth EPSP Meeting – June 16-18, 2008
BGR Offices
Hannover, Germany

Meeting called to order - The ninth EPSP meeting was called to order by the chair at 8:30, on June 16, 2008 at the BGR office building, Hannover, Germany. The panel was welcomed by Hans-Joachim Kümpel, President of the BGR. Dieter Strack and Jochen Erbacher also welcomed the panel and guests and presented a brief summary of meeting logistics.

Self introduction - Self introductions were made by all.

EPSP members - Bob Bruce, Barry Katz (Chair), Tadashi Maruyama, Sumito Morita, Sadao Nagakubo, Don Potts, Jerome Schubert, Craig Shipp, Dieter Strack, Manabu Tanahashi, Catalin Teodoriu, Toshiaki Watanabe, and Bill Winters

Alternates present - Jochen Erbacher, Ziqiu Xue and Toshiyuki Yokota

EPSP members absent - Michael Enachescu, Masami Hato, Philippe Lapointe, Toshi Matsuoka and Bramley Murton

Guests - Christian Berndt, Warner Brückmann, Gilbert Camoin, David Castillo, George Claypool, Neil DeSilva, Christoph Gaedicke, Colin Graham, Christian Hensen, Kazuhiro Higuchi, Chikara Hiramatsu, Martin Hovland, Thomas Janecek, Hiroshi Kawamura, Shin'ichi Kuramoto, Mitch Malone, Greg Moore, Jim Mori, Yasuyuki Nakamura, Ryuji Tada, Ken Takai, and Harold Tobin

Agenda review - The chair noted that the panel will add a discussion of a new vice chair to the agenda. No additional modifications to the agenda were brought forward.

Approval of prior meeting minutes - Minutes were approved as presented.

Review of special “NanTroSEIZE” EPSP meetings - Manabu Tanahashi presented a summary of the two special EPSP meetings held in Japan with the Japanese EPSP membership and CDEX. The objectives of these meetings were to review the riser drilling plans for the two riser sites NT2-03B and NT2-03C so that a recommendation can be made for drilling to the requested depths of 3500. CDEX provided the requested information on the anticipated pore pressure and fracture gradient profiles, as well as the casing plan. CDEX noted that there still remained a need to improve the velocity model used in the estimation of pore pressure. It was reported that there are no close-by offset wells and that a new velocity model will be obtained from the available 3D seismic. CDEX also reported that the casing design is sufficiently flexible that it should be able to

adapt to different pore pressure profiles (i.e., a contingency plan was included in the proposed well design). At the conclusion of the meetings the Japanese panel membership recommended the approval of the drilling of the two riser sites to the requested depths. Final action by the full panel was deferred until this meeting.

Review of SASEC and SPC activities – Jim Mori presented highlights of SASEC and SPC meetings since the last meeting of EPSP. It was noted that none of the Mission proposals were accepted and that there will be no additional requests for Mission proposals throughout the remainder of this phase of IODP. The implementation planned did not receive strong endorsement by the community. It will be published without the stated four focus areas. The planning process for program renewal beyond 2013 has begun. A conference to engage the drilling community will be held September 2009 in Bremen, Germany. The approved drilling schedule was presented. It was noted that this will be modified as a result of timing of ship availability. It was also reported that there is a drive toward bringing in engineering reviews earlier into the review process. Although not mentioned specifically EPSP could be asked to become involved earlier in the process. The ranking and tier designation of the proposals with SPC was discussed. The tier 1 proposals are considered regional anchors for operations. Other administrative actions were noted including the creation of the Asian Monsoon DPG and changes to panel membership.

Review of USIO activities – Mitch Malone presented a status report on the refitting of the JOIDES Resolution. It was noted that the steel work has been largely completed and that work continues on outfitting and wiring. Analytical systems have been developed at TAMU. Testing and integration is scheduled. The ship is scheduled for delivery on August 15, 2008. Plans are in-place to begin the Canterbury expedition in November 12, 2008. Sufficient contingencies have been built into the program that this start date should be met even if there are some delays in the shipyard. Following Canterbury, plans are for drilling Wilkes Land and two Equatorial Pacific legs.

