Chikyu IODP Board #2 meeting
10-11 July 2014
Miyoshi Memoriam Auditorium
JAMSTEC Yokohama Institute for Earth Sciences (YES)
Final Minutes

Day-1 **Thursday, 10 July 2014**

1. Welcome Remarks

(09:00 h.)
Chair Gaku Kimura welcomed the CIB members, liaisons and observers. He asked the JAMSTEC Executive director and CDEX Director General Hitoshi Hotta to deliver the opening remarks. H. Hotta mentioned that IODP operations are very important for scientists and that *Chikyu* operations are also important for JAMSTEC. He informed the group that they would discuss finance and administrative issues in this meeting. Even though there are some negative issues to discuss, he expected that the participants would, through various discussions, overcome such issues over the next two days.

2. Introduction and Logistics

(09:04 h.)
Chair G. Kimura began Item #2 with a briefing on the general rules for making a CIB decision by common consensus. He stated that if the CIB fails to reach consensus, the chair can make a final decision. After that, the CDEX Deputy Director General Shinichi Kuramoto introduced the current D/V *Chikyu* status, specifically, SIP Okinawa, a scientific drilling project in a hydrothermal region off Okinawa, initiated due to social demands and government order, and run on a budget separate from IODP operations. HSE group leader Shigemi Matsuda gave a brief description on emergency escape routes and instruction. He also briefed the group on logistics, coffee breaks, lunch in the cafeteria, smoking areas, Internet connections, and the welcome reception in the evening.

3. New JAMSTEC Direction

(09:11 h.)
Director H. Hotta explained the new direction of JAMSTEC in light of the changes in Japanese government policy after the 11 March 2011 Tohoku earthquake; the current top priority of science is to contribute to industry and to the general public. It is necessary for governmental institutions like JAMSTEC to meet this prioritized policy. The Japanese government cut 9% of the budget to concentrate on starting political strategy for growth. Knowing that such changes in politics and economics are not isolated to Japan, JAMSTEC has merged all three disciplines of research area and established seven research centers

this April. JAMSTEC needs to change the direction of science, ship operations, and the distribution of opportunities, while contributing to commercial drilling and other government-oriented drilling. These can provide JAMSTEC the opportunities to obtain the technological developments, additional budgets, and make good relationships with other countries. Please understand that while the situation is not preferable, JAMSETC's first priority is to conduct IODP scientific drilling with regards to JAMSTEC's re-oriented focus.

Chair G. Kimura asked the group if there are any questions, and no questions arose. He announced that two CIB science members, Yoshiyuki Tatsumi and Kenneth H. Nielsen were absent, so final consensus should be finalized through email communication after the meeting.

Chair G. Kimura informed the group that the meeting was being recorded. Since part of Item #2, Introduction and Logistics, was accidentally skipped, Chair G. Kimura let all the participants begin self-introductions (going around) at 09:22 hrs.

4. Approval of Agenda

(09:28 h.)
Chair G. Kimura confirmed the agenda with the group. There were no major changes or modifications in the Agenda item; however, the JTRACK workshop report presenter (Item #16 in the original Agenda ver. 4.0), Shuichi Kodaira, will not be able to come tomorrow morning, therefore he will present after he arrives. S. Kuramoto additionally proposed that the meeting start might be delayed for one hour on the following day, depending on weather conditions. This will be decided this evening.

CIB_Consensus_0714-01: The CIB approved the #2 meeting agenda with small modification (*timing of JTRACK WS report*).

5. CIB Decisions since Last meeting

(09:30 h.)
Chair G. Kimura confirmed the consensus items made after the last meeting (CIB_Consensus_0713-31 through 0713-35). He read out the five items, and asked if there were any required changes. No changes were made, and they were approved.

CIB_Consensus_0714-02: The CIB confirmed the consensus items made after the previous meeting.

Heinrich Villinger asked about final decision that the CIB is working on IBM PCT; however, there was no final decision yet. Chair G. Kimura answered, as it is an issue of this meeting.

Nobuhisa Eguchi additionally commented that the IBM PCT members would be finalized in this meeting.

6. Approval of Last Meeting Minutes

(09:32 h.)
Chair G. Kimura asked the CIB members about any comments or questions on the minutes from the last meeting. No comments or questions arose, and they were approved.

CIB_Consensus_0714-03: The CIB approved the draft meeting minutes from the 1st CIB meeting.

(09:33 h.)
N. Eguchi added to mention that he would post the last meeting's minutes on the CIB website after including all the approved five consensus items (Item #5).

7. Approval of CIB TOR revision

(09:34 h.)
Shinji Hida described minor changes in the revised ToR included in the Agendabook. (The first change was that the word "funding" was added after "the necessity" regarding workshops. Another change is that PAT and PCT activities were added in order to clearly underline its importance for CIB Mandate. The word "PEP" was changed into "SEP", and also the word "Science" was added before "Support office" to be more accurate in the liaison part.) Holly Given proposed that she would add the finalized minutes including ToR to iodp.org website if the CIB requested. Chair G. Kimura appreciated H. Given's proposal. The CIB ToR revision was approved.

CIB_Consensus_0714-04: The CIB accepted revised terms of references as presented.
Changes:
1. Mandate: The establishment of riser full-proposal formation workshops had been changed to The necessity of funding full-proposal formation workshops.
Added The establishment of Proposal Advisory Team (PAT) and the establishment of Project Coordination Team (PCT).
2. Membership: PEP chair and Support Office (SO) had been changed to SEP Chairs and Science Support Office (SSO), respectively.

8. CIB Action Item Status

(09:37 h.)

S. Hida described current CIB action item status as below. There were six consensus items listed as CIB action items in the previous meeting, and Consensus items 22 to 24 and 27 were completed as discussed. Consensus items 25 and 26 should be discussed at this meeting.

- CIB_Consensus_0713-22: The CIB will review CDEX proposed revisions, in time for August 2013 JRFB meeting. **Completed**.
- CIB_Consensus_0713-23: Three FB chairs send a message to curators requesting implementing procedures. **Completed**.
- CIB_Consensus_0713-24: Small working group across FBs will work some modification prior to the next proposal submission deadline of 1 October 2013. **Completed**.
- CIB_Consensus_0713-25: Small working group across FBs will work its contents and the CIB support office will inform CIB at the next meeting. **To be discussed at this meeting.**
- CIB_Consensus_0713-26: The CIB wait for *Chikyu* version of "Third Party Tool Guidelines" at its next meeting. **To be discussed at this meeting**.
- CIB_Consensus_0713-27: The CIB agreed that chairs of the boards (CIB, JRFB and EFB) ask the three curators at the core repositories to update the Sample, Data & Obligation Policy, especially that they split up the document in a fairly short (two to three pages) policy statement and an implementation plan which contains all the details (see also CIB_Consensus_0713-23). **Completed**.

H. Villinger pointed out that the CIB members have not yet discussed the IODP Sample, Data and Obligation Policy and Implementation Guideline. N. Eguchi mentioned that both the JRFB and EFB have already approved, and the CIB would like to approve it at this meeting. CIB Action Item Status was accepted.

9. Chikyu Membership Status

(09:41 h.)
S. Kuramoto presented *Chikyu* membership status. *Chikyu* membership is categorized into four categories: regular, partnership, project, and others. ECORD is a regular member with 1 M USD per year contribution, and the MoU was signed in February of this year. ANZIC is also a regular member with a contribution of 300 K USD per year. Although the contribution of 300 K USD is categorized as associate member in MoU, ANZIC is tentatively placed in the regular member category with the understanding that they would try to raise their contribution up to 1 M USD per year in future. As introduced, JAMSTEC has two regular members. Currently, on the other hand, there are no partnership members or project members. For others, JAMSTEC is working hard to gain more opportunities, for example, Institution of Geophysics National Central University of Taiwan submitted us LOI (letter of intent). There are several countries under negotiation such as China, Korea, India, Malaysia, Philippines, and Vietnam.

Chair G. Kimura called for a coffee break at 09:45 hrs.

Chair G. Kimura reconvened the group by 10:15 hrs. and moved to the next session, *Chikyu* operation update.

10. Chikyu Operation Update

(10:18 h.)
N. Eguchi reviewed IODP Exp. 348, NanTroSEIZE operation. First of all, he showed CDEX/JAMSTEC's appreciation to NSF for publication funding support of the entire expedition.

Exp. 348 aimed to resume Exp. 338 target and to deepen the same hole to 3,600-4,400 mbsf since Exp. 338 in 2012 was not that successful with some problems occurred on riser equipment by rough weather. Logging while drilling (LWD), collecting cuttings every 5 m depth, mud gas monitoring, and 30 m coring deep in the accretionary prism. In the end, JAMSTEC extended Exp. 348 by 10 more operation days due to operation delays caused by telescopic joint repair, typhoon evacuations, and two-side tracks. In addition to the operation summary (in terms of plan and reality) and the history of Site C0002 holes since Exp. 326 in 2010, he presented a successful SD-RCB* test coring completed during the expedition (Small diameter - rotary core barrel: developed by JAMSTEC to take cores in the deeper hole with a 8-1/2 inch drill bit).

N. Eguchi also explained that the TAT (technical advisory team) was established to provide technical advice for *Chikyu* operations. He informed everyone that the TAT chair, Kier Becker, would present the TAT activity updates and recommendations (Item #13). Besides that, Shigemi Naganawa would present updates and recommendations from *Chikyu* drilling safety review committee (Item #14). Based on those recommendations, various studies for geomechanics of the hole, advised by a private consulting company, would be presented and discussed during the next day.
Jamie Allan confirmed if the coring systems of SD-RCB and 6-inch coring system were wireline systems. N. Eguchi replied that both are wire line. The 6-inch system is provided by NOV, and the 8-½ inch SD-RCB was developed and tested by JAMSTEC. He also added there would be a talk the next day about reducing the pressure changes in the borehole.

In the response to a question given by H. Given, N. Eguchi answered that the hole was the deepest with riser that attempted by *Chikyu* in science. They cultivated a common understanding that it is a new/unknown territory and not so easy to achieve while facing unexpected difficulties, and that it is also challenging for financial contingency.

Regarding a question raised by H. Villinger about borehole stability and borehole breakout development based on LWD image data, there was a discussion with the following comments. Casey Moore advised that steeply dipping layers, which create problems, could

not be seen in LWD data since they are small scale. N. Eguchi mentioned that they had expected some because of being in an accretionary prism environment, but could not expect that much and that they would cause such problems. C. Moore asked N. Eguchi if he knew in what way to begin to control this problem. Ikuo Sawada shared some information, such as mud weight/ingredients, may help the situation and CDEX is seeking for other factors. N. Eguchi informed the group that the engineering consultant report will be posted later on the CIB website.

