Minutes of 3<sup>rd</sup> Interim Site Survey Panel Meeting February 24-26, 2003 Bologna, Italy

## Supplemental Material for Minutes:

- 1) List of participants
- 2) Agenda sent by email
- 3) Powerpoint of Nobu's iSAS summary.
- 4) iSAS report hand-out by Jamie Austin
- 5) iPPS minutes hand-out Meeting #2 Dec 2-3 2002 from Soenke Neben
- 6) iSCiMP 12 02 Min.ALL.Dft.pdf from Dave Divins
- 7) Powerpoint from Dave Divins (iSciMP Report)
- 8) Powerpoint OD21
- 9) Powerpoint Summary of DataBase Working Group Meeting(s) (DBWG) and Future Data Bank Report
- 10) Powerpoint presentation of Shipp of Paper copy of "Guidelines for Drill site Selection and near-surface drilling hazard surveys
  - 11) Caress Boiler Plate iSSP "raising the bar" for data submissions to be electronic etc.

Other paper and electronic documents given to Nobu and Andre.

# February 24, 2003 Monday

0830

Co-chair Andre Droxler: Introductory Remarks Thanks Hosts Agenda has not changed, but a paper copy passed around.

Round Table introductions.

Host Luca Gasperini:

Reminds everyone that we cannot have lunch until after 1:30pm Social Dinner tonight – at 8:00/8:30 pm Leave at 7:30 pm – walk to Center of town. Sign up for Dinner at table. Coffee Break will be at 10-10:30

Andre: Workload is light for this report. Many Pre-proposals.

Dan Q.: Some new data, but mostly reports from PI's on planned submissions.

Andre: Two major items – Working Group on Data Bank – Kirk will present summary of Saturday's meeting. Site Survey Matrix – Craig and others will summarize.

### Start of Reports:

Andre: one suggestion load reports on usb sticks to make use of the existing computer and thus avoid the time needed for rebooting computers and hooking up to powerpoint projector, etc.

0850

Nobu Eguchi, iSAS Office:

Powerpoint presentation:

1. Graph of iSAS committees and panels

IWG- iSAS, iPC, iSSEPs, iSSP, iSciMP, iPPSP, iTAP, iILP

iPC – Kinohita Mooer

iSSEPs – Byrn Camoin ...

2. iSAS meeting schedule

\*\* End of September – interim panel structure ends? \*\*

3. Proposal Status

Total 95 as of Oct 02 –16 at iISSEPs

4. Scientific Themes of Active Proposals

22 solid earth

20 Deep biosphere

53 Environmental change

5. Proposed Drilling Site as of Oct 2002 – Map

0900

Jamie Austin, iPC:

Using overheads and paper copies

Refer to paper copies –

1. About 100 proposals, and iPC – 20 have been reviewed and most are ready

By Oct 2003 = at least 3 years away from riser

at least 2 years away for non-riser

at least ~18 months away for MSP

Community activity dropping off, but number of proposals needs to continue to rise. We are not out of the woods. The program and money are not on the board. Money situation in Japan is good, but not so in US. The 2004 US budget does not have funds allotted, the 2005 maybe for non-riser vessel.

Panel memberships will change in Oct 2003 based on funding from individual countries.

- 2. 3 MSP's ranked top is Arctic Lomonosov Ridge, Tahiti Great Barrier Reef sealevel rise, New Jersey Shelf. Hope was 2004 for Arctic but money still not in place. The order that these things occur may not be in the order of their scientific rating. If funding is in place for number 2 or 3 but not for 1, then the order might change. Artic must be done in the summer weather dependent.
- 3. CDP's Complex Drilling Programs Riser DPG's Detailed Planning Groups

Probably not more than one or two DPG's at time Problem is what is a CDP and what is not. Theoretically many things

could be packaged as a CDP.

As far as the iSSP is concerned, it doesn't matter what the Proponents call it, we are still concerned about evaluating the readiness of each site that is proposed

E.g. IMAGES – long term Marion Dufresne platform – note not all drilling will be part of IODP. Don't change rules of planning letter, let the decision-making be done by iPC.

4. Update on IODP guide. Austin to Fisher to MacLeod for further review. 5-7 Skipped

II iSSEPs – skipped

III. IPPSP – skipped – Joel

IV. iSciMP – skipped Dave Divins will summarize

V. iTAP – charge with looking at tech developments outside the program and how they can be mapped into the program

Joint proposals with industry are of interest to iILP – the interim industry liaison panel.