Review of ESO activities – Colin Graham presented a status report for MSP operations. He reported that the New Jersey margin drilling will be delayed until June 2009 as a result problems associated with the unavailability of the drilling contractor's staff in 2008 due to other commitments so ESO could not proceed with the contract. A request for tenders for drilling in 2009 has been issued. obtaining a drilling platform with crew within the required weather-window. It was also noted that progress is being made on preparations for Great Barrier Reef drilling. A few remaining concerns with the Great Barrier Reef drilling were noted, including the permitted drilling window and issues associated with liability.

Review of CDEX activities - Shin'ichi Kuramoto presented an overview of CDEX activities. He reported that the Chikyu departed September 21, 2007 for its first expedition as part of IODP. Stage I activities of NanTroSEIZE, which included Expeditions 314, 315, and 316, lasted 138 days and included the drilling of 33

holes, including LWD/MWD, coring, and the drilling of pilot holes. It was noted that among the Chikyu success were the deepest LWD drilling (1401.5 or NT3-01) and the first coring of the splay fault. The character of the borehole (breakouts) and cores were seen as providing useful information on the stress regime of the Nankai Trough. It was also reported that three of the azimuth thrusters were damaged. Repairs to the thrusters are expected to be completed by the middle of January, 2009. There is an anticipated re-start date for IODP drilling by the Chikyu of March 2009. Kuramoto also reported the movement of cores to the Kochi Core Center.

Review of key post June 2007 EPSP actions - Barry Katz presented a brief summary of highlights and key actions taken and presented at the March 2008 SPC meeting. These included: (1) the approval of an alternate site NVA-1 for the Bering Sea; and (2) the approval of NanTroSEIZE requests for NT2-01E to 900 mbsf, a relocated NT2-01G to 700 mbsf (NT2-01F was not approved); NT1-03D to 600 mbsf; the deepening of C0008A to 400 mbsf; two alternate sites C0008B and C0008C to 200 mbsf; and approved NT2-01H to 550 mbsf and NT2-01I to 400 mbsf. It was also noted that EPSP would like to see additional alternate or contingency sites to prevent the need for out of cycle reviews. Furthermore, it was noted that many out of cycle requests for review and approval are being forwarded without a full package. This has delayed actions as a result of the specific data request to the co-chiefs or proponents.

- **Review of SSP activities** - Christoph Gaedicke reviewed the Site Survey Panel's ranking of proposals with respect to data completeness and readiness for drilling. He noted that the panel has about 15 to 20 reviews per meeting and will not reduce the number of meetings per year. He also reported that the planned July SSP meeting was cancelled as a result of the limited amount of new data available to the panel for review. Jin-Oh Park (Japan) was elected as Vice-Chair replacing Yoshikazu Yaguchi who left the panel.

Review of IODP-MI activities - Hiroshi Kawamura presented the SAS meeting schedule through November, 2008. He also reported on the statistics of programs currently in the system, including the four recently (April, 2008 deadline) submitted proposals. He noted that a single workshop on acquiring high to ultra-high resolution geological records of past climate change by scientific drilling was planned for September 29 – October 1, 2008 in Potsdam, Germany. He also reported that Emanuel "Manu" Soeding, Publications Manager is leaving the program.

Review of Proposal 605 (Asian Monsoons) – The scientific program and goals along with the drilling plans for Proposal 605 were presented by Ryuji Tada. The drilling program was designed to test whether the Plio-Pleistocene uplift of the Himalayas and Tibetan Plateau and their impact on atmospheric circulation is the cause of the amplification of the Asian monsoons. Specifically the program was designed to establish the onset of timing of orbital and millennial scale variability

of the East Asian monsoon; reconstruct the evolution and spatial variability of the monsoon; oceanographic changes in the Sea of Japan during the past 5 million years; and to establish the linkage, if any, between oceanographic changes in the Sea of Japan and variability in the East Asian monsoon. No significant issues associated with hydrocarbons are anticipated. There could be problems associated with the Japanese Fishing industry. It was also noted that site ECS-1B is close to a submarine cable. EPSP recommendations are summarized below.

