

**#18 PMT Meeting
15 – 17 June 2010
Hotel MUNTE, Bremen, Germany
Executive Summary**

Agenda

15 June 2010, 0900 - 1800

1. Meeting logistics (Kopf)
2. Previous PMT action items review (Kawamura)
3. Overall 2010 Expeditions (Exps. 326, 332, & 333) (CDEX)
 - 3.1. Operational schedule
 - 3.2. Staffing update
 - 3.3. Prospectus
4. 2010 Expedition specific issues
 - 4.1. Exp. 326
 - 4.1.1. Staffing issue (Tobin, Kinoshita)
 - 4.2. Exp. 332
 - 4.2.1. Riserless observatories components update (Araki)
 - 4.2.2. Riserless observatories installation update (CDEX)
 - 4.2.3. Site finalization and decision tree approval (Kinoshita, Tobin)
 - 4.3. Exp. 333
 - 4.3.1. Site prioritization (Tobin, Kinoshita)

16 June 2010, 0900 - 1800

5. Deep riser hole planning
 - 5.1. Riser operation criteria update (CDEX)
 - 5.2. Overall drilling perspective for FY11 and beyond (CDEX)
 - 5.3. Science goal setting for mega-splay (5500m) and plate boundary (7000m) (Kinoshita, Tobin)
 - 5.4. Pore pressure prediction and casing/mud program (GMI/CDEX)
 - 5.5. VSP (Hino)
 - 5.6. Other operational options for FY11 (Tobin, Kinoshita)

17 June 2010, 0900 - 1800

6. Other issue
 - 6.1. Long range planning and project scope discussion (Kinoshita, Tobin)
 - 6.2. Moratorium and data sharing issue on 3rd party measurements (WVSP, etc.) (Tobin, Kinoshita)
 - 6.3. Data/Sample request, Sample Allocation Committee (Kinoshita, Tobin)
 - 6.4. Post-expedition activities (Tobin, Kinoshita)
 - 6.4.1. Stage 1 Post-expedition publication
 - 6.4.2. Stage 2 Operation Review Task Force meeting
 - 6.4.3. Stage 2 2nd Post-expedition meeting
7. Adjourning meeting (Kawamura, Kinoshita, Tobin)

PMT Consensus Statements, Recommendations and Action Items

The PMT come up with the following Consensus/Action item statements.

Consensus 1: [Exp.326 Staffing] PMT recognize needs for Exp. 326 co-chiefs even if there will be no scientific outcomes. Co-chief Project Scientists agreed to be assigned as co-chiefs, and it is not mandatory for co-chiefs to be onboard during the entire expedition.

Action item 1: to create an operation protocol for the situation. (by CDEX & Co-chiefs)

Action item 2: to contact PMOs to explain the situation, and get comments, if any. (by CDEX)

Background: PMT discussed needs of science representatives during this expedition to assign Harold and Masa as Co-Chief Scientist on this expedition, but PMT agreed that it is not necessary for Co-Chiefs to be onboard during the expedition. CDEX needs to inform PMO this special case treatment.

Action item 3: [General] to consider an exemption of HUET certification or extend certified validity for researchers, who had one HUET. (by CDEX)

Background: HUET certifications of bough Co-chief Project Scientists has been expired and need renewal for attending this year expedition. PMT feels it requires big effort for researchers to take second full HUET training to join short Chikyuu visit just after the expired date.

Consensus 2: [Exp.332 Operation] PMT agreed that C0002 riserless permanent observatory installation is one of the primary goals during Exp.332. To achieve the science goal and ensure the operation success, the following conditions have to be met.

- Packer seal in the bottom of hole is essential for hydrogeology. To complete combined permanent monitoring system, there is no room to install the system without packer seal.
- Go/No-Go decision of permanent observatory installation will be made by Sep. 1, consideration of the sensor system integration test and packer seal test result.
- Continuously prepares Genius-Plug (or Smart-Plug) as backup for permanent observatory system.
- Casing configuration has decided with screen only, no outside casing packer required.

Background: PMT observatory team (Araki) reported status of his sensors readiness and swellable packer test. PMT discussed several concerns/risks such as cementing, swellable packer setting procedure, cable handling/fixed method, minimum sensors requirement for science success, etc.

CDEX expressed the risk of cement fill for casing screen and proposed usage of outer casing swellable packer, but PMT concluded cement fill risk is much less than complication of outer casing packer setting operation.

Go/No-Go decision on riserless permanent observatory at Site C0002 should be made upon by system integration test and swellable packer setting test result at Sep. 1, 2010. PMT requests

CDEX to prepare Genius-Plug (or Smart-Plug) installation as backup for permanent observatory if any potential problems will be happened.