One big issue is proposal pressure. The US scietific community should not slow down in proposal submission, or else US funding agencies will receive a bad signal. Oct 2003 new program starts, but how long gap until drilling is uncertain. IODP is not in the European Financial Plans for the next five years and amount committed is less than initially anticipated. Math has not been worked out - US/Japan agreement not yet signed, everything is delayed. The RFP was supposed to be out a year ago. The two year ramp/down and ramp/up period has now been squeezed into 10 months.

Q: how do you encourage scientists to submit with long time delay

A: it takes a long time for the proposal to reach maturity.

If community is not active, nothing will happen.

If they are very active, then they will move to top quickly.

The motion through panels takes a long time.

Proposals and site-survey work etc occurs over time, it matures and evolves as the proposal makes its way through the panel structure. It takes several years. CDP's will not be determined right away. The will become a CDP as the program develops. It will be quite awhile before anything becomes a CDP.

Finland: Most the European countries will join together in IODP except for Germany and England who are still in discussion within their own perspective countries.

There is no guarantee that IODP will come alive, but the bare minimum to make it come alive is to keep international interest and activity at very high level.

0940

Joel Watkins (and on behalf of Craig Shipp)

iPPSP – considerably different – new Japanese expertise, industry expertise.

Panel was reactive in the past. The new iSSP – proactive – watchdogs appointed early on. Low risk, high risk, moderate risk etc will be put to the new proposals. But now with MSP and riser drilling, there will be a much heavier load of work. They will do email reviews on low-risk. For high risk, there will be additional requirements – which they have been focusing on at recent meetings and they are making progress. They looked at MSP and approved some of the holes for the Lomonosov Ridge. They are anxious to see it move forward. Tahiti no tech problems – but pollution concerns. New Jersey some minor concerns.

0947

Mike Enachescu/Andre Droxler, iISSEP/iESSEP:

See Mike's PowerPoint presentation to fill in.

Definition of CDP is complex drilling program (not complex drilling proposal) i.e., many proposals would make up one CDP. Many proponents can submit a proposed CDP, but until the iSSEP or iPC(?) awards it, they will only be proposed (and not awarded) CDPs.

Note – there are many proposed CDP's but none have been designated as a CDP. See in appendix power point for nice list of what makes a CDP.

PPG: Program Planning Group (e.g. deep biosphere) they would put a plan (there were about a dozen). It is not clear what PPG what would do in the new program. There are none in IODP, yet. These PPG were supposed to be experts to develop plan, but the PPG could not be a proponent group. But individually, PPG members could write individual proposals.

Discussion on SSEP structure. Maybe one single panel, 3 co-chairs Environmental, Interior, and new Biosphere - - 30-35 members, large single group of experts, difficulty to keep the dynamic and participation of individual members.

0918

Dave Divins:

iSciMP:

See Dave Divins's power point and pdf file.

3 scientific operators (at least 2) and 3 data bases.

a DATABASE OPERATOR who will oversea all data in IODP.

This prevents making operators from having to use the same system, yet will make the database product a uniform deliverable to the scientists. The idea being that any scientist will only have to work with one format regardless of which sci operator provided the data base to the data bank.

Proposed new committee: OPCOM: to help schedule leg priorities, take care of funding issues that might arise. This is being proposed to insure that IODP is a science driven program, rather than an operator program. Also, don't want operators competing amongst themselves to obtain funded projects etc.

Standardization of drill pipe diameter – would lead to standard drill string, which will make measurements comparable across platforms, although it is realized that in some instances, e.g., MSP's it might not be possible.

Last recommendation – changing the way they do business. Be more proactive, link iSciMP to iSSEP watchdogs via liaisons.

1030

Coffee Break

1100

**iODPDB** 

Dan Q:

Summarizing status of data bank activities

Working on ODP phase out, archiving ODP data set.

The Science Body must say we need a fully functional data bank. Don't care where and how it is funded but it needs to be somewhere and accessible. Full online digital access is most preferred. A statement from this panel would be a good idea. Functionality must continue irregardless of what the structure is and where it will be, for iSSP and ISSP to continue assessing site readiness.

Progress of OD21 24 Feb 2003

CDEX/JAMSTEC

Hashiimoto but powerpoint presentation by Nobu Eguchi:

Chikyu as of December 2002.

Center for Deep Earth eXploration (CDEX)

Personnel

Example of seismic data obtained in Northern Japan.

Kochi Core Preservation and Analysis Center at Kochi west of JAMSTEC.

Core Facility is under construction.