Site Identification	Latitude	Longitude	Requested Depth of Penetration (m)	Comments
JS-1	37°02.00'N	134°48.00'E	400	Re-drill of ODP Site 798 – Recommend approval as requested
JS-3B	59°29.44'N	134°26.55'E	450	Recommend approval as requested
JS-4	41°41.95'N	139°04.98'E	250	Recommend approval as requested
JS-5B	43°45.99'N	138°49.99'E	200	Recommend approval as requested
JS-7B	40°11.40'N	138°13.90'E	150	Re-drill of ODP 794 - Recommend approval as requested
JS-9	38°37.00'N	134°32.00'E	200	Re-drill of ODP Site 797 – Recommend approval as requested
JS-10B	35°57.92'N	134°26.06'E	500	Recommend approval as requested
JS-11B	37°54.16'N	131°44.00'E	210	Recommend approval as requested
JS-11C	37°54.16'N	131°32.25'E	285	Recommend approval as requested

Site Identification	Latitude	Longitude	Requested Depth of Penetration (m)	Comments
ECS-1B	31°40.64'N	129°02.00'E	800	Recommend approval as requested – Contingent on position of cable – Cable must be located at least 1 km from proposed drill site

Approval of Site ECS-1B is contingent on the position of the submarine cable. The proponents need to confirm that the site is located at least 1 km from the cable. This confirmation should be provided to both the chair of EPSP and to IODP-MI. The proponents are also requested to provide specific latitudes and longitudes (degrees, minutes, and seconds or decimal equivalents). The current positions for several of the sites are specified only to minutes. Such positioning is insufficient for final planning and approval.

The chair has received the requested revisions to the latitudes and longitudes of the sites. The chair has also received confirmation that Site ECS-1B is located greater than 1km for the submarine cable.

Review of Proposal 519 – Part 2 (Great Barrier Reef) – Gilbert Camoin presented the scientific objectives of the proposal, the results of Part 1 drilling offshore Tahiti (Expedition 310), and the drilling plans for Part 2. The program was aimed at: (1) examining the last sea level rise associated with deglaciation; (2) analysis of reef responses to sea-level and climatic/environmental changes, including refinements of paleoceanographic and paleoclimatic proxies and (3) improving the calibration of the ¹⁴C timescale using coupled ¹⁴C-AMS and U-series measurements. The Tahiti drilling program was reported as being highly successful. Thirty-seven holes were drilled with high recovery efficiency. Intervals within ten holes were logged with a suite of slimline tools. As part of the drilling plan discussion the proponents requested that the panel approve drilling within an area represented by a 250 meter circle, with the reported latitude and longitude representing the center. This approach expands on the degree of flexibility previously approved by EPSP for the Tahiti drilling component of the proposal. EPSP recommendations are summarized below.

Site Identification	Latitude	Longitude	Requested Depth of Penetration (m)	Comments
RIB-01C(1)	15.376821°S	145.797081°E	40	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
RIB-01C(2)	15.377532°S	145.796549°E	40	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
RIB-01C(3)	15.378459°S	145.797471°E	40	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
RIB-01C(4)	15.379180°S	145.797907°E	40	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
RIB-01C(5)	15.381280°S	145.798042°E	100	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
RIB-2A(1)	15.471117°S	145.819641°E	40	Recommend approval as

Site Identification	Latitude	Longitude	Requested Depth of Penetration (m)	Comments
				requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
RIB-2A(2)	15.472104°S	145.821387°E	40	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
RIB-2A(3)	15.472159°S	145.822728°E	40	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
RIB-2A(4)	15.472200°S	145.823757°E	40	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
NOG-01B(1)	17.105769°S	146.562544°E	40	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
NOG-01B(2)	17.105173°S	146.564519°E	40	Recommend approval as requested – Latitude and

