

**Chikyu IODP Board meeting #9
30-31 August 2022**

**Hyakunen Kinen-kan,
Kobe University**

Final minutes

#9 Chikyu IODP Board Meeting

*absence/O_onsite/R_remote

Members		Institution	Day 1	Day 2
Donna	Blackman	University of California Santa Cruz, USA	R	R
Gilbert	Camoin	ECORD Managing Agency (EMA), CEREGE, France	R	R
David	Goldberg	Lamont-Doherty Earth Observatory of Columbia University, USA	O	O
Katsuyoshi	Kawaguchi	Institute for Marine-Earth Exploration and Engineering (MarE3) JAMSTEC, Japan	R	*
Masataka	Kinoshita	Earthquake Research Institute, University of Tokyo, Japan	O	O
Achim	Kopf	University of Bremen, Germany	R	R
Kyoko	Okino	Atmosphere and Ocean Research Institute, The University of Tokyo, Japan	O	O
Nobukazu	Seama	Chair - Kobe University, Japan	O	O
Gen	Totani	Ministry of Education, Culture, Sports, Science and Technology (MEXT), Japan	R	R
Liaisons		Institution	Day 1	Day 2
Takehiro	Hirose	Kochi Core Center (KCC) - JAMSTEC, Japan	R	R
Henk	Brinkhuis	IODP Forum chair - Utrecht University, NLD	R	R
Mitch	Malone	JR Science Operator (JRSO), USA	O	O
David	McInroy	ECORD Science Operator (ESO), British Geological Survey, UK	R	R
Tim	Reston	SEP Co-chair - University of Birmingham, UK	R	R
Kathleen	Marsaglia*	SEP Co-chair - California State University, Northridge, USA	*	*
Charna	Meth	IODP Science Support Office - Scripps Institution of Oceanography, USA	O	O
Larry	Krissek	JR Facility Board Chair - Ohio State University, USA	R	R
Ursula	Roehl*	ESO Curation and Laboratory Manager - MARUM, Germany	*	*
Gabriele	Uenzelmann-Neben*	ECORD Facility Board Chair - Alfred Wegener Institute, Germany	*	*
Observers		Institution	Day 1	Day 2
Carl	Brenner	USSSP, Lamont-Doherty Earth Observatory of Columbia University, Palisades, USA	R	*
Tsuyoshi	Ishikawa	Kochi Core Center (KCC) - JAMSTEC, Japan	R	R
Yusuke	Kubo	Kochi Core Center (KCC) - JAMSTEC, Japan	R	O
Harue	Masuda	Japan Drilling Earth Science Consortium (J-DESC) - Osaka City University, Japan	O	O
Angelo	Camerlenghi	ESSAC Chair - National Institute of Oceanography and Applied Geophysics(OGS), Italy	O	R
Sarah	Kachovich	Australian and New Zealand International Ocean Discovery Program Consortium(ANZIC) - The Australian National University Australia, Australia	R	O
Ron	Hackney	Australian and New Zealand International Ocean Discovery Program Consortium(ANZIC) - The Australian National University Australia, Australia	O	R
Yangyang	Li	IODP-China Office, Tongji University, China	R	R
Shouting	Tuo	IODP-China Office, Tongji University, China	*	R
Michiko	Yamamoto	IODP Science Support Office - Scripps Institution of Oceanography, USA	O	O

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JAMSTEC		Institution	Day 1	Day 2
Kan	Aoiike	Institute for Marine-Earth Exploration and Engineering MarE3, JAMSTEC, Japan	R	R
Yumi	Ebashi	Institute for Marine-Earth Exploration and Engineering MarE3, JAMSTEC, Japan	O	O
Nobuhisa	Eguchi	Institute for Marine-Earth Exploration and Engineering MarE3, JAMSTEC, Japan	O	O
Fumio	Inagaki	Institute for Marine-Earth Exploration and Engineering MarE3, JAMSTEC, Japan	R	R
Itaru	Kawama	Institute for Marine-Earth Exploration and Engineering MarE3, JAMSTEC, Japan	R	R
Uiko	Kenmotsu	Institute for Marine-Earth Exploration and Engineering MarE3, JAMSTEC, Japan	R	R
Shin'ichi	Kuramoto	Executive Director, JAMSTEC, Japan	O	O
Lena	Maeda	Institute for Marine-Earth Exploration and Engineering MarE3, JAMSTEC, Japan	O	O
Yuichi	Okayama	Institute for Marine-Earth Exploration and Engineering MarE3, JAMSTEC, Japan	R	*
Natsumi	Okutsu	Institute for Marine-Earth Exploration and Engineering MarE3, JAMSTEC, Japan	O	O
Saneatsu	Saito	Institute for Marine-Earth Exploration and Engineering MarE3, JAMSTEC, Japan	O	O
Tomo	Saruhashi	Institute for Marine-Earth Exploration and Engineering MarE3, JAMSTEC, Japan	R	*
Sean	Toczko	Institute for Marine-Earth Exploration and Engineering MarE3, JAMSTEC, Japan	O	O
Hiroyuki	Tojo	Institute for Marine-Earth Exploration and Engineering MarE3, JAMSTEC, Japan	O	O
Takahiro	Yokoyama	Institute for Marine-Earth Exploration and Engineering MarE3, JAMSTEC, Japan	R	*
Ayumi	Yoshimatsu	Institute for Marine-Earth Exploration and Engineering MarE3, JAMSTEC, Japan	*	R
MWJ		Institution	Day 1	Day 2
Akiko	Fuse	Marine Works Japan, Ltd.	O	O
Mika	Saido	Marine Works Japan, Ltd.	O	O

#9 Chikyu IODP Board Meeting
List of Consensus and Action Items

30-31 Aug 2022
Kobe University, Kobe, Japan

CIB_Consensus-0822-01: CIB#9 Agenda

The CIB #9 Agenda is approved.