Consensus 3: [C0002 hole location] Requesting by CDEX, PMT reconsidered rise hole location at C0002 as well as riserless observatory hole one with consultation of DONET/observatory team and defined new locations.

Action item 4: to provide new hole coordination (longitude/latitude) at C0002. (by CDEX)

Action item 5: to inform Barry Katz (EPSP chair) about new location of deep riser hole. (by PI)

Background: CDEX requested the relocation of C0002 deep riser hole, due to safety concerns, especially evacuation route security. At the same time, PMT observatory team (Araki) raised consideration for permanent observatory hole location, related to accessibility to DONET cable and interference with existing drilled holes (request minimum 75m separation). PMT discussed, examined seismic cross section for deep hazard, checked DONET cable locations, and agreed to shift deep riser and riserless observatory holes to new locations and CDEX confirmed them.

Consensus 4: [Exp.333] PMT set Exp.333 site/operation prioritization as follow.

1. Heat flow measurements and HPSC on C0011, C0012
2. Coring basement basalt (200m?)
3. NTS-1A (NanTroSLIDE)

In extreme case, PMT recognized the importance of permanent observatory installation (Exp.332) is higher than in-put site coring etc (Exp.333), therefore a half of Exp.333 window may allot to Exp.332 completion.

Action item 6: to provide most precise time estimate for individual operations of Exp.332 & 333. (by CDEX)

Action item 7: to modify "Call for Participation of Exp.333" for re-expressing basement coring. (by CDEX & CPSs) – **done**

Action item 8: to canvass petrologic community to find a few petrologists to join Exp.333. (by Specialty Coordinators)

Background: PMT re-clarified site/operation prioritization of Exp.333 and the highest priority assigned to heat flow measurement without argument. There was some discussion for basement coring and land slide coring prioritization based on science outcome related to future plan of NanTroSEIZE and IODP whole.

Consensus 5: [Deep Riser Hole Planning] PMT revisited and reestablished the ultimate goals for NanTroSEIZE project, include:

- Completion of C0002 (deep riser hole) through Mega Splay Fault (5,200m), across Plate boundary (7,000m) with all science measurements such as LWD/wireline logging, core sampling, downhole measurements and without ignoring any science on the way/whole interval.
- Implementing 4 permanent observatory systems at C0009, C0010, C0002 shallow and C0002 deep.

Consensus 6: [Deep Riser Hole Planning] Based ultimate science goal and current condition include (Budget, operation capability), PMT executed C0002 deep riser hole plan include extension beyond FY2013 to submit Aug OTF meeting.

Consensus 7: PMT agreed to consider casing design and operation procedure including real time monitoring and controlling drilling parameters, based on GMI report.

Consensus 8: [Permanent Observatory] PMT requests operation time being allocated for riserless C0002 shallow observatory installation in FY11 [if not, FY12], C0010 in FY11 [or FY12] and C0009 in FY12 [or FY13].

Consensus 9: [Permanent Observatory] PMT always considers/recognizes permanent observatory installation/operation at C0009 as precursor to deep permanent observatory installation/operation at C0002.

Action item 9: to prepare PMT statement for OTF (submit to IODP-MI Operations Manager) based on consensus 5 & 6. (by PMT lead by CPSs)

Action item 10: to execute time estimation based on consensus 6; deep riser hole plan. (by CDEX)

Action item 11: to report wireline coring limitation in great depth. (by CDEX)

Action item 12: [C0009 Observatory] to investigate feasibility of C0009 permanent observatory installation operations, including the necessity of full sealing well head (x-mass tree), the possibility for riserless reentry and drill-out cement operation, the status of instruments & packages deployment, and potential setting temporarily Smart-Plug. (by CDEX)

Background: CDEX presented three budget scenarios for next three years, and showed three drilling plans based on budget. None of the plans met the project requirement, especially scientific achievement point of view. The worst case budget scenario, which is conducting only three month riser operation per year, will bring very limited science results and it is very difficult for PMT to continue the project as current strategy. Even better budget scenarios potentially include the risks not to complete ultimate project goals by FY2013.

Therefore, PMT revisited ultimate goals of the project, and discussed best science outcome scenario by the end of FY2013, and strongly expressed the necessity of continuation of the project beyond FY2013.

Action item 13: to execute 3rd-party data request policy. (by IODP-MI)

Background: There is some uncertainty how to handle the permanent observatory data in IODP. In general, PMT agreed to publish such data but requires clear policy and/or guidance. PMT observatory team suggests 24 month moratorium policy for observatory data.

Consensus 10: CDEX set Pre-expedition meeting for Exp.332, 333 as follows:

- Exp.332: 10-11 August, 2010 at JAMSTEC Tokyo office
- Exp.333: 28-29 July, 2010 at CDEX

Consensus 11: Next PMT meeting will be held at Saturday, 18 December, 2010 in San Francisco after the AGU meeting.