Chair G. Kimura mentioned that stress state analysis becomes a very important object for NanTroSEIZE project. The results from Exp. 348 will be available soon at the post cruise meeting. Even with only 30 m core recovery, we can study the prism, including strong deformation, and high temperature, which is a key to tell about the recovery formation. While the total amount of core recovered from the hole is very limited, there is enough to get some new good science from the NanTroSEIZE project.

11. Chikyu Budgetary Overview and Outline of Operation Schedule of JFY2014-2015

(10:59 h.)
Shinya Goto presented a budgetary overview and outline of *Chikyu* operations. JFY12 and JFY13 were the most successful years for *Chikyu* operation in terms of utilization ratio and well-balanced scientific and commercial drilling (69% for IODP cruise and 20% for non-IODP cruise). However, JFY14 and JFY15 will be financially difficult because regulatory shipyard maintenance and special BOP survey planned in mid-2015 (expected to cost more than 40M USD) as well as continuous budget cuts by Japanese government, etc.

Two potential IODP windows for JFY14 and JFY15 were proposed by S. Goto, (1) March-April 2015 and (2) second half of JFY15, however both are subject to funds availability. S. Goto added that the expedition held in the first window has to be riserless because *Chikyu's* subsea system will not be available until shipyard maintenance is completed in mid-2015.

Several discussions began on the costs of *Chikyu* operation and DOR (Drilling for Ocean Resources/commercial drilling).

In the response of a question from C. Moore about *Chikyu* day rates in case of DOR, S. Goto confirmed that "rig cost" includes the cost of crew, operation, repair and maintenance, insurance, etc., while "drilling cost" includes the cost of drilling equipment and supplies, such as well head, casing, cement, mud chemicals, fuel etc. as well as costs of drilling services such as wire line logging, LWD/MWD, supply boat service, watch boat service, helicopter services, and so on. C. Moore asked about possibility of hiking the day rate for DOR to secure funds for scientific drilling, but S. Goto replied it is a matter of negotiation, and not suitable for discussion in this meeting. He emphasized the importance of DOR to continue future scientific operations.

Regarding the shipyard maintenance planned for 2015, Susan Humphris asked why the BOP wouldn't be available for use. S. Goto explained it is impossible to skip it because it's regulatory and also because of the need to renew subsea system certificates. S. Kuramoto additionally mentioned that the BOP needs to update its certificate every five years, and the next year it's due for *Chikyu*. So, we plan to send it to Singapore in December.

Chair G. Kimura asked about the condition status beyond 2015, and S. Goto confirmed that it would be discussed in tomorrow afternoon. S. Kuramoto added that their business plan including DOR had just started negotiation, and if it would be successful, we are able to manage the fund for the future *Chikyu* operation till 2018.

K. Becker was curious about non-IODP expeditions. H. Hotta explained it was not allowed to utilize the fund for IODP expeditions because the fund had to be used only for the specific project authorized by Japanese government.

S. Hida explained that JAMSTEC is currently working with MEXT to secure the budget 40 M USD for four months shipyard maintenance but not firm yet. Mike Coffin suggested whether there is any possible way for science community to supports *Chikyu* Operation.
S. Kuramoto commented that CDEX/JAMSTEC must seek for industry partners to collaborate with, considering the *Chikyu* business model. However, some industries are just for a commercial while some industries want to have something collaborative with academia.

Chair G. Kimura asked Yuzuru Kimura from MEXT on how to improve such a critical budgetary condition. He explained that the government has designated IODP as a national project in the current Science and Technology Strategy Five-years Plan, which secures the basic cost of the program. In addition, Chair G. Kimura asked Y. Kimura how the arrangement is considered for the community. Y. Kimura answered that budgetary business (MEXT) and operation business (CDEX/JAMSTEC) is separated. MEXT cannot cover all of the cost on *Chikyu*, and especially if the operation was in any far location (e.g., outside of Japanese EEZ), good justification for government support is necessary, since *Chikyu* costs a lot and it may not be suitable to fund program basis, rather a project basis may be considered.

Thomas Janecek confirmed with S. Goto that the budget for shipyard maintenance is not secured. In a response to T. Janacek's question on an alternate plan, S. Goto mentioned that it is important to finish ship maintenance now to enable to conduct future operation. S. Kuramoto additionally stated that budget request to the Japanese government should be finalized by the end of 2014.

Chair G. Kimura called for a one and half hour lunch break at 11:30 hrs.

12. IODP Forum, other FB and Agency Activities

(13:00 h.)
N. Eguchi provided an update on the typhoon, and announced that the delay of the CIB meeting start tomorrow would be decided at 16:00 hrs. Chair G. Kimura moved to the IODP Forum report.

(13:01 h.) IODP Forum
K. Becker described the IODP Forum meeting held in Korea in June 2014. He made a brief statement about seven specific mandates. Agenda and minutes including details are posted in the iodp.org website. He explained about ICDP collaboration and encouraged onshore and offshore joint IODP/ICDP proposals during 2014-2016. AOG (assembly of governors) endorsed a joint ICDP-IODP evaluation. Key members are Pierre Francus (EC) and Flavio Anselmetti (SAG) as ICDP nominees, and, Jochen Erbacher (Forum), Ken Miller, and Sean Gulick (SEP) were recommended as IODP nominees.

In a response to D. Kroon's question, K. Becker answered that the CIB members will write a call for proposal. S. Humphris also shared her understanding that it is coordinated by Science Support Office (SSO) to go through each FB just to check wording if it is in the consistent way with the message that each FB has.

K. Becker continued talking about action items. A three-day meeting is planned in Canberra, Australia from 8-10 July 2015 to review science plans, plan education and outreach, and for meeting with the PMO.

For CIB purpose, there are good proposals to work with, K. Baker commented. No more questions and comments arose.

(13:21 h.) JRFB
S. Humphris reported on the two meetings JRFB had since the last CIB meeting. She pointed out that JRFB maintains the advisory panels (SEP, EPSP) that are being used both by EFB and CIB. She requested that the group provide feedback to JRFB on the usability of those panels by the next meeting, now that PEP is combined with SCP. By combining them, we are trying to avoid any disconnect between those two panels and provide a much more holistic reviews of the proposals. This will be available from both a scientific point of view and from a site survey readiness point of view. In this way, proponents will not get contradictory information from two different panels, and they will get one review letter to deal with both aspects and decrease the number of proposals sitting in the "holding bin" waiting for site survey data. The CIB is using SEP for evaluating proposals, and only uses EPSP for riserless drilling proposals.

CIB_ActionItem_0714-01: The CIB reviews JRFB panel activities and will give feedback to JRFB before its next meeting.

S. Humphris continued to introduce geographical scheduling in 2016: selecting a program that geographically takes the ship in a loop to the Western Indian Ocean, and back to the Eastern Indian Ocean in preparation for returning across the Pacific: Maldives Monsoon (820) in conjunction with Indian Peninsula Paleoclimate APL (849), Indian Ridge Moho (800), (this may be interest for CIB because it could be good experience for preparing actual deep crustal section drilling operation), South African Climate (SAFARI: 702) in conjunction with Aguilhas current density profile APL (845), and Sumatra Seismogenic Zone (837). In early FY2017, we include the Western Pacific Warm Pool (799). This sends a important message to the community that our intention is to keep the ship working in that area preparing to move across the Pacific. JRFB reiterates that, based on current and anticipated proposal pressure, the *JR* will follow a path from the western and southwestern Pacific Ocean, through the Southern Ocean, and into the Atlantic Ocean for opportunities for drilling there starting from 2018 and 2019 based on the proposal pressure in those areas.

S. Humphris said that the JRFB would like the CIB to decide whether to follow IODP Sample, Data and Obligations policy in this meeting, which covers all platforms and make consensus about the policy. It was informed that ECORD has already approved to follow it.

As of 1 October 2014, S. Humphris will be replaced by Richard Murray from Boston University; David Divins will also leave the JRFB and be replaced by Brad Clement. M. Coffin provided the additional information that Chris Yeats from CSRIO is no longer available, so the JRFB representative for ANZIC should be replaced. S. Humphris mentioned that JRFB decided to increase two US members from 1 Oct. 2014. Jeff Schuffert stated that USAC will nominate two additional US JRFB members.

(13:31 h.) ECORD FB
Karsten Gohl presented new activities, development, and decisions made at the EFB on 5-6 March 2014. Seven MSP proposals were considered for potential scheduling, and two of them which had already been scheduled in the previous year were withdrawn due to budget constraints and needed to be reconsidered at this meeting. Because of the requirements of the 2016 renewal, EFB will consider mid- to long-term strategy for MSP scheduling. MSP's priority is for shallow sea, ice-covered seas, shallow-penetration targets with maximum core recovery, drilling where *JR* and *Chikyu* are not an option, environmentally sensitive targets, and additionally, ECORD's priority is to drill in the Arctic and Antarctica. ECORD also needs a high profile/visibility drilling project to help extend the IODP program beyond 2018. Categorizing MSP proposals focuses on the themes and budgets for use in the next five years till 2018. The operation costs of MSP varies with the target, and current proposal pressure shows quite good coverage of scientific themes. Based on the current budget situation, we can only operate one expensive expedition in next 5 years and it must be an Arctic drilling in 2018 (with savings from the previous years). This means that for the remaining years we can only operate low cost expeditions. Atlantis Massif (758), with seabed drilling, is scheduled for the end of 2015. ESO is currently organizing this expedition using the RV *James Cook* in November-December next year. Two seabed drilling systems

are available at the moment (RD-II and MeBo). Although several other (less expensive) seabed drilling proposals (e.g. Antarctic Paleoclimate (813), Coralgal Banks (581), Hawaiian Drowned Reefs (716)) are on the list, we did not decide the 2016 and 2017 schedule at the meeting. One of the expensive proposals which was once scheduled and withdrawn was Chicxulub Crater (548) and we reconsidered it because we can not implement it with our current available budget. We asked proponents to submit an addendum to reduce the number of boreholes to one and still maintain the majority of the scientific objectives of the proposal. The June 2014 SEP reviewed this addendum and recommended that EFB can schedule this proposal as one 1,500 m hole project. So the EFB is now discussing the 2016 and 2017 schedule. K. Gohl claimed that since the discussion is ongoing, the following talk should be off the record.

