

Sixth EPSP Meeting – June 22-23, 2006
Geosciences-Azur
Observatoire Oceanologique de Villefranche sur Mer
Villefranche sur Mer, France

Called to order: The sixth EPSP meeting was called to order by the chair at 9:00, on June 22, 2006, at the Geosciences-Azur, Observatoire Oceanologique, Villefranche sur Mer, France.

Welcome: Jean Mascle meeting host welcomed attendees and explained the meeting logistics and history of the institution.

Self introductions: Self introductions were made by all attendees.

EPSP Members Present: Akito Furutani, Masami Hato, Hans C. Juvkam-Wold, Masahiro Kamata, Barry Katz (Chair), Tadashi Maruyama, Jean Mascle, Toshifumi Matsuoka (Vice Chair), Sumito Morita, Bramley Murton, Craig Shipp, Dieter Strack, and Toshiki Watanabe

EPSP Alternates Present: James A. Austin, Jr., André W. Droxler

EPSP Members Absent: Bob Bruce, Donald Potts, Jerome Schubert, and Bill Winters

Guests: Kan Aoike (CDEX), Jack Baldauf (USIO-TAMU), Keir Becker (SPC), George Claypool (TAMU Safety Panel), Neil DeSilva (TAMU Safety Panel), Earl Doyle (SSP), Colin Graham (ESO), Martin Hovland (TAMU Safety Panel), Tom Janecek (IODP-MI), Greg Moore (Proponent Proposal 603), Heiko Pälike (Proponent 626), Daniel Quoidbach (USIO-LDEO), Alister Skinner (ESO), Kyaw Thu Moe (CDEX), Paola Vannucchi (Proponent Proposal 537), and Barry Zelt (IODP-MI)

Approval of prior meeting minutes: No additional corrections to the minutes from the December 2005 meeting were brought forward.

Review of SPC activities: Keir Becker reviewed key actions of the SPC that may directly or indirectly impact EPSP activities. It was stated that the hiatus in drilling has provided an opportunity to advance the multi-year scheduling of the program beyond that requested by the lead agencies. The March 2006 ranking of proposals by SPC was reviewed. It was noted that 13 proposals were sent to OTF for scheduling. Proposed drilling plans have been outlined into FY 2009. There were several key changes to the recommended science plan since the last EPSP and SPC meetings. The new proposed drilling plan has recently been drafted by OTF and will be presented to SPC in August. The changes resulted from a delay in the start-up of the SODV, technical issues, and costs associated with CRISP. Drilling by the SODV is now scheduled to begin in November 2007

as opposed to August 2007. A change in the science advisory structure was reported. SPPOC was disbanded and replaced by SASEC. This is a smaller executive committee (10 members and reflect the same membership ratio as presented in the Memoranda). The first SASEC Meeting will take place at the same time that the original SPPOC meeting was planned for in July. The last item covered was the status of the Mission Implementation Plan. A third small working group will be established to integrate mission planning with the normal proposal process. For clarity, Keir provided the approved definition of a Mission - as an intellectually integrated and coordinated drilling strategy originating from the scientific community that addresses a significant aspect of an IODP Science Plan theme on a global basis over an extended period of IODP, and merits urgent promotion in order to achieve overall IODP program goals. Prior to SPPOC's dissolution it approved an accelerated one-time program to establish two missions. Two potential missions suggested at the recent SSEP meeting were the "Seismogenic Zone" and "Global Carbon Cycling and Climate Change: Testing the IPCC Report".

Review of JOI Alliance activities: Jack Baldauf presented the JOI Alliance review. He noted key operational issues including the demobilization of the *JOIDES Resolution* and staffing changes. SODV highlights were also presented. These included the completion of the SODV and logging contract negotiations and continuing work on the engineering designs. Scientific instrumentation has been prioritized. Issues under consideration were also noted, which included the acquisition of larger diameter pipe for logging, visualization, and heave compensation. Work is continuing on the development of the environmental impact statement. The *Resolution* will undergo significant modification, including a lengthening. It is anticipated that a shipyard in Southeast Asia will be selected for the refit. At the request of the lead agencies the first expedition will begin from the shipyard. The timeline will continue to be adjusted throughout the dry dock phase. A preferred drilling program was presented and included the Equatorial Pacific, NanTroSEIZE, Bering Sea, Juan de Fuca, Canterbury and Wilkes. Clearance and other schedule issues were noted. The preliminary results of the shallow hazard assessment for Canterbury were presented. Potential safety issues were raised. Additional discussions will take place between operator and contractor prior to the December EPSP meeting.