Site Identification	Latitude	Longitude	Requested Depth of Penetration (m)	Comments
				longitude reflect center point of a circle with a 250 m diameter
NOG-01B(3)	17.103910°S	146.568224°E	40	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
NOG-01B(4)	17.102880°S	146.571232°E	40	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
NOG-01B(5)	17.102105°S	146.573693°E	40	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
NOG-01B(6)	17.101290°S	146.576244°E	40	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
NOG-01B(7)	17.101027°S	146.577081°E	40	Recommend approval as requested – Latitude and longitude reflect center point of

Site Identification	Latitude	Longitude	Requested Depth of Penetration (m)	Comments
				a circle with a 250 m diameter
NOG-01B(8)	17.097260°S	146.589283°E	100	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
HYD-01C(1)	19.708822°S	150.218716°E	40	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
HYD-01C(2)	19.697998°S	150.225998°E	40	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
HYD-01C(3)	19.691560°S	150.230727°E	40	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
HYD-01C(4)	19.688527°S	150.232902°E	40	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter

Site Identification	Latitude	Longitude	Requested Depth of Penetration (m)	Comments
HYD-01C(5)	19.682638°S	150.237107°E	40	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
HYD-01C(6)	19.679317°S	150.239370°E	40	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
HYD-01C(7)	19.674186°S	150.243047°E	40	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
HYD-01C(8)	19.671596°S	150.244903°E	40	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
HYD-01C(9)	19.670582°S	150.245577°E	40	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
HYD-01C(10)	19.661382°S	150.252136°E	100	Recommend approval as

Site Identification	Latitude	Longitude	Requested Depth of Penetration (m)	Comments
				requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
HYD-02A(1)	19.851000°S	150.443412°E	40	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
HYD-02A(2)	19.844925°S	150.447449°E	40	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
HYD-02A(3)	19.827739°S	150.459089°E	40	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
HYD-02A(4)	19.820268°S	150.464141°E	40	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
HYD-02A(5)	19.818166°S	150.465602°E	40	Recommend approval as requested – Latitude and

Site Identification	Latitude	Longitude	Requested Depth of Penetration (m)	Comments
				longitude reflect center point of a circle with a 250 m diameter
HYD-02A(6)	19.808699°S	150.471978°E	40	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
HYD-02A(7)	19.800781°S	150.477785°E	40	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
HYD-02A(8)	19.798048°S	150.479993°E	40	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
HYD-02A(9)	19.797014°S	150.480869°E	40	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter
HYD-02A(10)	19.796285°S	150.481414°E	40	Recommend approval as requested – Latitude and longitude reflect center point of

Site Identification	Latitude	Longitude	Requested Depth of Penetration (m)	Comments
				a circle with a 250 m diameter
HYD-02A(11)	19.785651°S	150.488312°E	100	Recommend approval as requested – Latitude and longitude reflect center point of a circle with a 250 m diameter

EPSP recommends that the operator follow the guidelines for reef drilling and that a visual inspection be made before and after drilling to position the core away from living portions of the reef and to assess the impact, if any, of the drilling operation.

Review of alternate sites for Expedition 317 (Canterbury basin) – Mitch Malone presented a request by the co-chief scientists for two additional alternate drilling locations located in deeper water. It was noted that all currently approved sites, except alternate Site CB-06B, fall within shallow water coring guidelines (76-300 m; 301-650 m) and that it would prudent to add additional alternate sites >650 m water depth to provide contingency if sea states prevent occupation of primary sites. Following an initial review of the data, the panel tabled making a decision until later in the meeting and requested that Bob Bruce and Mitch Malone review the data available at the meeting and determine if any better data are available for the panel to complete their review.

Review of alternate sites Expedition 318 (Wilkes Land Paleooceanography) – Mitch Malone presented a request by the co-chief scientists for additional alternate drilling locations located to the east of the approved sites. These new sites would provide flexibility if it is a bad ice year. The ice clears from east to west along the Wilkes Land coast. Panel recommendations are summarized below.