1120

Andre – intro to Future Data Bank Issue

Kirk McIntosh took over for Roger Scrutton as chair for this ad hoc committee formed at the previous iSSP meeting at Lamont July 2002.

Kirk McIntosh:

PowerPoint presentation.

iPC Consensus 2-5: The iPC urges the iSSP to provide recommendations to the iSSP recommendation 02-1-2 for a Future Data Bank.

Requirements:

- 1. All electronic, even rasterized (scanned), rather than paper whenever possible.
- 2. Digital files for all applicable files

- 3. Map data bathy grav mag side-scan submitted as annotated images, in .pdf, .ps, .tiff, .jpeg, etc or other electronic formats
- 4. However if databases adopt GIS capable software, then these data should be submitted as digital gridded files, which can be viewed and manipulated via web browser.

Discussion of data versus maps. Both are electronic, but the former can be used to create maps whereas latter cannot be modified.

Dan Q: what has to be designed, an IT system, different groups are designing different parts of a data bank to meet their need. There needs to be a defined development of putting this together towards RFP requirements and eventually bids.

Layers of data: Raw, processed, gridded, then image output. Concerns raised about proprietary software needed to read data, and long term archive that won't depend on support of the software etc.

Some data protection: Data is not open to all, but only to drilling scientists who are submitting proposals. This becomes even more complicated related to proprietary industrial data

12 month proprietary guideline for shipboard scientist is sometime extended to multiple years.

Data Bank should have capability to scan in paper records (if necessary) but primary goal is to have the submission fully digital for both images and processed/raw data files.

In addition to data – a report type package of figures and information possibly with initial submission of the pre-proposal.

Report would include a specific set of maps (digital maps).

This would provide a quick reference of data quality and availability set up as a template but keeps it short.

See Database Management workshop report held in April 2002 in San Diego sponsored by NSF and ONR.

Make more detailed METADATA for each data set as a separate data files to stay with each data set, rather than the proposed REPORT, that would be posted on the web.

Ana - The old drill sites should be on any new proposed maps.

Craig Shipp provided a preliminary (in Kirk's powerpoint). Minimum requirements – feel free to exceed.

- 1. Location map
- 2. Contoured bathymetry (1:12,000)
- 3. Geological Features/Geohazards (1:12,000)
- 4. Data Examples

- 5. Shallow structure Maps (1:12,000)
- 6. Isopach Maps (1:12,000)

This is based on what MMS uses for their documents. Getting things sorted out by target type, will help get proponents get focused on what they need to worry about and what they don't need. Do this on the web, using a template flow chart, which will get the proponents on track and make the iSSP watchdogs workload reduced as well.

Input from iSSP on pre-proposals should streamline the process.

Bare rock deep water dive VHS tapes etc. How do you put that on a page size summary? MPEG or video stills and quicktime formats?

Recommendation from discussion during the powerpoint presentation: We don't want boxes of tapes. Videos and video stills would need to be submitted to database as digital files such as mpeg, quicktime etc. that is deemed best.

Dan Q's template for discussion:

e.g. data type; format; media, seismic data; seg y; dlt, 8 mm , cdrom, dvd rom, ftp, ibm cart tape, (paper copies?)

Seismic velocities ... image file for velocity model, email, ftp etc.

Maps. ...etc

3. Mechanism and timing of communications with IODP panels and proponents. DBWG recommends current iSSP policies unless proposal numbers increase. Now is the time to inform the community of what is needed before we get to busy when the program starts. Although this may require more effort, now, it will require less effort by ISSP in years to come.

Discussion to move iSSP meeting towards early Feb so that iSSP can provide in time to proponents and iSSEP meetings.

5. Required Tools: Software Required Hardware Required Metadata

6. Human Resources - minimum
Project manager full time
System Engineer part time but rapid personnel
DB admin and data loader part time
Librarian part time

Discussion:

Caress: What is the mission of the database?

Austin: A mission statement should be included at least from the perspective of this panel.

Caress: Does database operator also deal with data off the ship?

Divins: 1 year hold on data off the ship and then its available.

Yet survey data, may be proprietary for longer period. Must be careful to keep them separate, but bids to RFP could address this issue.

1245

In the report that goes on web, or metadata, there should be box to check if the data are proprietary. Presently, even proprietary data are available for proposal review etc.

Ideally, iSSP panel would want all data to be available to public except under special circumstances (e.g., industrial, one or two year limits to provide funded scientists to publish et).

Who will monitor data the data protection? IMI may have their own data protections, e.g., operator may provide high-resolution 3-D for safety panel, but may not want to release the data to public. Clearly, if funding for data is not from public source, it will be up to the funding agency to determine funding availability.