Review of CDEX activities: Kyaw Thu Moe presented a summary of CDEX activities. The most significant activities have been associated with the build-up to the riser shakedown cruise offshore the Shimokita Peninsula (Aug. – Oct. 2006), the completion of the annual inspection, and the Nankai 3D Survey.

Review of ESO activities: Colin Graham presented a summary of ESO activities. Recent activities included the shore-based sampling party for Expedition 310 (Tahiti – Sea Level) and the preparation for drilling along the New Jersey margin. Tenders had been issued, with four contractors having responded. A decision was made to delay New Jersey drilling to FY 2007. The delay was a result of

both technical issues as well as financial issues. Technical issues were associated with logging and the choice of platform type – a jack-up would require an independent geotechnical survey prior to drilling, including a 40-foot core at each site. Plans for future drilling were less clear, in large part, because of survey data availability.

Review of SSP activities: Earl Doyle presented a review of SSP activities. A revised proposal completeness classification system is being used, which incorporates in addition to data availability a data adequacy component. A status report of the proposals was presented, however, the actual rankings were not. SSP has also developed a text for data requirements. They are also reviewing issues associated with the SSDB.

Review of IODP-MI activities: Barry Zelt presented a brief overview of proposal status for the program. There are currently 124 active proposals in the system. Twenty seven of these programs are resting with OTF, 16 are with SPC, and 81 are with SSEP. Barry also presented a status report for the Site Survey Data Basnk (SSDB). Development of the data bank continues. The July SSP meeting will be the first remote test for the SSDB. A Matrix prototype now exists online.

Review of Proposal 626-Full2 (Cenozoic Pacific Equatorial Age Transect): The scientific objectives and site-by-site review of Proposal 626 was presented by Heiko Pälike. The scientific rationale for the proposal was the collection of a well preserved Eocene to Miocene carbonate record for the Equatorial Pacific in order to examine issues of paleoproductivity and to develop a more complete basin-wide circulation and sedimentation model for the Pacific. Drilling will also provide an opportunity to validate and extend the astronomically calibrated timescale and aid in examining issues associated with biological turnover and evolution associated with period of environmental stress. The sites were selected in order to fill scientific gaps that have been identified in the results from prior scientific drilling. Site selection was complicated because of the need to resolve site locations through time and the interaction of crustal subsidence and the position of the CCD. The aim was to target a $\pm 1^\circ$ belt around the paleo-equator, with adequate consideration of hydrothermal alteration near basement, and a bias slightly towards the south to compensate for plate movement and paleo-productivity. Heiko noted that sites PEAT-1-4C and PEAT-6C were the highest priority. The site survey was only recently completed. Multi-channel data were collected. Velocity control was from prior DSDP and ODP drilling. Although reflector continuity was observed over long distances EPSP felt that the velocity assumptions may not be completely valid and that drilling depths should be adjusted to account for any uncertainty. Heiko stated that the plans at each of the proposed locations were to drill 5 meters into basement (defined for this proposal as the first encounter with igneous rock). Following the general overview and associated discussion a site-by-site review was undertaken. (As a result of the low risk ranking for this proposal no watchdogs were assigned.) The results of this review are presented below.

Site Identification	Latitude	Longitude	Depth of Penetration (m)	Comments
PEAT-1C	12°04.089'N	142°09.698'W	250	Approved - no EPSP issues identified. Site was deepened from that originally proposed (192 m) to account for uncertainty in velocity structure and basement pick.
PEAT-2C	11°54.711'N	141°02.744'W	250	Approved - no EPSP issues identified. Site was deepened from that originally proposed (167 m) to account for uncertainty in velocity structure and basement pick.
PEAT-3C	10°30.997'N	138°25.175'W	250	Approved - no issues identified. Site was deepened from that originally proposed (179 m) to account for uncertainty in velocity structure and basement pick.
PEAT-3D	10°32.720'N	138°20.183'W	250	Approved - no issues identified. Site was deepened from that originally proposed (186 m) to account for uncertainty in velocity structure and basement pick.
PEAT-4C	07°59.999'N	131°58.396'W	300	Approved - no issues identified. Site was deepened from that originally proposed (273 m) to account for uncertainty in velocity structure and basement pick.