H. Given asked if EFB wants to share the 2015 expedition schedule after having consensus. K. Gohl replied that EFB would like to do that for community members.

(13:43 h.) MEXT
Y. Kimura stated three main things as a Funding Agency of *Chikyu*. First, the person in charge has changed to Ms. Kiyoura as the department representative. Second, MEXT has a council of science technology consisting of external intellectuals (e.g. University professors or boarding members), and other experts. Since budgetary and operational issues are different, MEXT has to justify the yearly budget for drilling cost for each project. Currently, the NanTroSEIZE project reached 3,000 m depth, but still needs to drill additional 2,000 m deeper to reach the mega thrust. Initially, the budgetary secured project term was four years, but MEXT should discuss with the external council board if it is applicable to endorse the remaining operation to go for the ultra deep target within two fiscal years. Third, U.S. and Japan held the 14th joint working committee meeting for Science Technology Co-operation which agenda includes deep sea drilling on 7 July 2014.

(13:48 h.) NSF
J. Allan made a short report. One is that they signed a cooperative agreement with Texas A&M University to operate *JR* for the next five years with the possibility of renewal for another five years. Another good thing was that the Memorandum about *JR* operation is now at the State Department, sitting in the director's office and waiting for approval, which is expected soon. They need pre-funding for *JR* operations in the next few months. However, they are still waiting for a new division director for ocean sciences and hope they hear something soon.

C. Moore asked about the details of the logging contract. J. Allan answered that Texas A&M University will be responsible for all logging; however, it is now still in progress. An award was made to Columbia University and ODL to maintain the logging database.

(13:51 h.) ECORD
Gilbert Camoin presented ECORD activities and explained their budgetary situation. ECORD has 18 member countries; however Iceland will withdraw after FY14, and a

decision will be made for Spain, but hopefully they will stay onboard. Currently the minimum ECORD budget is about $19M USD, and the three major contributors are Germany, France, and the UK, which cover about 80% of the total budget. This is the minimum budget because we are negotiating with new comers, such as Luxembourg, Czech Republic, and Russia. Since the new program has flexibility, we allow having additional project-based cash and in-kind contributions. ECORD has MoUs with NSF and JAMSTEC concerning *JR* and *Chikyu* operations, and our annual contribution is $7M and $1M USD, respectively. Annual ESO operational cost is about $2.5M; $1M for science, education, outreach and ECORD management. Therefore, the annual budget for MSP operation cost is $7.5 M. ECORD also has potential funding of up to $10M USD for *Chikyu* expeditions in European/Canadian waters on a project basis. IODP partners may participate in ECORD's educational activities, such as MagellanPlus workshop, also may offer in-kind contributions, such as ship time, and drilling equipment towards the implementation of MSP operations in exchange for berths on MSP expeditions with ESO and EMA agreements.

ECORD is responsible for funding and implementing MSP operations for the IODP, and aims to fund and implement one MSP expedition per year on average with an annual budget of $7.5M USD. ECORD also seeks for additional funding sources on a project basis, for example, the Chicxulub expedition. For this expedition, the Mexican authorities are likely to provide additional funding for implementation, since this expedition is very important for the Mexican government. In the new IODP, MSP might include specifically outfitted polar vessels, jack-up rigs, geotechnical vessels, seafloor drilling systems, long-piston coring, and anchor barges as determined by scientific priorities and operational efficiency. Sea floor drills (MeBo-1 & 2 from MARUM and Rockdrill and Oriented drill from BGS) will become common tools in MSP operations as well as long piston coring (IPEV and IFREMER). ECORD is also developing various tools (borehole observatories, in situ pressure sampling, high temperature tools), which are not only for MSP expeditions, but also for other platforms.

G. Camoin also introduced the Distributed European Drilling Infrastructure (DEDI) as a new opportunity for funding, which focuses on scientific research into the sub seafloor and is designated to increase and optimize trans-national access to cutting-edge technologies and scientific services to the European science community (and IODP). DEDI will improve European collaboration in development and sharing of new, innovative technologies for coring, special sampling, downhole logging and long-term sub seafloor observations. Proposals will be submitted in early September. Expected funding would be €7-8M Euro, and major players for this program will be BGS, MARUM, U. of Leicester, U. of Montpellier, GFZ, ISOR, IFREMER, and IPEV. G. Camoin also mentioned that to achieve new scientific targets, technological development and networking, optimize use of research vessels and sampling capabilities, as well as developing cost-efficient MSP operation are important for ECORD. As mentioned by K. Becker in the IODP forum activities, ECORD also collaborates with ICDP. An ECORD/ICDP joint MagellanPlus workshop series are being considered and ECORD will contribute €50K Euro plus €10K Euro for amphibious proposals and ICDP will contribute €10K Euro for amphibious proposals.

ECORD outreach and executive meeting will be in September; the ECORD council will meet in October.

H. Villinger asked what kind of technology ECORD was planning to develop under DEDI. G. Camoin answered that there will be many things but the first thing is to develop logging tools for MeBo.

(14:05 h.) ANZIC
M. Coffin presented an update of ANZIC activities. Australia and New Zealand have a huge offshore area. ANZIC's main interest is to have better understanding about the surrounding seas to manage, so it's weighted on regional inspection rather than making boreholes. ANZIC consists of 15 Australian universities, two governmental institutions, three New Zealand universities, and two governmental agencies.
M. Coffin continued to explain ANZIC's keen interest in being involved in all *Chikyu* expeditions. ANZIC became a *Chikyu* associate member at 300 K USD per year. ANZIC is particularly interested in future *Chikyu* drilling in their region, e.g., Hikurangi slow-slip margin and Lord Howe Rise deep stratigraphic site (potential CPP). Regional IODP expeditions in which ANZIC was involved include Canterbury (Exp. 317), Wilkes land (Exp. 318), and the Great barrier reef (Exp. 325). ANZIC is also interested in *JR* operations (e.g., Indian Monsoon (Exp. 353), Bengal fan (Exp. 354) in 2015. For Exp. 355 and 356, ANZIC will select science participants and will provide a co-chief for Exp. 356. ANZIC will call for participants for 2016. ANZIC finished building a new research vessel funded by the Australian government and named *Investigator*, with site survey and giant piston core capabilities.

J. Allan asked how many streamers the *Investigator* has and who operates the ship. M. Coffin answered it has one 2,000 m streamer, and it will be operated by CSIRO on behalf of the entire Australian community. M. Coffin replied that generally ANZIC sends a ranked list by expertise, and one person is nominated.

13. Technical Advisory Team Report

(14:15 h.)
K. Becker briefly reported on CDEX Technical Advisory Team (TAT) activity. There are seven TAT members, including the chair, and he complimented CDEX on the excellent participation of personnel in this meeting. The first TAT was called only three weeks after the end of Exp. 348, with the meeting agenda focused on early planning for mantle drilling and review of the NanTroSEIZE Exp. 348 experience. Regarding "mantle drilling", the TAT made a consensus that recommended to create a PCT-equivalent group to focus on the technological development roadmap and risk assessment for full crustal penetration to the mantle. There were 10 specific issues in the consensus on NanTroSEIZE. K. Becker read out all the issues, and clearly stated action items for CDEX: enhanced LWD, use of oil-based drilling mud, re-drilling with optimum CSG design and/or directional drilling, etc.

Blade Energy Partners, Ltd. provided drilling fluid analysis and options for riser Hole C0002 to reach target depth, in light of the Exp. 348 postmortem analysis by insight GeoMechanics (iGM),

C. Moore asked if the TAT has ever communicated with the Exp. 348 science party. K. Becker replied that the TAT communicated with the co-chief, H. Tobin. N. Eguchi also commented that there were some inputs from one other co-chief too, regarding logging data and the coring/cuttings analysis. H. Villinger asked what if it was necessary and better to abandon and drill a new hole. N. Eguchi said he would show the options the following day (Item #17).

Chair G. Kimura suggested discussing the TAT recommendations and to reach some consensus.

Regarding TAT recommendations on creating a PCT-like team for the mantle project, C. Moore commented that engineering study is a good idea. H. Villinger also commented it would be helpful to compile existing technology and tended to agree with the idea of creating a team, but questioned who would pay for the travel. N. Eguchi explained that it should not be a PCT, by definition, but CDEX would pay once approved by JAMSTEC. K. Becker mentioned that the TAT recommendation is not about creating a big group; there could be two or three scientists, so no real worries about the traveling budget. S. Kuramoto mentioned that the member numbers could be managed by CDEX. Chair G. Kimura also confirmed that CDEX could manage to support traveling cost.

Dick Kroon expressed some concerns, since the proponents of M2M proposal (805) has not shown any clear idea of where to drill yet, so it might be too early to create such a group; it may be better wait for SEP's approval of the proposal. S. Kuramoto shared his understanding that the TAT recommendation is just a beginning of mantle drilling project and small group should be good. There will be more people involved, which are not only CDEX but also other entities such as government agencies and industries in the future.

D. Kroon said that it is helpful to know what proponents are achieving to revise the proposal (e.g., SSDB and 3-seismic data, such results will be helpful). S. Humphris mentioned that IODP-MI already did an initial engineering feasibility study.
H. Villinger said that proponents should not be included in this group, it should independently scope technical issues for each scenario. S. Humphris commented that all potential sites are the same, to drill it driven by local environmental issues, so my view is to move forward to set up this group and find out potential challenges before determining scientific objectives. C. Moore asked if the CIB endorses supporting the TAT recommendation. The CIB members agreed.

J. Allan commented that it is good to go beyond for the next stage and where to drill and operate has to be decided by any proposals. N. Eguchi commented that the CIB can agree to have the TAT for going forward. H. Kawahata agreed. Chair G. Kimura asked if H.

Villinger could write the consensus statement. K. Becker presented for opinion that H. Villinger will write a draft and send it to K. Becker.

Regarding the TAT recommendations for NanTroSEIZE, C. Moore concluded that the CIB can support TAT for ongoing efforts to accomplish an engineering study on Holes C0002F/N/P on deepening the hole and suggested N. Eguchi to wrap up the consensus. The CIB members were all agreed.

CIB_Consensus_0714-05: To support existing proposals for full crustal penetration to the mantle, the CIB recommends the formation of a Working Group, which focuses on:

- compile and assess existing engineering studies
- specify technological development needed for a drill hole to the mantle depending on different scenarios in discussion by the scientific community
- assess feasibility of technological developments
- assess potential risks
- assess financial implications

The group will consist of xx proponents, xx CDEX representative and xx members of TAT. Travel costs are covered by CDEX.
The Working Group will meet for the first time in 2014 and report to CIB in the next CIB meeting.