Platform money and Science money. Who pays and who is accountable for the data?

We don't even have management of operators in place yet. So things still up in the air regarding data collected by operators for safety reasons.

Goal: make all data broadly available to entire scientific community after a certain protection for the scientists involved with the drilling leg. This protection may be variable depending if it is riser drilling (which will take much longer) than non riser or MSP drilling.

A simple set of guidelines for the database will need to be platform dependent and data type (i.e., site characterization data (subdivided as scientist vs. industry vs. operator data) versus data collected during drilling leg).

1310

Robert (Bob) J. Bruce and Craig Shipp:

Guidelines (draft) for drill site selection and near-surface drilling hazard surveys. i.e., site survey (characterization) matrix:

Presented by Craig:

Purpose is to integrate existing documents into one coherent document for IODP related to site characterization.

See document – hand out.

Background of the document.

Compilation of critical documents that also can be found on the iSSP CD-ROM mailed to members for this meeting.

UKOOA NPD and MMS are the three main documents drawn from for this draft.

Outline of Document

Scope of hazard assessment

Recommended framework

etc

Scope of survey area

Detailed assessment at least 60 m from proposed drill site

Hazards

seabed manmade and subsurface

Type of drilling platforms, different focused surveys for different platforms, bottom founded jack up, submersible, anchored semi submersible

DP (dynamic positioning) semi-submersible or drill ship

Survey design for bottom founded, soil stability? survey tools? Jack up, ROV assessment.

Anchored Platforms survey tools needed: long list 3d seismic data Rob assessment through riserless section

Anchors sometimes sink 30 m into sediments! Suction anchors are sometimes important and thus geologic data needed to verify that anchoring would be secure etc

**DP Platforms** 

all 3 platforms will require different types of site characterization data

Hazard analysis and reporting

Example of Hazard Impact Table – see paper copy of guidelines that was handed out.

Path forward

Input and suggestions from interested IODP community members

Eventually, a single set of recommendations is going to be needed from both iSSP and iPPSP. This may result from a more uniform matrix to work from. But, keeping in mind that iSSP is concerned if sufficient data are available to insure that drilling will meet scientific objectives and iPPSP is concerned if sufficient data are available to insure that drilling is safe and environmentally safe.

Another issue is that the game has changed. The site matrix has to consider both the location of the hole AND the type of platform is to be used.

1345-1445 Lunch in Cafeteria

1500 – Craig Shipp reviewing his integration of 3 separate documents

Austin Q: Drilling Clearances?

Shipp A: Most Countries make use of the same 3 separate documents to make decisions and thus this approach should be well accepted.

Droxler Q: Will Japan CEDX make use of similar guidelines?

Nobu: This is being developed and will follow up with CEDX about this.

CEDX may also have similar documents.

1310 –1350 Discussion of how to modify matrix of scientific objectives and link with safety.

Matrix Working Group Formulated:

Task to simplify and integrate the iSSP matrix with iPPSP matrix

David Naar (chair), Craig Shipp, Joel Watkins, Andre Droxler, Roger Searle, Yoshihumi Nogi, and Tetsuro Tsuro. To meet Tuesday PM and report on Wednesday.

1600 – 1è30 Set aside to review proposals.

#### February 25, 2003 Tuesday

0830 Spend one hour preparing proposal presentations 0930

Andre: Proposes new classification scheme that is more logical and consistent.

1a, 1b, 2a, 2b, 2c, 3a, 3b

iSSP final Review of each proposal are included in appendices.

Soenke N. – Arctic 533-Full 3 (MSP) Review –

10-10:30 Break

Soenke N.– finish Arctic 533-Full 3 (MSP)

Mike E. – New Jersey 564-Full (MSP) review –

David N. – South Pacific Sea level during the last glacial period 519-Full 2 (MSP).

Soenke N. – Review of the iSSP Review.

Rob S. – Installation of a Cabled Observatory-Connected Test Hole in Monterey Bay 621-Pre

Xuelin Qui – Preliminary Proposal for an IODP Investigation of the Ontong Java Plateau, SW Pacific (write up by Rob S.) 623-Pre:

Koichi Hoyanagi- An investigation of Late Pleistocene to Holocene development of the west Florida margin: 610-Full2:

1345 – 1445 Lunch

1455

David Caress:

Mariana Convergent Margin: Geochemical, Tectonic, & Biological Processes 505-Add2

The letter to the proponents should include in the Introduction a Boiler Plate statement regarding "raising the bar" regarding digital data format submission and what kinds of data are expected etc. Including the definition of the site readiness classifications of 1A, 1B, 2A, 2B, 2C, 3A, and 3B.