Site Identification	Latitude	Longitude	Depth of Penetration (m)	Comments
PEAT-5C	07°42.075'N	128°15.254'W	300	Approved - no issues identified. Site was deepened from that originally proposed (258 m) to account for uncertainty in velocity structure and basement pick.
PEAT-5D	07°42.069'N	128°06.568'W	330	Approved - no issues identified. Site was deepened from that originally proposed (301 m) to account for uncertainty in velocity structure and basement pick.
PEAT-6C	05°18.736'N	126°16.997'W	400	Approved - no issues identified. Site was deepened from that originally proposed (367 m) to account for uncertainty in velocity structure and basement pick.
PEAT-7C	03°50.009'N	123°12.352'W	480	Approved - no issues identified. Site was deepened from that originally proposed (457 m) to account for uncertainty in velocity structure and basement pick.
PEAT-8C	02°36.327'N	117°59.412'W	480	Approved - no issues identified. Site was deepened from that originally proposed (460 m) to account for uncertainty in velocity structure and basement pick.

In order to obtain final drilling approval proponents are required to submit to the EPSP Chair, USIO and to IODP-MI the completed safety sheets for PEAT-3D and PEAT5-D.

Preview of Proposal 537A (Costa Rica Seismogenesis Project CRISP Program A):

Paola Vannucchi lead proponent presented the scientific objectives and a site-by-site overview. The purpose of the preview was to familiarize EPSP with the proposed drilling and to identify panel needs and requirements prior to the formal review. The material presented at the current panel meeting represents that portion of the program aimed at sampling the input and output from the seismogenic zone. Part B, which is not part of this preview, represents an examination of the deeper décollement. Part A objectives include an examination of the architecture, composition, and physical properties of the subducting crust and sediments; an examination of the fluid pressure gradient and advection through time; constrain fluid-rock interactions; and to measure the stress field. The Costa Rica margin is an erosive subduction margin and its selection complements that of Nankai, which is an accretionary subduction margin. The program presented to EPSP included five riserless sites, including two reference locations. Plans are to deepen two of the “test” locations – CRISP 3A to 3.5km from 900m and CRISP 4A to 4.5km from 950m during Part B. Post-cruise instrumentation plays a major role in the scientific program.

It should be noted that no panel watchdog was assigned to this proposal prior to the preview. The panel found no potential issues with either of the two reference locations and most probably could approve their drilling, where positioned, without a cross-line. The data available for the three other sites was not, however, considered adequate for the review. Two issues were raised – the processing of the available data, which did not permit an assessment, and a lack of sufficient data. With regard to data processing – **Jamie Austin has volunteered to provide some guidance to the proponents on reprocessing and/or redisplaying the data to optimize imaging in the shallow portion of the section. He will be provided the acquisition and current processing parameters by the proponents and provide to the EPSP panel chair by July 17th his recommendations, which the panel chair will circulate among the panel members for comment. Final recommendations will be provided to the proponents by the chair no later than August 1, with an understanding that an attempt will be made to reprocess the available seismic for a review at the next EPSP meeting. It was also requested that when presented next to EPSP that an interpreted and uninterpreted record be made available and that the data be at a sufficient scale and resolution to examine geologic structure.** With regard to data availability a discussion took place as to who would be responsible for any additional site surveys since they would need to be undertaken for safety reasons and no scientific justification. Tom Janecek stated that the lead agencies are of the opinion that because it is a safety issue it would fall under the realm of the operator (POC). Janecek noted that he would enter into a dialogue with the lead agencies on this issue. With

regard to the lack of adequate data – **EPSP is recommending that at a minimum a 3 lines x 3 lines survey be conducted over each of the three “test” sites, with 500 meter spacing and the lines extending a minimum of 3 km in each direction from each site location.** Keir Becker has requested that SSP review their ratings of the dataset in light of this discussion and site relocation. **EPSP also requested a clear statement as to how LWD will be used in the proposed program. The proponents were also advised to develop a number of contingency and alternate sites for both scientific and possible technical issues associated with drilling. Because of potential issues associated with over-pressure and fluid flow, EPSP the panel requests that the IO for the program prepare a protocol document with plans on how these issues will be dealt with while drilling.**