CIB_Consensus_0714-06: The CIB supported the TAT recommendation regarding technical aspect of the future NanTroSEIZE deep riser drilling operation at C0002 site and acknowledged CDEX/JAMSTEC's quick action following the recommendation.

Chair G. Kimura called for a coffee break at 14:47 hrs.

14. Chikyu Drilling Safety Review Committee Report

(15:32 h.)
S. Naganawa explained the safety recommendations for future NanTroSEIZE expedition, based on the Chikyu Drilling Safety Review Committee's report. The 1st meeting was held on 28 March 2014. In the meeting the committee reviewed the operation, estimated the cause of drilling problems, and made some recommendations. The primary causes were borehole instability with time dependent breakout behavior in the complex structured Nankai Accretionary prism that generated casing-stuck, string-stuck, assembly pack-off, and liner packer miss-set. S. Naganawa summarized six recommendations from the committee: 1) Casing program should be re-considered, including contingency casing program, and using 16 inch casing if a new hole is planned to be drilled. 2) Mud system; keep maximum allowable mud weight to minimize formation breakouts and consider more effective sealing additives to minimize mud filter loss invasion. Use high viscosity mud for good hole cleaning and borehole stability, and use of a synthetic-based mud might be considered. 3) Real-time downhole monitoring and prompt action; making the most of early and accurate detection of occurrence and status of borehole breakouts by using real-time

data for prompt action is important. Previous studies of pore pressure, fracture pressure and breakout pressure predictions should be revised using leak-off tests and LWD data. 4) Risk assessment; sufficient risk assessment of downhole problems should be made prior to drilling and it should be revised as needed during the actual drilling operation. 5) Management issue; CDEX should fully conduct possible in-house engineering studies and should have consistent policy. Establishing a strong cooperative relationship with service companies is important. 6) Feasibility of new technologies for contingencies; expandable casing and a dual gradient drilling system were recommended.

15. *JR* Advisory Panels Report/Proposal Overview

(15:49 h.) Support Office Activities
H. Given mentioned the status of the IODP Science Support Office (SSO). SSO started last July, including transition period, to resume some functions of the old IODP-MI; it officially started from 1 October 2013 (FY14) with support from NSF and *JR* partners. The budget is a little over $900K USD/year, mostly for the staff (FTEs). Four main tasks are to: 1) support JRFB, 2) manage proposal submission and review management, 3) manage SSDB, and 4) manage the iodp.org website. Proposal submission is not affected by program change. N. Eguchi distributed to the CIB members the access information to the proposal database (https://ssdb.iodp.org/CIB1407) including user name and password. There are 18 active IODP proposals planning to use *Chikyu*; nine proposals are on the CIB waiting list. H. Given continued to explain that there were new three proposals coming in, but keeping confidentiality is important at this very sensitive stage.

She also reminded the CIB that it needs to check the draft call for proposals, which the JRFB says is still under their consideration. It plans to be open to the public two months prior to the next proposal deadline, 1 October 2014. H. Villinger suggested to remove "more" in the second paragraph, and just to say "operation by *Chikyu*". H. Given agreed to apply that change.

CIB_Action Item_0714-02: The CIB review "Call for Proposal" wording presented by SSO and make appropriate changes.

H. Given mentioned that the iodp.org website is kept up to date for the community and taken care of by SSO. However, the website focuses on facilitating science proposals, unlike the IODP-MI vision for wider purposes, including public relations. If the CIB has any feedback on the website (weather the information is enough), please inform the SSO.

Regarding the bore hole database, H. Given asked who within CDEX she can discuss the frequency of updates, after which she explained the database is currently up to December 2012 (http://www.iodp.org/borehole-map). H. Given continued to describe SSO tasks completed, or will be completed, such as fixing the pdf upload issue for proposal submission, and updating PDB and web portal to be more user friendly. She also gave an

overview of including 107 active proposal diagrams categorized by scientific themes, target oceans, review stages, proponents member affiliation, and drilling platforms.

H. Villinger pointed out on the website, program information Principle of scientific investigation text might be confusing for people not familiar with IODP, so suggested that some words be eliminated for clarity (e.g., removing SAS which is no longer available). H. Given and S. Humphris completely agreed.

Chair G. Kimura moved back to the draft call for proposals and asked if the CIB members have any comments on the draft. The CIB members confirmed to remove the term, “more” from the second paragraph, “*Chikyu*” will be a project base. The rest will stay as it is.

Y. Kimura suggested TAT critical risk assessment should be mentioned/added as a part of preparation for decision making to compete with other candidate proposals. C. Moore pointed out that his concerned point is included in the action item 1/3 in TAT recommendation. Y. Kimura rephrased that CDEX should consider more about risk assessment. S. Kuramoto said that the group needs to take some time to fully understand the management issue presented by Naganawa (Item #14).

Chair G. Kimura confirmed that the question/suggestion by Y. Kimura will be included in the minutes.

(16:18 h.) SEP
D. Kroon presented the SEP update and reviewed the status of 12 proposals, including proposed sites and objectives. D. Kroon mentioned that the SEP is still waiting for the site survey data for Mariana Convergent Margin (505). CRISP (537) and IBM-4 (698) are both already *Chikyu* projects. He continued that NanTroSEIZE Drilling and Observatory Phase 3 (603) is the most scientifically interesting project among SEP members. East Asia Margin (618) is still under discussion, and CDEX has been asked to determine whether this project is feasible for D/V *Chikyu* or not. D. Kroon suggested contacting Peter Clift, in case CDEX wants this proposal for a *Chikyu* project. Hikurangi (781B) has been forwarded to the CIB but site survey data are not yet uploaded to SSDB. KAP (782) is still in the Pre-proposal stage, and no data has been uploaded to SSDB. Indian Ridge Moho (800) is partially scheduled by JRFB, but considering the primary target depth is about 6 km below sea floor, it will need two expeditions, if not three. Mohole to Mantle (805) is still in the stage of site selection. JTRACK (835) is invited to submit a full proposal by SEP, CIB reviewed its workshop proposal and endorsed holding a workshop to develop a full proposal.

N. Eguchi reminded the group that there would be a JTRACK (835) workshop report the next day. D. Kroon continues to review the proposal status. DREAM multi-phase drilling project (857-MDP) and one of its daughter proposal (857A-Pre) has been submitted and was reviewed by the SEP at its June 2014 meeting.

D. Kroon said that he would like to pass the proposal to the CIB for discussion. D. Kroon continued to review the proposal status and commented that proving connections between deep Earth and surface (857) would be a possible joint ICDP and IODP work plan.

H. Given asked how long it takes when they estimate and how many days required for targeting the site Umbrella proposal (857). D. Kroon said that it takes two months in most cases. Chair G. Kimura reminded the group that there will be a discussion about the long-term plans on Day 2 (Item #17).

The last proposal D. Kroon presented was the Nankai Trough Temperature Limit (865), which was submitted as a full proposal and is currently forwarded to external review.

(16:50 h.) EPSP
Takeshi Tsuji presented the EPSP activities. The 15th meeting of EPSP was held at College Station in May 2014. At the meeting, only riserless drilling sites for *JR* and MSP expeditions were evaluated. There were new members in EPSP, including a scientist from Brazil. There were 10 proposals to evaluate site locations with seismic data at the meeting.

S. Kuramoto asked why the Hikurangi proposal (781) was recommended to relocate many sites. T. Tsuji answered that the EPSP found some faults in the seismic profile/data, so that the EPSP chair tried to shift the sites to new locations, which are very close to the original sites.

Chair G. Kimura said that the agenda of the day was finished, but there was still time left before the reception began at 17:30 hrs. N. Eguchi announced that the next day would have a delayed starting time of about 30 minutes, just as a precaution. However, he added, the meeting room would open at 08:00 hrs.

(17:30 h.)
Reception

Day-2 **Friday, 11 July 2014**

Day 2 meeting start was delayed for 30 minutes due to a typhoon warning.

16. PCT Activities (originally Item #17.)

(09:30 h.) NanTroSEIZE

Chair G. Kimura retuned to agenda item #17 (from the original agenda). N. Eguchi and Moe Kyaw Thu gave two PCT updates. N. Eguchi introduced the new NanTroSEIZE PCT*, which consists of almost the same members as the previous PMT. The members are scientists familiar with the NanTroSEIZE project, as co-chief scientists or through past PMT experience. Based on the TAT recommendations presented by K. Becker (Item #13), the PCT had several post Exp. 348 analyses. The first meeting is scheduled for 30 July 2014 in

conjunction with the AOGS in Sapporo, Japan, and it plans to cover the geomechanics studies, mud system analysis, and core sample test explained by David Castillo (TAT), and remaining targets, i.e., the riserless observatories and Site C0002 riser extension. No questions arose.

* NanTroSEIZE PCT member: Harold Tobin (Chief project scientist), Gaku Kimura (Chief project scientist), Demian Saffer, Michael Strasser, Kyuichi Kanagawa, Greg Moore, Yasuhiro Yamada, Masataka Kinoshita, Mike Underwood, Ikuo Sawada, Nobuhisa Eguchi, Sean Toczko, and Masanori Kyo.

N. Eguchi moved to report on CRISP PCT activities. He introduced the only four scientists** currently in the PCT. The meeting was held in December 2013 during the AGU meeting, and C. Moore attended as the CIB liaison.

**CRISP PCT member: César Ranero, Kotaro Ujiie, Susan Bilek, Christian Hensen, Ikuo Sawada, Nobuhisa Eguchi, Sean Toczko, and Masanori Kyo.

H. Villinger asked why $15M USD is estimated for transit costs from Japan to the CRISP site because *Chikyu* does not need to be fully staffed. N. Eguchi explained that this is a rough estimation, including fuel and basic costs, considering the drilling and ship crew being already on board for preparations. C. Moore also commented that CDEX cannot transfer off staff working on *Chikyu* during transit.

N. Eguchi reported that the proposed primary site for CRISP is too shallow (700 m water depth) for riser operation and to secure the safety operation, CDEX would like to have 1,000 m water depth (in the *Chikyu* specification catalog, the minimum water depth for riser is 500 m). With 3D seismic data, potential riser operation site were discussed in Austin, TX last June.

H. Kawahata asked how many years are required to the operation. N. Eguchi answered maybe two years. Y. Kimura added that there should be one way for going and another for coming back (transit).