Site Identification	Latitude	Longitude	Requested Depth of Penetration (m)	Comments
WLSHE-10A	66°6.8223'S	143°54.3437'E	1150	Recommend approval as requested
WLSHE-11A	66°15.0745'S	143°0.0252'E	1125	Recommend

Site Identification	Latitude	Longitude	Requested Depth of Penetration (m)	Comments
				approval as requested
WLSHE-12A	66°58.0413'S	143°31.0848'E	990	Recommend approval as requested
WLSHE-13A	66°0.040833'S	143°49.14'E	1000	Recommend approval as requested

Although the four alternate sites were approved the panel did note the marginal quality of the seismic data. The panel did feel that the nature of the sediments along with the available seismic did support approval.

In addition, Mitch Malone presented a series of corrected latitudes and longitudes for previously approved locations. The new values do not represent new positions.

Site Identification	Corrected Latitude	Corrected Longitude
WLRIS-02A	64°1.09973'S	139°48.28302'E
WLRIS-03A	64°47.47817'S	143°55.83114'E
WLRIS-04A	64°54.23754'S	143°57.68046'E
WLSHE-07A	66°8.82761'S	143°8.763'E
WLSHE-07B	66°8.74002'S	143°8.99334'E
WLSHE-08A	66°5.42394'S	143°18.7707'E
WLSHE-08B	66°6.8334'S	143°19.12013'E
WLSHE-09A	66°20.22546'S	142°46.27926'E
WLSHE-09B	66°22.03835'S	142°44.70833'E
ADEL-01B	66°24.8'S	140°25.5'E

Meeting was recessed at 5:00.

Meeting was called back to order at 8:30 on June 17, 2007

Review of Proposal 601 (Deep Hot Biosphere – Okinawa Trough) – The scientific objectives and drilling plans for Proposal 601 were presented by Ken Takai. Two specific objectives were noted: (1) to obtain direct evidence for the existence of functionally active, metabolically diverse subvent biosphere associated with subseafloor hydrothermal activities; and (2) to clarify the architecture and function of microbial ecosystems in physical, geochemical and hydrogeologic variations formed throughout the overall hydrothermal circulation. The drilling program was also designed to test how geothermal fluids were being supplied to

the system. It was noted that the Iheya North Hydrothermal System to be drilled is unique in that it has the highest reported CH₄ values. A number of EPSP issues were raised during the presentation and associated discussion. These included the presence of vent communities, the elevated temperatures (>300°C) that would be encountered, and the presence of sulfides and H₂S as well as elevated concentrations of CO₂. Following a lengthy discussion focused on the drilling into macrofaunal communities, drill string integrity, shipboard safety, and the drilling footprint, it was determined by the panel that the rewards to be gained by the drilling of a vent community outweigh the environmental risks and that EPSP's prior philosophy of attempting to "do no harm" should be restated to have minimal impact. EPSP approval assumes that there are numerous similar features in the region, that the one chosen for drilling is representative of other features in the region, and that it is not unique in the sense of being the largest, the best-developed or an extreme example in some other way". Panel recommendations are summarized below.

Site Identification	Latitude	Longitude	Requested Depth of Penetration (m)	Comments
INH-1A	27°47.45'N	126°53.82'E	50	Recommend approval as requested
INH-1B	27°47.4333'N	126°53.85'E	50	Alternate site - Recommend approval as requested
IHH-2A	27°47.51'N	126°53.79'E	50	Recommend approval as requested
IHH-2B	27°47.4750'N	126°53.8000'E	50	Alternate site - Recommend approval as requested
INH-3A	27°47.41'N	126°53.80'E	50	Recommend approval as requested
INH-3B	27°47.3667'N	126°53.80'E	50	Alternate site - Recommend approval as requested
INH-4A	27°47.40'N	126°53.86'E	100	Recommend approval as requested
INH-4B	27°47.3917'N	126°53.8833'E	100	Alternate site - Recommend