Review of Chikyu Shakedown Cruise Sites and Plan: Kan Aoike presented an overview of the planned shakedown cruise scheduled to begin August 8, 2006. This was an informal review since the drillship has yet to be “turned over” to IODP. EPSP was reminded of the objectives of the shakedown cruise – drilling system integration testing, crew familiarization, and laboratory equipment testing. The riser drilling test will include two pilot holes and a deep riser test offshore the Shimokita Peninsula. The site selection requirements were reviewed. The site specific data were presented including a review of potential hazards and how the final drilling location was selected to minimize risk. The site was position outside of the area where both BSR’s and potential free gas has been identified in the shallow section. Prior HPCS provided data to support sufficient shear strength to support the setting of the conductor pipe. Metaocean data were also found to be within the operational limits of the drillship. The hole prognosis presented suggested that penetrated section will be dominated by mudstones, with decreasing amounts of sands and conglomerates with depth. A limited amount of coal was anticipated in the Eocene section. Overpressure was not expected. The safety review process used by CDEX for the shakedown cruise was noted. It was noted that this process differs from that to be used for IODP expeditions. There will be greater interaction on IODP legs. The specifics of the well design concluded the presentation.

Meeting was recessed: 17:50

Meeting called back to order: June 23 at 8:55

Preview of NanTroSEIZE (Proposal 603) Kumano basin sites: Greg Moore presented the preview for the non-riser portion of the Kumano basin portion of the proposed drilling program. He began with an initial review of the scientific justification for the program, the available data, the 3-D data that has been recently been collected and is currently being processed, and the overall drilling and coring program. He reviewed the proponents assessment of the potential drilling hazards and the previous drilling along the margin. Among the issues highlighted were the presence of BSRs (hydrates), generally minimal amounts of

free gas, abnormal pressure and shallow water flow (although this was not a reported problem in prior drilling). He noted that weather (typhoons) and the migration of the Kuroshio Current back into the drilling area could pose safety issues. Moore displayed the impact of the current on the 3D seismic data acquisition. It is anticipated that the processing of the 3D dataset will not be complete until mid-November. It was suggested based on the current interpretation of the side-scan sonar that there were no active seeps in close proximity to the proposed drilling locations although they are known along the margin. EPSP asked that a visual inspection of the drillsites be conducted to insure that no seep and associated biologic community exists within 150 meters of the drilling location prior to spudding in.

Following the overview the panel began a site-by-site examination. Although there was an attempt to approve some of the proposed locations Dieter Strack and Masahiroa Kamata recommended that a decision be deferred. This was formalized by a motion was made by Austin and Droxler to defer final approvals until the 3D data are available. The motion was passed unanimously. It was felt that there were a number of imaging issues in the 2D dataset and there was a reasonable likelihood that some of the proposed sites will be moved when the planning group meets. Among the issues of concern by the panel were; the poor illumination of the fault splay and lack of an adequate explanation for the seismic washout zone near site NT2-01A; the presence of a BSR and a possible fluid escape structure in the vicinity of NT2-03B; the positioning of NT02-02A on a rollover and the presence of a BSR (need to propose an alternative location); the positioning of NT2-04A on what appears to be structural closure at depth as well as the presence of a strong BSR (recommended either relocating the site or reducing the depth of penetration); and the presence of a BSR at NT2-04A. A better image has been requested for NT2-9A. **The proponents are asked to review these issues and to be prepared to support their site recommendations at the January panel meeting.** Sumito Morita will act as EPSP watchdog for 603B and C.

The panel noted that when approvals are granted they would be contingent upon the panel's approval of the final drilling protocol for NanTroSEIZE program.

Update on proposal 600 (Canterbury basin): Craig Shipp, substituting for Bob Bruce, presented an update on the work program from the Canterbury basin. He reviewed EPSP's requests to the proponents based on the December preview. Bob's work with the lead proponent (Craig Fulthorpe) indicates that the data are of sufficient quality to detect the presence of gas in the system. At depths shallow than 1 second gas should display a clear amplitude anomaly. At depths greater than 1 second although less obvious gas should still be detectable. A series of processing experiments concluded that different gains should be used for interpretation – a lower gain (50) should be used when interpreting the section less than 1 second and a higher gain (100) should be used for the deeper section. An analysis of the velocity structure also indicated that the section should be

normally pressured. (Although not discussed during the panel meeting an addendum to Proposal 600 was included in the meeting pre-read. This included the addition of a series of alternate and or additional sites as recommended by the panel at the December meeting.) Jack Baldauf commented that the initial review of the available dataset suggests that it will be satisfactory for the required shallow hazards assessment and that a “final” report is expected for the next EPSP meeting. It was also observed that because of the water and target depths the completion of the proposed drilling program could require the use of multiple platforms. The potential for the use of multiple platforms raises questions as to which operator is ultimately responsible for the shallow hazard survey and other EPSP requests.