K. Moe presented the CRISP site selection meeting update, including five potential riser sites along with their priorities. The primary site is the same location as U1413 (water depth is 543 m) and the alternates sites located in 570 – 960 m water depth. He also presented the current status of preparation tasks, both completed (2D seismic, bathymetry, backscatter, sub bottom profiler, geotechnical coring analysis) and remaining (metocean current studies, 3D seismic interpretation and geological prognosis, and hazard-assessment). He also described *Chikyu's* operational criteria (depth limitation, sea floor condition – e.g., water depth away from submarine cable, formation characteristics for riser, bottom hole static temp), and the candidate riser site – primary U1413, Alt 1-4, target area bathymetry (TD 5,000 m for primary, alternate site #1:TD 4,800 m, site #2: TD 4,400 m, site #3 3,840 m, site #4 TD 4,374m). Seismically alternate sites are the same formation as the primary site.

H. Villinger asked if they have to move the site to the deeper water depth site. K. Moe replied that CDEX would prefer to move the site, but have to first check the sea environmental data. H. Given asked if the target depth is still the seismogenic area in

alternate #3. K. Moe answered it is difficult to answer but they are seismically the same. C. Moore mentioned that there was an earthquake in the area a few years ago, the focus of the earthquake is down deep but there might be some interesting phenomenon going on and potential package to slip. H. Villinger asked if they could achieve the science target still if water depth was changed to 1,000m. K. Moe answered that the proponents have ensured that all alternate sites fulfill the science objectives.

T. Tsuji asked if seismic velocities could be estimated though the depth profile although it might be very difficult to estimate it in deeper regions. K. Moe replied that they have kept working on the data processing, the proponent has said there should not be much difference. He also mentioned they were happy with the seismic data because the quality was much better than for any other sites in the past. T. Tsuji had another question about the strong reflector in the lower section where the plate boundary exists. K. Moe agreed T. Tsuji that was one reason; a few alternate LWD sites would get you to what you want to see. C. Moore said that the whole margin was considered to be erosional, and the contrast was clearly as strong as that seen in NanTroSEIZE.

Chair G. Kimura asked if there were any strong ocean currents like the Kuroshio in the area. K. Aoike answered that there is generally no strong current. K. Moe added that during the 3D survey, sea currents reached up to 3 knots. He explained that it was unlike Kuroshio, but that 2-3 knot currents come from time to time and that is why they need to check all the seismic cruise data. Chair G. Kimura suggested that PCT activities continue.

(09:58 h.) IBM

Chair G. Kimura reported that the CIB had discussed, on an email-basis, to establish the IBM PCT but could not reach a consensus, so the CIB needed to discuss and establish the IBM PCT at this meeting. There were 11 candidates, and H. Villinger suggested voting to select the PCT members. H. Villinger had a question about the necessary number of core PCT members, and in the response, N. Eguchi said four is a good number. Chair G. Kimura concluded that Yoshiyuki Tatsumi, Syuichi Kodaira, Richard Arculus, and Susanne Straub were selected as core members of the IBM PCT. N. Eguchi added that the CDEX members would be the same as for other PCTs: Masanori Kyo, Sean Toczko, Ikuo Sawada, and Nobuhisa Eguchi. He also confirmed he will put the names in the consensus list so that the CIB can review them.

CIB_Consensus_0714-07: The CIB established IBM Project Coordination Team. *The CIB recommends Yoshi Tatsumi (Chief Project Scientist; CPS), Shuichi Kodaira (CPS), Richard Arculus (member), Susanne Straub (member) and appropriate CDEX staff for the team members.*

17. Long-term Implementation Plan (originally Item #18.)

(10:08 h.) NanTroSEIZE Operation (Site C0002)

Chair G. Kimura temporally assigned the Chair role to C. Moore due to COI (a conflict of interest).

N. Eguchi presented the future Exp. 348 drilling plan, based on the post-drilling studies reported (Item #13). H. Villinger asked what kind of materials are used in Solid expandable technology (SET). N. Eguchi replied that it is steel, but thinner, so that it can expand and maintain the same size as the casing above.

N. Eguchi explained another new system, the continuous circulation system (CCS). While connecting drill pipes, circulation usually stops and pressure/borehole condition stops/changes. If the non-stop drilling technology is used, two ways to circulate the mud are available. This means the mud is continuously circulated to keep cleaning the hole, and no pressure changes occur while connecting pipes.

C. Moore asked whether these new systems (SET and CCS) are commonly used technology. N. Eguchi replied that they are not brand-new technologies. He explained briefly that the company has provided SET for 1,400 wells and 95% of them were successfully installed. For CCS, CDEX plans to use this system for cooling the borehole during the JAMSTEC Okinawa riserless cruise (already set up). C. Moore asked if JAMSTEC owns CCS. N. Eguchi answered no, CDEX will rent one. C. Moore asked if presumably the system would apply to complete either the by-pass hole or drill a new hole. N. Eguchi replied yes, either one could be used.

One other new technology called DrillScene® Replay (Sekal Drilling Simulator) was also recommended by TAT. N. Eguchi continued to show three drilling scenario options out of more than 10 options deepening the Site C0002 hole with the assumptions of using these new technologies.

- **Scenario A**: sidetracking from the 11-3/4 inch liner shoe depth. Max. 4 casing strings – w/o the expandable, only allows for two more casing strings. With expandable casing, a maximum of four casing strings can be used to reach 4,700 mbsf; the final hole size at the mega-splay (plate boundary) fault will be 6 inch.
- **Scenario B**: sidetracking from the 13-3/8 inch casing shoe depth. Maximum of five casing strings (including three expandable casing strings) can be used to reach 4,700 mbsf; final hole size at the mega-splay (plate boundary) fault will be 6 inch.
- **Scenario C**: opening a new hole to reach the mega-splay (plate boundary) fault. Including two expandable casing strings, *Chikyu* can use eight casing strings to reach 4,700 mbsf with a final hole size of 8-1/2 inch.

H. Villinger asked what it means to end up with 6-inch hole. N. Eguchi answered that means engineers need to change the design of set up riser observatory. M. Kyo added that observatory scientists do not have a 6-inch hole observatory system yet. At least 7-1/2 inch is necessary to install the strainmeter, so the instruments need to be downsized.

N. Eguchi commented that comparing these three options, the final hole size would be 6 inch (A), 6 inch (B), 8-1/2 inch (C), respectively. Smaller number of casings means higher risk; but larger number of casings requires more operation days. Options B&C need two cruises (B: 260 days & 293 days, C: 319 & 335 days), which increase costs.

H. Villinger asked if an observatory can be set in a 6-inch hole, and commented that option 3 is the most expensive one. M. Kyo answered there are no solutions at present; therefore, observatory scientists have to continue to search for existing tools or develop their own tools. C. Moore commented that the CIB should not make a decision on which case since it is mostly depending on economics. N. Eguchi commented that CDEX would make continuous efforts to find the most appropriate option, and asked if the CIB has any recommendations. C. Moore concluded that the CIB supports CDEX and an economic-based decision.

H. Villinger asked if option A (blank part) looks already kinked and if redesigning of observatory is also up to the economic situation. N. Eguchi replied that the diagram is very schematic, so the actual casing string is not as severe as described here. M. Kyo added that if observatory scientists would like to apply the same observatory system configuration as the one already installed, they need to shrink the sensors' size. Components CDEX can install would be very limited (only pressure sensor), if using the same sensors currently installed, and observatory scientists and CDEX need to consider the environmental temperatures at the bottom of the hole (e.g., 180°C).

C. Moore asked if it is true that if you have a pipe going into the fault zone, put your instruments further up. M. Kyo said that it is very easy to install a quarter line with CORK (Circulation Obviation Retrofit Kit), but at least pressure measurement would be installed in the fault zone.

T. Janecek asked if the plan is realistic (or a new operation model) even if the options 2&3 have two cruises. S. Kuramoto replied that so far budgetary situation only allow us five months riser expedition in a year. Probably two cruises can be applicable to the situation. Considering contingency, CDEX needs detailed studies since this is still just a rough estimate. N. Eguchi added that if CDEX divides operations into two years (five months for each), this plan would be more realistic. T. Janecek pointed out that 319 days is almost 10 months. H. Villinger commented that option C would mean three cruises; there would be no budget to operate in 2016/2017. N. Eguchi replied that this will be the next agenda item.

(10:32 h.) MEXT Deep Sea Drilling Committee Report
Y. Kimura briefly described Japan's National Council for Science and Technology vision of the NanTroSEIZE project. In principle, he mentioned that the committee endorses the science of the NanTroSEIZE project, but it all depends on budget allocation and future technology development. He also noted that IODP and CDEX cannot continue this project indefinitely. If study shows that the project requires more than three years to complete,

IODP and CDEX may have to wait for further future technical developments. Sometimes the NanTroSEIZE project needs cutting edge technology. For now, MEXT suggests that based on this committee's vision, the maximum operation period for riser operations should be two years. He also mentioned that the implementation strategy should be set as target oriented (meaning reaching the mega-splay (plate boundary) fault, and log and sample it). Alternate Chair C. Moore confirmed that MEXT understands the importance of NanTroSEIZE project and that CDEX should do their work to move forward. H. Villinger asked if the project starts in 2016 or 2017. Y. Kimura replied it depends on CDEX preparations and the operational budget allocation in JAMSTEC.

CIB_Consensus_0714-08: The CIB supported the Japan's National Council for Science and Technology vision of completion of C0002 riser deep hole within two fiscal years term. Also the CIB understood MEXT's idea of the priority of implementing strategies will be set on as target oriented.

(10:40 h.) Future *Chikyu* Operation

The order of an agenda item, "The Future *Chikyu* Operation" (Item #18) changed from the original agenda. S. Kuramoto presented the *Chikyu* funding structure for IODP and operation criteria and followed by the *Chikyu* IODP long-term operation plan based on that budget.

Chikyu's budget break-downs are: government (fixed rig cost=crew, fuel etc.), project funds from *Chikyu* project members, scientific foundation, and industry, *Chikyu* member fee, DOR from commercial drilling, and donation (variable drilling cost=third party, logging tools etc.).