1520

Annakaisa Korja: 537-CDP and 537A-Full:

Drilling the seismogenic zone of erosional Middle America convergent margin:
'' '' 'Stage 1.

Not necessarily a CDP and should not be labeled as such by SSEP's according to Austin. Matter will be brought up at iPC to clarify proper usage, etc.

1545

Michael Enachescu

NanTroSEIZE: The Nankai Trough Seismogenic Zone Experiment 603-CDP

Marc Andre Gutscher NanTroSEIZE Reference Sites: Sampling and Measuring Inputs to the Seismogenic Zone

Phase 0 – sampling/characterization; Phase 1A non riser at foot of wedge, Phase 1B riser? 603A

Kirk McIntosh: NanTro SEIZE Up dip Sites: Anatomy of Splay Faults (Phase 2 and 3) lateral drilling from vertical drill. 603B

Totally clear that things are unclear. Interpretations in proposal contradict Park (2002). Cold seep locations unclear. Fault splays.

3-D HR volume seismic MCS necessary to fully image the sites to be drilled, otherwise the scientific objectives may not be reached. The cost of several \$10 M pilot holes justifies the 3-D HR volume seismics. The other issue is the interconnectivity of the fluids.

Note – Non-riser drilling won't start in 2004 because money is not there in 2003 submitted budget for 2004. Earliest would be in 2005.

Riser drilling maybe be ready by 2006.

1700 End of Tuesday Meeting

#### February 26, 2002 Wednesday

0830

Tetsuro Tsuru/Mike Enachescu: Dating Tibetan Uplift and Evolving River Drainage Patterns in East Asia using the Sedimentary Record of the Red, Mekong, Peral and Yangtze Rivers: 618-Pre

Yoshihumi Noki: Indian Southern Ocean Latitudinal Transect, ISOLAT: 619-Pre

Hiroaki Toh/Annakaisa Korja: Testing the Hotspot Reference Frame and True Polar Wonder 620-Pre

David Naar/Kouichi Hoyanagi: Late Pleistocene and Holocene Ocean Dynamics and the Patagonian Ice Sheet: Long Cores from the Chilian Fjord Region 622-Pre

Yoshihumi Nogi/Soenke Neben: Ocean-climate variability in the Atlantic sector of the Southern ocean and ice sheet stability: An IMAGES preliminary proposal for coring in the Weddell Sea, Scotia Sea, Drake Passage and the northern Antarctic Peninsula margins 624-Pre

Kirk McIntosh/David Naar: The Pleistocene Pacific Southern Ocean (PPSO): A preproposal for IODP Long CALYPSO coring in the Pacific sector of the Southern Ocean 625-Pre

#### Consensus:

Need Site Survey data, before sending a drill platform to insure scientific objectives can be met.

MATRIX Group – delivers a new logic plan to make site survey data needs from both iSSP and iPPSP integrated into a web based package that also is integrated with the proposal submission and databank submission with hot links to why the data are needed, who they are needed for, examples of the data and technology, examples of the format needed to submit to the data bank as data files and electronic figures, list of potential collaborators (inclusive list!), a living web based program that evolves with technology and new sites and new needs. Caveat put forward that additional data may be required from the site survey list from each hole to improve science and/or safety.

Request should be made to iPC to have a subset of the MATRIX working group attend June iPPSP meeting with a subset of committee {Naar, Nogi, Tetsuro, Searle, Watkins, Shipp, Caress, Quoidback, Eguchi, and Droxler}

Watkins and Shipp are members of iPPSP

Droxler, Quoidback, and Eguchi will be at the June iPPSP meeting And Naar, Nogi, and Searle request to attend to have a one day working group meeting with iPPSP on June 14, 2003 Saturday meeting before their field trip and meeting (Sun –Field Trip, Mon-Tues – Meeting). The idea is to fully merge in the site survey data requirements from iPPSP with that of iSSP and then present back to iSSP the following month at the July 28-30, 2003 meeting at Lamont.

July 28-30, 2003 for iSSP at Lamont

McIntosh and Hoyanagi Liaison to May meeting ISSEPs. Jan or Feb 2004 in Sapporo Japan? More discussion needed to avoid conflicts, and will be resolved in July 2003 at the iSSP meetings.

10:30 Conclusion of Meeting and final review write ups.

11:30 Meeting ended.