Discussion on operational protocol for NanTroSeize: Kyaw Thu Moe presented the status of the operational protocol. The presentation on the draft protocol was requested by EPSP because of the need for close coordination between the CDEX and the USIO. The components of the protocol document under preparation include the operation strategy (drilling procedure, safety monitoring, and emergency procedures) and collaboratory efforts between the operators. A preliminary decision tree for the nonriser portion of NanTroSEIZE was presented. The initial safety monitoring plans call for an ROV visual examination of the borehole in water depths less than 3000m and LWD/MWD when water depths exceed 3000m. The LWD/MWD protocols will be developed and presented independently but will rely on experience gained from Expeditions 308 and 311. Clear chains of command will exist for abandonment and emergency decisions. Plans are being developed for pre-cruise data exchange, syn-cruise data exchange, and post-cruise data transfer. These plans include the frequency and nature of the data to be transferred.

It is anticipated that as a result of the nature of the platforms and the staffing arrangements there will be differences between the SODV and Chikyu. The panel has asked that when the final protocol is submitted to the panel for review that these differences are highlighted.

Update on proposal 595 (Indus Fan): Craig Shipp, as watchdog, presented an update on the Indus Fan-Murray Ridge proposal. He began by reminding EPSP of the key concerns that they had raised. He reported that the velocity control for the region was good and the proposed drilling depths should be accurate. It was noted that there was no evidence for bright spots in the vicinity of MU-1C although there does appear to be shallow gas elsewhere in the region. It was, however, noted that the site does penetrate an apparent structural closure. Shell will be drilling an obligatory well about 10km from the proposed drill site and will most probably make the data available to the lead proponent (Peter Clift). This data release should include pore pressure prediction.

Review of ESO’s reef drilling guidelines: Colin Graham presented an overview of guidelines developed and used by ESO for the drilling of Tahiti. The guidelines

developed were consistent with the original IODP reef drilling draft, but clarified and finalized several issues (e.g., the question as to whether there should be an attempt to cement following drilling). He recommended that the draft IODP Reef drilling guidelines be formally updated to include the experience gained from Tahiti and used as the template for future reef drilling (e.g., Great Barrier Reef). EPSP agreed and ask that **ESO update the document and present it to EPSP so that they may review and forward to SPC for adoption as the formal reef drilling guidelines.**

Alister Skinner supplemented this initial discussion with some of the technical issues that were encountered during the actual Tahiti drilling operation. Chief among the issues was the inconsistency between the reported and observed bathymetry. These differences in bathymetry resulted in the original drilling locations being unsuitable for coring and the out of cycle approval by EPSP of a suite of alternate sites. A more accurate understanding of the water depth would have changed the drillship specification, which would have in turn resulted in a cost savings to the program. Skinner reported that a dynamically positioned ship was the platform of choice because it eliminated any footprint on the reef. It was suggested that shallow coring in these settings is more dependent on an accurate understanding of sea-floor morphology rather than a detailed understanding of subsurface conditions. A downhole camera was developed to assess the presence of live coral and to determine post-drilling effects. It was important to note that although there were a number of technical problems including the need to relocate drilling locations no environmental incidents occurred. The observed impact to the “dead” reef was considered minimal. The logging program was very successful and provided clear evidence why core recovery was low (i.e., the presence of cavernous porosity).

At the conclusion of the reef drilling presentation additional comments were provided on the proposed New Jersey margin drilling. Issues that will need to be resolved include a determination as to whether a jack-up rig will be needed (if so, a geotechnical survey will need to be completed), a refined understanding of anthropogenic hazards (cables, unexploded ordinance, etc.) will need to be made, a determination of water depth (including how water depth was determined) and currents.