Chikyu IODP long-term planning is as below:

- JFY2014: Aug. to Feb. for commercial drilling (under negotiation), Feb. to Mar. for non-IODP scientific drilling or IODP riserless expedition (only Mar.)
- JFY2015: Apr. for IODP riserless expedition (continued from JFY2014 Mar.), May. for non-IODP cruise, R&M (dry dock; ship inspection, BOP survey, riser repair), commercial drilling (Nov. to Mar.) or IODP riserless (Nov. to Mar.).
- JFY2016: May. for non-IODP scientific drilling, Sep. to Feb for commercial drilling (just begun negotiating), Nov. to March for IODP riser expedition.
- JFY2017: Apr. to Aug. for IODP riser expedition, Nov. to Jan. for commercial drilling, Mar. for non-IODP scientific drilling.
- JFY2018: May, for non-IODP cruise.

CDEX/JAMSTEC currently asked the government for next fiscal year's budget, and the response is expected by the end of 2014.

C. Moore clarified that JFY15 would be devoted to shipyard work, and asked if any program for Site C0002 (NanTroSEIZE project) would need to come to JFY16 and 17. S. Humphris

clarified where the riserless drilling is going to be in JFY14-15. N. Eguchi replied that it would be discussed next. S. Kuramoto also responded to S. Humphris that potential expeditions would include NanTroSEIZE riserless Observatory (603) or Mariana Convergent Margin (505).

G. Camoin pointed out that the commercial drilling in FY16 overwraps with IODP schedule. S. Kuramoto replied that could be moved or carried out separately. K. Gohl asked if there are no projects in JFY18. S. Kuramoto answered that the potential is for a riser operation.

S. Kuramoto responded to Y. Kawamura that CDEX/JAMSTEC negotiated with the fishery union and received permission from them for the April to August riser window in JFY17 (NanTroSEIZE).

H. Villinger suggested the CIB to make a list of prioritizations, considering the uncertain funding situation, in order to see if it would be able to finish off deepening the Site C0002 hole in JFY16-17, even with a riserless operation in the end of JFY14 plus a riserless operation in JFY15. C. Moore asked the group if there are no more questions about S. Kuramoto's presentation.

T. Janecek asked what strategy the CIB would apply for the remaining 14 proposals and for coming proposals over the next ten years. J. Allan followed up with T. Janecek and commented that it might be good to have a message for the science community, explaining the situation and the *Chikyu* operation plan. C. Moore asked what lessons were learned and what was done when the *JR* was under renovation and in maintenance period in response to T. Janecek and J. Allan. J. Allan replied that there was a significant problem of reviewing proposals during that period, where reality was not considered, and increasing the number of proposals was not possible.

Alternate Chair C. Moore called to take a 15 minutes short break before making a list of prioritization at 11:05 hrs.

(11:23 h.) *Chikyu* Project Criteria
Alternate Chair C. Moore moved on to the next agenda item, "*Chikyu* Project Criteria".

S. Kuramoto presented a proposal summary and long-term planning. Possible options for March in JFY14 to April in JFY15 would be the Mariana convergent margin (505) or the NanTroSEIZE riserless observatory (603) to replace the Site C0010 observatory (GeniusPlug) with an LTBMS (Long Term Borehole Monitoring System). JFY2015 options after dry dock would be an IODP riserless cruise: NanTroSEIZE riserless observatory (603) to install a new observatory at Site C0006/C0007 in a new hole or the Mariana convergent margin (505). JFY16 options would be the C0002 riser at NanTroSEIZE (603) (TD 5,200 mbsf; 2,000 mbsf further penetration needed).

C. Moore clarified that days covering the riser option would be five months in 2016-2017.

S. Humphris noted that the current riserless proposal for the Mariana Convergent Margin (505) does not meet the criteria. She continued that this expedition cannot be done within the March 2015 window, since the plan has changed (involving CORK light replacements), their site survey data has not fully uploaded to site survey data bank (SSDB), and they need to prepare the CORK.

C. Moore noted that the alternative NanTroSEIZE (603) is ready to go (overdue). H. Villinger pointed out that Mariana convergent margin (505) could be done in later 2015 if the CIB now gives them a deadline to upload the site survey data. CORK light is not required that much. S. Humphris pointed out that they do not have funds for the CORK yet. C. Moore asked if the proponent would have a benefit from the cruise. S. Humphris replied they have a very complex cruise and the timeline is too short.

D. Kroon noted that the Nankai Trough sub seafloor temperature limit (865) was sent out for external review now, and it might be ready soon because it is not so complex. H. Villinger pointed out that the CIB does not have any reviews yet.

T. Janecek replied to C. Moore and he suggested the CIB to let the community know at least the ship track so that the community knows what they can do with *Chikyu*. C. Moore stated that CDEX/JAMSTEC has the responsibility to inform the community so that they are not going to write proposal that requires a three year expedition.

Y. Kimura added that the cost structure and *Chikyu* business model is a combination with commercial drilling. He restated that the committee agreed on two years straight IODP riser operation, if the 1st year progress is not satisfied, there will be no operation automatically in the 2nd year, and need serious review of the first year operation. On the other hand, if the 2nd year operation does not reach the target but comes very close, there could be an extension for completion in the 3rd year consecutively. C. Moore concluded that the schedule is idealized but this is the best that the CIB/CDEX can do right now.

Discussion continued on filling the riserless option window in JFY15. H. Villinger asked if the CIB can say riserless observatory (603) at the end of JFY14-15 is the only window that the CIB can get started for sure.

CIB_Consensus_0714-09: The CIB recommended “NanTroSEIZE riserless observatory” operation as JFY 2014/2015 riserless expedition option.

H. Villinger asked if the CIB should consent to inform the community of signals about the potential of future *Chikyu* activities, at least on the website; C. Moore agreed. S. Humphris noted that it includes the call for *Chikyu’s* next operation, which is going to be sent out in three weeks.

CIB_ActionItem_0714-03: The following message should be provided to the community.

Drilling equipment and Ship Maintenance:
In view of the coming dry dock and the overhaul of the blowout preventer of the *Chikyu*, riser drilling will be restricted in 2014 and unlikely to happen in 2015. Riser drilling is scheduled to resume in 2016 and 2017 at Site C0002 of NanTroSEIZE. Proponents hoping to utilize *Chikyu* should be aware that the above issues may delay operations.

J. Schuffert asked if there is any timeline for staffing. N. Eguchi replied that the NanTroSEIZE PCT started discussion about expedition staffing already, but it would be more like engineering expedition and most likely not require regular size of the science party. J. Schuffert confirmed that CDEX/JAMSTEC will accept applications from PMOs for this riserless expedition.

(11:47 h.)
S. Kuramoto continued to explain the *Chikyu* CPP Criteria.
D. Kroon said that the Mediterranean DREAM-GOLD (857) project has the potential for a CPP. G. Camoin added that it plans one hole that would take five months.

S. Kuramoto again explained the sources of money contributions to *Chikyu*. C. Moore commented that the diagram shown by S. Kuramoto is important for the riser proponents to understand the new reality. Y. Kawamura asked if this applies to riserless operations for clarification. S. Kuramoto replied that the cost of a riserless operation is much smaller than a riser operation, so that CDEX will most likely conduct the operation without any outside funding. Y. Kawamura asked if CDEX also covers the transit cost ($6M USD/month). S. Kuramoto said CDEX secures the costs, including transit, if a project is run.

Alternate Chair C. Moore retuned the chair role to G. Kimura at 11:55 hrs.

Chair G. Kimura summarized the remaining issues: Hikurangi (781), Mediterranean DREAM-GOLD (857) and asked the group to discuss how the CIB should handle them. He continued to say if the CIB defines the Hikurangi (781) as a *Chikyu* project, the CIB can set up a PCT. C. Moore commented, with a sense of endorsement, that the CIB needs to look at the transit costs. J. Allan noted that the average cost for a ship the size of *Chikyu* would be $530K USD/day. He continued to comment that a semi-submersible vessel could even drill that deep, and said every proposal needs to look at which vessel is appropriate. A drill ship might not be suitable, because it will be very expensive.

Chair G. Kimura asked the CIB members if the CIB should establish a PCT for Hikurangi (781). H. Villinger replied that the CIB should wait until next year, at least, since it would be four years from now if it is implemented. D. Divins pointed out that the CIB already has three PCTs and asked how they would be prioritized. H. Villinger agreed and said that we have to be realistic, especially since the NanTroSEIZE project is not finished yet. C. Moore said it is up to CDEX and how much they can spend their resources on for its preparation. Chair G. Kimura said that the CIB can postpone the establishment of the Hikurangi PCT.

K. Moe commented that there are no funds for a Hikurangi (781) site survey. T. Janecek also replied that a 3D site survey proposal review has been done at NSF, with no further comments now.

N. Eguchi suggested that the CIB prioritization of the projects can be started in the future, although the NanTroSEIZE project is still ongoing. K. Becker pointed out that the establishment of a PCT after a prioritization of the projects would be contradictory to the forming rules, which, according to the "Chikyu Expedition Process", forms the PCT first and then a prioritization discussion takes place. H. Kawahata commented that *Chikyu* requires much money, a lot of management including logistics, and getting permission from other countries. Setting up PCT for Hikurangi (857) preparation would be better if it is earlier. Chair G. Kimura concluded that the CIB will postpone the designation of a *Chikyu* project and the Hikurangi (781) PCT formation to next year.

Chair G. Kimura said that NSF is under review of 3D site survey data acquisition proposal for Hikurangi, so the next would be going to the Mediterranean DREAM-GOLD (857). G. Camoin commented we have to wait what we receive from the review. D. Kroon suggested that the CIB has to first endorse the pre-proposal to be identified as a *Chikyu* project. N. Eguchi pointed out that the CIB workshop is for development of a full proposal. D. Kroon replied that it is up to the CIB discussion. G. Camoin reminded everyone that scientists of this proposal have had at least three workshops already. D. Kroon noted that full proposals come straight to SEP, but it would be great if there are any guides from the CIB regarding expectations for the proponents. S. Humphris pointed out that to encourage people to write a full proposal, but the chance of *Chikyu* drilling in the near future is low. The CIB has to be really careful when sending a message to the proponent. If the CIB endorses them to write full proposal, the implication is that the CIB is going to consider it as a *Chikyu* project, while the financial reality may be undoable. K. Gohl supported S. Humphris, and said that at the workshop, there is no need to talk about science issues but other options (e.g., finding the best possible platform) would be the issues to discuss. If the *Chikyu* plan does not work, what they should do is go for a CPP or MSP. J. Allan said that there are things that commercial operators can (just take samples) and cannot do. D. Kroon commented that it is not impossible to find substantial funding.