Site Identification	Latitude	Longitude	Requested Depth of Penetration (m)	Comments
				approval as requested
INH-5A	27°47.41'N	126°54.04'E	200	Recommend approval as requested
INH-5B	27°47.3917'N	126°54.0750'E	200	Alternate site - Recommend approval as requested
INH-6B	27°47.5213'N	126°54.7172'E	500	Recommend approval as requested
INH-7B	27°47.5169'N	126°55.3031'E	550	Recommend approval as requested
INH-8B			500	Not approved - relocated
INH-8C	27°48.0540'N	126°55.1789'E	500	Positioned by EPSP and approved at CDP point 710 on line MCS-16
INH-9B	27°49.1331'N	126°54.4929'E	750	Recommend approval as requested
INH-10B			1400	Not approved - relocated
INH-10C	27°47.4441'N	126°46.5713'E	1400	Relocated and approved at CDP point 229 on line CDP-2

Final approval of Sites INHC-8C and INH-10C are contingent on supplying latitude and longitude as well as updated site safety sheets for those sites where designations have been corrected (INH-6B, INH-7B, INH-8C, INH-9B, and INH-10C).

The requested data have now been provided by the proponents.

The high temperatures and presence of corrosive fluids caused by the presence of H₂S and CO₂ raise questions of drill-string integrity, which should be examined by the operator. Plans should also be made by the operator to monitor and potentially act on H₂S degassing from the cores.

It is further recommended that real-time monitoring of the sea floor be conducted using an ROV. It was felt that such monitoring would serve multiple purposes including the determining the initial character of the drilling location, the initiation and/or changes in the magnitude of flow as well as drilling's direct impact on the environment.

Review of Proposal 633 (Costa Rica Mud Mounds) – The scientific objectives and drilling plans for Proposal 633 were presented by Warner Brückmann, Christian Berndt, and Christian Hensen. This program was developed to examine active dewatering and fluid flow processes within an erosive continental margin. The Costa Rican margin was considered an excellent area to examine these processes as a result of the more than 100 mud mounds (dewatering sites) present. The drilling will assist in constraining the volatile and material budgets by examining changes in fluid chemistry and microbiology associated with flow paths. Plans also call for the examination of the role that seamount subduction plays in the creation of major pathways for deep fluid advection. Panel recommendations are summarized below.

Site Identification	Latitude	Longitude	Requested Depth of Penetration (m)	Comments
CRSM-02C	9°09'01"N	84°49'20"W	1000	Not approved - relocated
CRSM-02D	9°07'40"N	84°50'00"W	1000	Not approved - relocated
CRSM-02E	9°08'07"N	84°49'13.3"W	1000	Positioned by EPSP and approved at SP point 471 on line SO 81-13.DMIG – Final approval

Site Identification	Latitude	Longitude	Requested Depth of Penetration (m)	Comments
				was contingent upon receipt of new latitude and longitude and updated safety sheet, which has been received
CRSM-02F	9°07'28.8"N	84°49'33.3"W	1000	Positioned by EPSP and approved at SP point 418 on line SO 81-13.DMIG – Final approval was contingent upon receipt of new latitude and longitude and updated safety sheet, which has been recieved
CRMD-04A	10°17'52"N	86°18'22"W	800	Recommend approval as requested
CRMD-04B	10°17'44"N	86°18'33"W	500	Recommend approval as requested
CRMD-04C	10°18'05"N	86°18'19"W	500	Not approved - relocated
CRMD-04E	10°18'00"N	86°18'06"W	500	Recommend approval as requested
CRMD-04F	10°18'03.4"N	86°18'26.4"W	500	Positioned by EPSP and approved at SP point 1000 on line CUL-9 – Final approval was contingent upon receipt of