Discussion on pre-proposal 705 (Santa Barbara basin): The Chair and Keir Becker introduced the proposal and the objectives of the discussion, which were two-fold: 1- would EPSP consider approving the requested drilling program?; and 2- if the panel would consider approving the requested program under what conditions would such approval be granted (requirements for the safety review, drilling constraints, etc.)? EPSP was reminded that the proponents were considering seven sites, in water depths ranging from 110 to 555 meters, with penetrations as great as 1200m. A brief summary of prior drilling and PPSP (ODP’s equivalent to EPSP) actions were reviewed. The panel members were reminded that the Santa Barbara basin is a petroliferous basin, with active oil

seepage and shallow hydrocarbon production. During the discussion it became clear based on a statement included in the pre-proposal that there was a misunderstanding of the actual drilling capabilities that currently are available. The proponents state in the proposal “new drilling technology , including the IODP riser ship *DSN Chikyu*, and other drilling platforms that eliminate or significantly reduce much of the previously perceived risk”. There was universal agreement among the panel participants as well as the three IOs that the current technologies available to the program have not significantly impacted the overall risk that exists. There was consensus among the panel that the hazards are high and that the probability of encountering at least one drilling hazard is also high. It was, therefore, concluded that the overall risk to the ship, personnel, and the overall IODP program was high. The panel therefore recommend that the **SPC chair discourage the proponents from developing a full proposal since there would be a very low probability that EPSP could recommend site approval, as a consequence of the available technologies inability to provide adequate well control during the coring of the upper 300 to 500 meters of sediment.** Additionally EPSP panel noted that the currently proposed locations even with the benefit of additional high resolution seismic were located on structural highs and penetrated zones that appeared to contain gas.

Preliminary review of LWD/MWD operational templates: Kyaw Thu Moe

presented the draft working template for LWD/MWD operations that will be used by all three IOs. The reasoning behind the template was presented and then the documents various components were discussed. (The template will be included in the final EPSP Meeting CD.) It was noted that this will be a living document, as a result of changing tools and scientific questions. It was suggested that three additions be made to the template: 1- how mitigation at one site may influence the remainder of the drilling program (i.e., how does consumption of mud limit additional drilling?); 2- dependency of sites (i.e., could termination of a site during drilling preclude the drilling of any or all of the remaining sites?); and 3 – what are the contingency plans if a expedition needs to prematurely terminated. It was also noted that there should be a clarifying statement that differentiates between riser and non-riser operations. The proposed template was developed for non-riser operations. Other issues that were highlighted during this discussion included the need to review and update the hydrocarbon monitoring guidelines. This review needs to clarify the relationship between the results of geochemical hydrocarbon monitoring and the results of MWD. The review/revision should include some discussion on the use of borehole offset information. **The panel chair will attempt to include this review as an item either on the January or June meeting agenda. Alternatively this may require a special meeting of a sub-panel.**

Review of guidelines for the preparation, presentation, and distribution of an EPSP safety review report and presentation and expedition safety package:

A discussion was held on the report. It was recommended that there be two

minor additions be made. The first is a clear statement as to the type of individual that would be best suited to make the safety presentation to EPSP. The second is to provide a definition of preview and review. **The EPSP chair will provide both additions to Barry Zelt at IODP-MI.** It was further felt that additional details could assist proponents. The panel was reminded of the document prepared by Bob Bruce and Craig Shipp (To be included in the final EPSP meeting CD.). **The panel agreed that the draft report be forwarded by the EPSP chair to Barry Zelt for editing and posting on the IODP-MI website along with the guidelines.**

Other new business: Bramley Murton agreed to serve as the watchdog for the CRISP (537A and 537B) proposals.

A brief discussion on panel member continuity was held. It was universally agreed that EPSP's overall effectiveness has been impacted by the significant turnover in membership over the last eighteen months. There is a significant learning curve for new members. It was felt that this turnover may potentially impact the overall safety record of the program. **It is requested that IODP-MI discuss this issue with the various national committees and recommend that they consider the reappointment of members after conferring with the panel chair, as permitted by the panel's mandate, rather than appoint new panel members.**

Next Meetings: The date for the 7th EPSP meeting has been moved to January 9-10, 2007 in Yokohama. The meeting host will be Greg Moore. The agenda will tentatively be limited to a NanTroSEIZE review, a CRISP preview, and a Canterbury basin preview.

The date for the 8th EPSP meeting has been tentatively set for June 25-26 at Scripps. Host to be determined.

Acknowledgements: EPSP thanks Jean Mascle for acting as their host.

Adjournment: Meeting was adjourned at 17:30.