S. Hida explained the comprehensive process toward *Chikyu* expedition. According to the process, the Mediterranean DREAM-GOLD (857) should go to the CIB for recommendation and encouragement after they discussing financial and technical feasibilities. Also, the CIB can invite a proposal for a workshop to develop a full proposal. H. Villinger commented that he has not seen any proposal and SEP review yet, so it is too early to give any comments on the proposal. D. Kroon replied that it is SEP's decision (they had three workshops so far). Chair G. Kimura agreed with H. Villinger and said that the CIB should not recommend anything yet, and any workshop should be postponed to next year.

D. Kroon pointed out that the proponents need some signals if their project is possible since this is their second proposal submission. N. Eguchi suggested that the CIB members read

the proposals and discuss. D. Kroon mentioned that the response letter has not been sent out yet; they need a statement letter from the CIB. S. Humphris pointed out that the SEP cannot ask them just to submit full proposal because pre-proposal has to come through the CIB for *Chikyu* proposal. She also pointed out a couple options on what to tell the proponents after receiving the CIB's statement. Right now they cannot do anything if no feedback comes from the CIB. H. Villinger suggested having the workshop reports electronically for review, which would take the next three months, until the CIB finalizes comments about previous workshops as well on as the pre proposal. He also suggested that the message to the group at this moment should be that the CIB will look into the proposal. G. Camoin agreed and confirmed he will forward the workshop report to the CIB members. Chair G. Kimura stated that CIB will discuss and respond to them within two months. D. Kroon commented that what the CIB had done was very fair.

CIB_ActionItem_0714-04: The CIB will comment on proposal 857A and DREAM-WS report electronically in the next two months.

--- CIB made a consensus after the meeting ---

CIB_Consensus_0714-13: The CIB reviewed IODP Proposal 857-MDP "DREAM: Mediterranean Salt Giant" and 857A-Pre "DREAM: Deep-Surface Connection" together with their SEP June 2014 reviews and recognized the importance of this project. The CIB endorsed their scientific objectives and agreed with the SEP reviews to develop 857A-Pre to a full proposal. However, the CIB decided not to invite a workshop proposal for 857A-Pre for now, since the proponents have already run several well organized workshops in the past. Additionally, the CIB is waiting for other daughter proposals submission under 857-MDP before they consider the necessity of a future CIB workshop. The CIB also recommends that the proponents keep in close communication with CDEX to properly scope out the riser drilling operation, as per the SEP review.
Also the CIB is in favor of SEP's comment regarding development of a Complementary Project Proposal (CPP), since it is easy to imagine a huge amount of funding is necessary to conduct this project, and also industry will certainly benefit from understanding the stratigraphy through deep salt layer drilling. Therefore the CIB encourages the proponents to contact the hydrocarbon industry as well as other potential funding resources to make this proposal as CPP. Also, the proponent may seek for enthusiastic supports of project funds from national and regional funding agencies.

Chair G. Kimura called the meeting to an end for one hour lunch at 12:28 h.

18. *Chikyu* Facility Procedures, Guidelines and Policies (**originally Item #19**)

(13:32 h.)
Chair G. Kimura reconvened the afternoon meeting at 13:32 hrs. S. Humphris left the meeting to catch her return flight during the lunch break.

N. Eguchi began with reviewing “IODP Sample, Data and Obligations Policy & Implementation Guidelines”. He explained this was the only document that all the FBs use. He opened it for CIB review and approval. H. Villinger made a comment that “Specifically, IODP ensures” should be “IODP facility board ensures” to be clear because the program, IODP, cannot ensure anything. D. Divins stated the document is written in terms of each FB, so it explains what each FB’s responsibilities are.

H. Villinger added that it was unclear who owns the samples, CORK data, and observatory data if the data is in public after moratorium period. He also mentioned that CIB should add one bullet saying “if a museum asks for core to display, curators should make sure the samples are stored under appropriate conditions”. N. Eguchi asked D. Divins for suggestion to incorporate with the comment. D. Divins agreed to modify that statement. K. Gohl supported that constructively all the FBs should open it for improvements, but the question is why this opinion did not come earlier, as all the FBs had been discussing this since 2013. J. Allan pointed out that the policy was accepted by two FBs and he did not think it is appropriate to modify right now. He continued to say the museum issue is under the curator’s control and he did not think JRFB Chair S. Humphris would agree the modifications since it worked on for a year. If you need add anything after a year, other FB would also discuss those revision. K. Gohl noted it is not practical if it is revised every year and we should have one policy as IODP at the end, and suggested to have *Chikyu* specific requirements for now and discuss with other FBs to incorporate it to the policy in the future. H. Villinger added that it would be a question of priority, from his point of view storing materials properly is a basic requirement. J. Allan pointed out that H. Villinger cannot say that it is a basic requirement. He explained that the purpose of the policy is to give keys to curators to work together and give authorities required for doing their job. K. Gohl noted that basically curators developed the policy. J. Allan agreed with this. N. Eguchi asked if the CIB members are comfortable with accepting the document as it is.

CIB_Consensus_0714-10: The CIB accepted IODP Sample, Data, and Obligations Policy & Implementation Guidelines as it is.

N. Eguchi opened the observatory data handling issue for discussion or ideas. D. Divins commented that something more important has to be discussed than just trying to figure out how to put the data in a database. H. Villinger wondered if the JRFB or ECORD FB had already discussed this issue. K. Becker pointed out that it did not appear in the policy, and the program never took the responsibility to take care of observatory data; if a policy has been set up to take care of the data, they have to set up a different moratoriums. J. Allan noted that there are requirements in funding to put the data somewhere in an internationally accepted database after a period of time; however, IODP does not have to do anything, e.g., data collection etc.; it is hard to have authority over borehole data of JAMSTEC on its funds. JAMSTEC has to make a management policy, the CIB or other FBs are not in the position to make the policy for those observatory data. Chair G. Kimura suggested it would be a question to JAMSTEC. S. Kuramoto pointed out that one hole is connected to the DONET network, and those data are basically open. The policy of JAMSTEC data handling

for the other vessels data is to basically require opening the data to the public after a 1-2 year moratorium period. Chair G. Kimura asked if the policy has to be open to the public so that it would be very convenient to scientists. He also asked if the CIB should make a consensus regarding observatory data to scientists. S. Kuramoto responded that it would be out of the function of IODP. M. Kinoshita pointed out that there is a clear policy in JAMSTEC, which is that the data should be opened after two years moratorium. He continued to say that IODP side has nothing to do with the data. M. Kinoshita noted in a response to H. Villinger that open data is a different issue and asked if who will responsible for some data, which is not under quality control.

Chair G. Kimura and the CIB members agreed to make a consensus regarding sample material treatments for outreach, etc. The group agreed.

CIB_Consensus_0714-11: The CIB recommends that KCC makes sure sample materials are properly stored/exhibited when lending those materials for education and outreach purposes.

Chair G. Kimura opened the group for discussion and other opinions regarding the IODP sample data and obligation policy. Lallan Gupta mentioned that CAB members and its contact information were only decided on to be listed in Appendix C, and he suggested to modify the contact information on page 12 to contact information and references to place references for curatorial procedures described in pages 3-4. H. Given confirmed that she updated the membership information and included what the “CAB” does on the iodp.org website because S. Humphris and K. Gohl suggested not to include the membership contact information in this document to avoid updating the document every time the members changes. L. Gupta said it would be nice if it says “contact information and curatorial procedures” instead of just contact information. H. Given will take care of the change upon approval from the CIB.

M. Kinoshita asked if KCC clarifies the role of the CAB and who is responsible for decision-making since some required issues are beyond the curator’s authority.
H. Given stated the document says that the FBs will be responsible for making final decisions.

(13:58 h.)
Chair G. Kimura went on to the other documents, and opened the group for comments.
N. Eguchi stated that “Staffing Procedures” have not prepared the document yet. He continued to explain that *Chikyu* specific documents including “Onboard Measurements Guidelines”, “Third Party Tool Guidelines” and “Second Post Expedition Meeting Guideline”, will be circulated among the CIB members once any revisions are made.

H. Villinger asked about standard measurements in the “Onboard Measurements Guidelines” for riser or riserless drilling because the list of standard measurements is much

shorter than that of the *JR*. N. Eguchi answered that this is for riser operations; in case of riserless drilling, *Chikyu* follows *JR's* standard measurements.

H. Villinger pointed out that it should clarify who endorses the deviations identified in Scientific Prospectus. N. Eguchi replied that deviations are more optional and co-chief scientists make these decisions. H. Villinger pointed out that in the case of temperature measurements (an optional measurement), if the co-chiefs are interested in taking them (if they are only superficially interesting to the site), they could push aside other scientists only interested in sediment data and not interested in these measurements and data for legacy purposes. N. Eguchi understood H. Villinger's point. Chair G. Kimura asked to inform him if there are any opinions/comments on those documents and CIB will finalize them at the next meeting.

CIB_Action Item_0714-05: CDEX send the following Chikyu related document to the CIB members for their review. "Chikyu Staffing Procedure", "Chikyu Onboard Measurements Guidelines", "Chikyu Third Party Tool Guidelines", and " Chikyu Second Post Expedition Meeting Guidelines".

19. CIB Workshop Report (originally agenda item #16; agenda has changed)

(14:03 h.) JTRACK WS
S. Kodaira presented the JTRACK work shop report, including summarized key findings of JFAST and supporting data, JTRACK pre-proposal submission, overall goals of JTRACK, objectives, JTRACK workshop overview, JTRACK scientific questions, drilling strategies, proposed sites, and summary.

H. Villinger asked about microbiology reactions in faults. S. Kodaira replied that microbiologists who participated in the workshop mentioned some kind of microbiological reactions producing hydrogen in the fault, which they would like to monitor. Chair G. Kimura confirmed with S. Kodaira that the JTRACK project is ready to submit a full proposal.

20. KCC Report

(14:31 h.)
M. Kinoshita presented updates from the Kochi Core Center. M. Kinoshita noted that Access and Benefit Sharing (ABS)-based JAMSTEC policy may be applied to DeepBIOS samples. Subsequently, he presented IODP and legacy core repository status, and curation of core materials. Currently, the core storage is beyond capacity (some sample requests are pending), while the new repository will be ready by fall 2014. He continued to show sample requests statistics diagrams including samples shipped, visitors, and publications based on sample requests, working halves sample availability with core images, virtual core viewer of XCT images (ongoing), sampling party report (IODP Exp. 346), core protection

from tsunami, analytical facility for IODP research, pre-cruise training and J-DESC core school, and core materials to be received in KCC in 2014. Following the IODP sample data and obligation policy implementation plan, KCC would accept and implement the new policy, sample request decision making process (IODP curator can ask for advice, appeal to the curatorial advisory board (CAB), after moratorium, investigator contact IODP curator, if they are not satisfied, they can directly appeal to CAB).
M. Kinoshita introduced perspectives for improved service to the IODP community (e.g., inform requesters of the expected time to delivery with some details), and new services to outside the IODP community, e.g., share experience and know-how accumulated by IODP services to utilizing potential participants which includes, for example, asking for fund to invite 10 young scientists for basic core analysis training. No comments and questions were raised.