Site Identification	Latitude	Longitude	Requested Depth of Penetration (m)	Comments
				new latitude and longitude and updated safety sheet, which has been received
CRMD-05A	8°55'22"N	84°18'15"W	800	Recommend approval as requested
CRMD-05B	8°55'52"N	84°18'36"W	500	Recommend approval as requested
CRMD-05D	8°55'37"N	84°18'29"W	500	Recommend approval as requested

During Panel discussions on CRMB-04B, CRMD-04D, CRMD-05A, and CRMD-05B it was suggested that core-by-core monitoring be used for safety monitoring. It was noted by Mitch Malone that such a safety monitoring program would put those sites where extensive core-by-core examination (e.g., surface to 500 meters) in jeopardy. In order to potentially maintain these four locations as part of the program the panel has requested that the operator develop an alternate monitoring program, with a clearly defined decision tree and submit it to the panel for review.

It is recommended that real-time monitoring of the sea floor be conducted using an ROV. It was felt that such monitoring would serve to determine the initiation and/or changes in the magnitude of flow.

Meeting was recessed at 5:15.

Meeting was called back to order at 8:30 on June 18, 2009

Review of Expeditions 314, 315, and 316 (NanTroSEIZE) - Harold Tobin presented a technical overview of the first three NanTroSEIZE expeditions including a comparison of the pre-drill prognosis and the drilling results. Expedition 314 included logging while drilling (LWD) at five sites. Expedition 315 included coring at the planned deep sites. Expedition 316 included coring at thrust fault sites. The presentation provided a site-by-site summary of significant observations. Of particular interest to EPSP was the highly brecciated nature of the fault zone and

the presence of a number of deepwater turbidite sands that could act as potential conduits and/or reservoirs and could introduce drilling complications. Kazuhiro Higuchi discussed the changes to Stage I operations as a result of the ongoing operations. He noted that as a result of borehole stability issues the pilot holes were drilled without monitoring. The panel was concerned by the “blind” drilling of two pilot holes. ***The lack of LWD/MWD and/or coring was not considered a prudent way to operate and was not considered consistent with panel recommendations. The fact that the operator did not notify the panel of this change in operational plans was also considered a concern. The panel understands that the operator is ultimately responsible for the safe operation of their drillship, but the panel does feel it is responsible for the larger IODP program and should be kept informed of operator decisions.*** Kazuhiro Higuchi also reported that the higher currents (exceeding 5 knots at the surface) resulted in the delaying of the riser top hole.

Review of supplemental requests for NanTroSEIZE sites - Chikara Hiramatsu presented the risk matrix that CDEX is using as part of the NanTroSEIZE hazard assessment. The risk assessment before Stage I was reviewed. A shift of the axis of the current was observed, with current speeds often exceeding 3.5 knots. With the shift of the axis a second risk review was undertaken. This new assessment indicated that the risk at the original risk sites NT3-01B (C0002) and NT2-03B (C0001) was high. A high risk was also reported at NT2-04. A further complication association with shallow gas was also reported. Sufficient gas was present in some recovered cores to result in the explosion of a plastic liner. Shallow hazard risks at the newly proposed stage sites were considered as low to medium. Kazuhiro Higuchi noted that part of the problem with drilling in the Kuroshio Current is the reduced life of the riser as a result of vortex induced vibration. In order for EPSP to better understand the preparation that CDEX is making David Castillo presented the method being used to develop the geomechanical earth model and how that model is being used to develop the well design and casing program. Greg Moore presented the request for additional drilling locations as a result of anticipated drilling challenges caused by the migration of the Kuroshio Current into what was the primary drilling area. Simulations suggested that riser would not be stable in such currents and that in order to insure a greater likelihood of success a suite of new primary sites should be developed. Panel recommendations are summarized below.