Chair G. Kimura asked M. Kinoshita if he has any idea on special treatments of loaned core samples to museum, educational/outreach purpose regarding the previous agenda item. L. Gupta commented that when the KCC loaned core samples to museums or other equivalent institutions for exhibits, KCC negotiated with them. We could use existing procedures, which should be enough, and it may not be necessary to have specially defined treatment.

Chair G. Kimura closed the meeting for a coffee break, the meeting to reconvene at 15:20 hrs.

21. Outreach Activities

(15:20 h.)

Tamao Omata presented CDEX/JAMSTEC outreach activities updates, including CDEX activities for media, *Chikyu* onboard interviews in 2013, contributions to media, onshore activities, publications covering *Chikyu*, events, web-based outreach (e.g., JAMSTEC YouTube channel), number of hits on the *Chikyu* website, promotion of JFAST scientific results, news report about JFAST scientific achievement, *JR* port call at Yokohama (22 media participants), communication with IODP countries (sharing info on daily basis), education and lecture, and output by high school students. H. Given confirmed T. Omata is the official outreach officer of CDEX/JAMSTEC, which will be updated on the iodp.org website. Also, she confirmed with T. Omata that she will refer to her when SSO receives any requests to use images of *Chikyu*.

22. CIB Member Rotation

(15:43 h.)

S. Kuramoto reported that three people (G. Kimura, K. Nielson, and Y. Tatsumi) will end their term at the end of JFY2014. Selection committee will be set up by JAMSTEC President Asahiko Taira and have email-basis meetings to decide on new members during January to March 2015. Calls for nomination will be sent through the PMOs, web, journal advertisements, and on and/or newsletters this coming fall (by the end of 2014). Chair G. Kimura asked if/suggested the CIB needs some rule for alternative members in case members are absent (like this time), which was not covered by the previous selection committee. S. Kuramoto replied there are currently no rules and CDEX/JAMSTEC needs to think about this. Two ideas he came up with were to increase a number of members so that absence may not be affected much. However, it any adjustments should take into consideration of both cost and management issues. Another idea was to select on-call alternate members who will be CIB members in the next term. He will take care of the issue. Chair G. Kimura confirmed that there were no more questions and comments.

23. Review of Consensus Statements and Action Items

(15:48 h.)
N. Eguchi read out the list of consensus items, including 11 consensus and four action items, and opened each consensus/action item for questions and discussion.

Regarding CIB_Consensus_0711-5, K. Becker asked about the selection of the mantle penetration working group members. N. Eguchi answered that CDEX will select them since it involves travel support. H. Given asked if CDEX would allow to have external engineering experts because of the potential risks and financial implications. N. Eguchi responded that the group would go through TAT when necessary. He also confirmed that CDEX would consider the working group members and inform the CIB members know before finalizing this consensus.

Regarding CIB_Consensus_0711-8, N. Eguchi asked if there is any correct English name for the committee. Y. Kimura answered that he will inform N. Eguchi later.

Regarding CIB_Consensus_0711-9, H. Given asked if the SSO could post the schedule on the iodp.org website. She also pointed out the only *Chikyu* schedule was currently blank in the iodp.org website and mentioned she can mark the schedule as “pending funding”. S. Kuramoto replied that CDEX/JAMSTEC would contact H. Given as soon as possible.

Chair G. Kimura opened the action items for discussion and questions on CIB_ActionItems_0711-1 through 4. H. Given asked if the CIB would continuously call for more proposals. C. Moore responded yes, that would be more competitive and better. H. Given in a response, made the changes on call for proposal application document. Chair G. Kimura made sure there were no more questions.

M. Coffin asked if only proposals with PCTs should be prioritized in the next meeting. N. Eguchi replied that the CIB members have to discuss how they want to move the PCT forward before the meeting. The CIB defined the PCT establishment and prioritization of proposals but the CIB can change, especially since the CIB just realized this kind of situation may occur. C. Moore added that we do not want a little rule to constrain if a rocket proposal comes out of the proposal pile. K. Becker confirmed that the CIB wants to state that this meeting amends the previous decision on the requirement of having a PCT. C. Moore replied there is an exception in every rule. M. Coffin asked if Hikurangi (781) still has a chance to be prioritized. K. Becker commented that the CIB is not in a position to discuss Hikurangi (781), which was just reviewed two weeks ago in a general procedure. H. Villinger said therefore we should delay the meeting.
N. Eguchi added that Hikurangi (781) had been reviewed in the SEP January meeting, and anyway the CIB should have an email meeting. H. Villinger confirmed if the CIB has four PCTs, though the CIB knows none of them starts before JFY2018. K. Becker also confirmed if Hikurangi (781) does not have a PCT, the CIB still prioritizes Hikurangi (781) proposal. C. Moore agreed with K. Becker, and said he would say yes.

24. Next CIB meeting

(16:09 h.)
Chair G. Kimura raised a question regarding the scheduling of the next CIB meeting. S. Kuramoto suggested that early June was a potential, considering conflicts with other meetings. H. Given mentioned that the iodp.org website has scheduled meeting information. H. Villinger pointed out that the CIB needs to discuss the prioritization of the proposals in the meeting, and he proposed September if the meeting is not urgent. Chair G. Kimura asked S. Kuramoto if this would work or not. H. Given pointed out that there would be an EPSP meeting in September. C. Moore replied to H. Given that it might not conflict with the EPSP because *Chikyu* does not use EPSP. Chair G. Kimura commented that the end of JFY14 window is for NanTroSEIZE riserless observatory at C0010 site, but the JFY15 riserless window has not yet been decided.

S. Kuramoto mentioned CDEX/JAMSTEC had a plan to have a 10th anniversary of *Chikyu* celebration after the dry dock, and combining it with the next CIB might be great. Chair G. Kimura pointed out that the *Chikyu* schedule in November 2015 was not fixed; however, CIB needed to have the meeting before *Chikyu* operations in November, which depends on commercial drilling in 2014. S. Kuramoto said that CDEX/JAMSTEC would have a certain number of JFY15 budget at the end of 2014. Early in the fiscal year there would be time, and he suggested that the CIB meeting could be held as an email basis.

H. Villinger asked if any riserless proposals are ready to go for the JFY15 riserless window. N. Eguchi and D. Kroon replied that the NanTroSEIZE riserless observatory at C0007/C0006 could be a candidate and also the Nankai Trough sub seafloor temperature limit (865) was sent out to an external review, and SEP planned to have it back by the

January 2015 meeting according to the SEP meeting report (Item #15). H. Villinger said that it would be too close. H. Given asked how much time CDEX needs to plan an expedition to respond to H. Villinger. D. Divins replied a cruise preparation required at least eight months. N. Eguchi commented that operation side (CDEX) can prepare if we know that proposal is in the pipeline, and suggested asking SEP to do a fast track review, which would not preferable to the SSO. H. Given pointed out that there is no faster track. N. Eguchi asked if SEP could discuss it faster.

D. Kroon mentioned that if the CIB sent a message to the group, the proponents would get ready. H. Villinger pointed out the schedule was still tight even if they had budget for CORK. D. Kroon added that the proponents wanted to have sample rocks and sediments from the sites for sure. H. Villinger asked what is the possibility to set the observatory later. K. Becker added that the proponents would place a reentry cone, and they want to come back. D. Kroon said some discussions with the proponents could possibly solve that faster than we might optimistically think.

(Continued discussion on scheduling the next CIB meeting 16:28 h.)
Chair G. Kimura summarized the discussions so far: to decide the JFY15 window, which depends on commercial work in JFY14 and the JFY15 budget allocation, the CIB could focus on a base case where CDEX/JAMSTEC can operate the riserless Mariana Convergent Margin (505) without CORK installation, NanTroSEIZE riserless observatory (603) and potentially the Nankai Trough sub seafloor temperature limit (865) could be open for the next riserless operation window.
He also asked what kind of message the CIB needed to send the proponents and what they needed to ask from the proponents.

D. Divins noted that Mariana Convergent Margin (505) was discussed at JRFB and suggested CIB needed to coordinate with JRFB chair, S. Humphris. C. Moore commented that it is strange that we are going to move the meeting. Chair G. Kimura agreed with D. Divins that CIB needed to discuss – including the coordination with JRFB.

Regarding the Nankai Trough Temperature Limit (865), Chair G. Kimura noted that CIB needed to ask SEP in advance for the external review. In that case, CIB should have a face-to-face meeting after January since the CIB does not need to discuss the PCT prioritization issue in a hurry. Also, he suggested that early June is too close to the JFY15 operation window and suggested February as a potential meeting date. D. Kroon agreed that CIB could have a February meeting, considering the SEP meeting is in January. Also, he noted that the Nankai Trough Temperature limit (865) was probably suitable for *Chikyu's* schedule. Chair G. Kimura confirmed with D. Kroon that the CIB could get key information on the proposal (865) by the February meeting. I. Sawada pointed out a problem is the proposed cruise (865) required carbon fiberglass casing and suitable wellheads. N. Eguchi added that if CDEX starts scoping in summer, the CIB could discuss the material preparations with other IOs since *JR* has experience with fiberglass casing, while he noted

I. Sawada's concern. H. Villinger made sure that the next CIB was scheduled for mid-February 2015.

CIB_Concensus_0714_12: The CIB chose its next meeting for middle of February 2015 in Japan assuming several decision making factors are set by them.

25. Other Business

(16:38 h.)
Chair G. Kimura moved to the last Item #25 Other Business.
H. Given asked what SSO should call the IOs in the iodp.org website since the U.S. moved away from the term "implementing organization" in their program plan. D. Diving suggested to keep using the term, IO, so that people do not need to change many documents or places using IO. H. Villinger added that IO is obscure and operator is straightforward.

T. Tsuji asked if CDEX evaluates riser drilling sites as EPSP does for riserless drilling. N. Eguchi answered that CDEX uses the *Chikyu* drilling safety committee for riser drilling site evaluation.

Chair G. Kimura called the meeting to a close at 16:41 hrs.