Site Identification	Latitude	Longitude	Requested Depth of Penetration (m)	Comments
NT2-01J	33°12.597'N	136°41.199'E	600	Recommend approval as requested
NT2-01K	33°13.0464'N	136°42.765'E	600	Recommend approval as

Site Identification	Latitude	Longitude	Requested Depth of Penetration (m)	Comments
				requested
NT2-01L				No location specified - Not discussed by the panel
NT2-04C	33°22.529'N	136°36.319'E	3500	Contingent approval pending receipt of supplemental information and data detailed below
NT2-04D	33°21.019'N	136°32.337'E	3500	Contingent approval pending receipt of supplemental information and data detailed below
NT2-11A	33°28.212'N	136°32.419'E	3500	Contingent approval pending receipt of supplemental information and data detailed below
NT2-11B	33°27.471'N	136°32.150'E	3500	Contingent approval pending receipt of supplemental information and data detailed below

In addition to the newly proposed sites, the full panel acted on the previously submitted sites. This would provide additional drilling options if the Kuroshio Current switches back.

Site Identification	Latitude	Longitude	Requested Depth of Penetration (m)	Comments
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Site Identification	Latitude	Longitude	Requested Depth of Penetration (m)	Comments
NT2-03B	33°14.300'N	136°42.650'E	3500	Contingent approval pending receipt of supplemental information and data detailed below
NT2-03C	33°13.9075'N	136°41.811'E	3600	Contingent approval pending receipt of supplemental information and data detailed below

The recommendation for contingent approval is based on the assumption that the panel will be supplied with sufficient information to understand that an appropriate drilling program is in-place and that a detailed contingency plan has been developed. Panel members have been requested to provide any specific requests to the panel chair no later than July 15 for submission to the operator. Currently the panel requests that they receive: (1) the minutes and recommendations from the upcoming CDEX Peer Review; (2) the plans for pressure monitoring and/or shallow flow during drilling and the associated contingency plan; and (3) the contingency plan if hydrocarbons above background are determined to be present.

The operator has since responded with a statement that they will provide the requested information after their peer review meeting scheduled for October 24, 2008. They have also offered to provide an introductory seminar on their approach to riser drilling to EPSP

Presentation on shallow flow hazards - During the discussion on NanTroSEIZE a brief intermission was taken to accommodate a brief presentation by Craig Shipp on the hazards associated with shallow flow and the need to visually monitor the seafloor in the vicinity of the wellhead. Included in the presentation was a catastrophic shallow blow-out in the North Sea.

Continuation of discussion on alternate Canterbury basin sites - Mitch Malone reported that both he and Bob Bruce were unable to find within the material available more appropriate datasets to bring forward to the panel. The panel deferred a final decision pending receipt of supplemental data.

Site Identification	Latitude	Longitude	Requested Depth of Penetration (m)	Comments
CB-04C	44°57.8052'S	172°03.6799'E	1500	Recommendation by the panel was deferred
CB-05F	44°44.4039'S	172°35.8192	1320	Recommendation by the panel was deferred

USIO and/or co-chiefs will provide to EPSP additional seismic displays including uninterpreted and lower gain versions of the lines supplied. The panel will conduct an electronic review of the data and provide final recommendations on both sites. **The requested data have been received and reviewed by the panel. Through an electronic review the panel has recommended approval of both requested sites, if the operator determines that the seafloor slope is not too great to prevent safe operations.**

Recommendation for new Vice-Chair - A brief discussion was held among panel members. It was agreed that the panel would adopt the recommendation of outgoing Vice-Chair Toshi Matsuoka and that Manabu Tanahashi be brought forward to SPC for approval.

Next meeting - The panel chair noted that based on the meeting rotation schedule the next EPSP meeting should take place in Japan, June 2009. The last week of June and June 7-10 should be avoided because of potential conflicts. No volunteer came forward to host the meeting. The chair ruled that final meeting dates and venue would be determined before the meeting of SPC in August and that an option was to break the meeting rotation schedule and hold the meeting in Denver in association with the AAPG meeting.

Acknowledgements - The panel acknowledged the contributions of outgoing Vice-Chair Toshi Matsuoka and panel member Bob Bruce. Their participation will be missed. The panel also thanked the meeting hosts Dieter Strack and Jochen Erbacher.

Meeting adjourned at 4:45.