CIB_Consensus-0822-02: CIB#8 Minutes

The CIB #8 Minutes are approved, with some cosmetic modifications.

CIB_Consensus-0822-03: CAB Nomination

The CIB approves the Nomination of Osamu Ishizuka as new CAB member.

CIB_Consensus-0822-04: KCC Report

The CIB thanks KCC personnel for their efforts in maintaining the core repository at KCC and for their update on KCC activities.

CIB_Consensus-0822-05: Virtual Expeditions

The CIB endorses the efforts of KCC and J-DESC to create a “Virtual Expedition Concept” to fully utilize legacy cores and data to increase the science returns from cores stored at the KCC. CIB also endorses the continued collaboration with JRFB WG on Virtual Expeditions.

CIB_Consensus-0822-06: Core Repositories & Curatorial Policies

The CIB recognizes and supports April 2022 IODP Forum Consensus #9 regarding the current distribution of IODP core storage and curatorial policies.

CIB_Consensus-0822-07: CIB Member Extension

The CIB members (Blackman, Goldberg*, Kopf, Okino) agree, and Chair Seama as well, to extend their current terms to the end of the IODP program in 2024.

* Goldberg will clarify in a month.

CIB_Consensus-0822-08: Chikyu Proposals – SEP Proposal review request

The CIB requests SEP review the science impact of implementing a minimal science plan (w/MarE3) for Proposals 835 and 990. CIB requests that SEP provide the outcome of this review within one month.

CIB_Consensus-0822-09: Chikyu Proposals – CIB implementation Recommendation

CIB recommendation for proposal implementation will consider the SEP review on science impact as well as MarE3 operational concerns. CIB will subsequently recommend implementation and PCT formation.

CIB_Consensus-0822-10: Chikyu Proposals - APL

APL 939 will be considered separately after the proposal implementation recommendation based on CIB_Consensus-0822-09.

CIB_Consensus-0822-11: Active Chikyu Proposals

The CIB supports transferring *Chikyu* proposals currently at the CIB and SEP to a post-2024 scientific ocean drilling program. The transfer process will require proponents, at a minimum, to link scientific objectives to the 2050 Science Framework, a step that can begin now.

CIB_Consensus-0822-12: Post 2024 Scientific Ocean Drilling

The CIB recognizes the critical need for international collaboration and endorses continuing discussions with its current and future partners to move towards implementation of the 2050 Science Framework.

CIB_Consensus-0822-13: Next CIB meeting

The CIB sets the next meeting (*hopefully* in-person) for 7-8 June 2023, in Kobe, Japan.

Action Items**CIB_Action_Item-0822-01: Chikyu Proposals**

The CIB will work with the SSO and MarE3 to ask proponents of *Chikyu* proposals to link to the 2050 Science Framework.

Online E-meeting Consensus**CIB_Consensus-1122-01: JTRACK PCT Membership**

The CIB approved the scientists (Patrick Fulton, James Kirkpatrick, Shuichi Kodaira, James Sample, Michi Strasser, and Kotaro Ujiie) as JTRACK PCT science members. The CIB expects them to work with the MarE3 operation team to create a feasible operation plan and implement IODP Exp. 405 JTRACK, in 2024.

**Chikyu IODP Board #9 meeting
30 – 31 August 2022**

**Hyakunen Kinen-kan, Rokkodai Campus, Kobe University
& On-Line meeting**

Final Minutes

Day-1

Tuesday, 30 August 2022

0900-0905 1. Welcome Remarks (Kawaguchi)

Chair Nobu Seama welcomed everyone to the hybrid meeting, and introduced MarE3 Director General Katsuyoshi Kawaguchi for a greeting message. K. Kawaguchi thanked everyone for participating, especially in person, and said that MarE3 would like to share some good news during the meeting about Chikyu's future. Primarily that the improved commercial contract situation since 2021 for Chikyu has reached a point where MarE3/JAMSTEC are prepared to plan an IODP drilling expedition for FY 2024. Therefore, it would be a key outcome from this meeting to identify the best proposal to be selected for recommendation to the JAMSTEC President for implementation. K. Kawaguchi hoped for a productive and fruitful meeting.

0905-0915 2. Introductions and Logistics (MarE3)

Chair Seama started the introductions for all attendees, and at the conclusion, Nobu Eguchi related that this time there is no specific logistics information to share. The Chair moved to the next item.

0915-0920 3. Approval of Agenda (Seama)

Chair Seama introduced the Agenda, noting that there were two paired items: Chikyu Proposals (**Agenda Item #9 & #13**) and Scientific Ocean Drilling beyond 2024 (**Agenda Item #10 & #15**). Those paired items are set to present important information today allowing the CIB members to consider these items over night. Then, we will have time for discussion on these same items to make decisions tomorrow afternoon, in consideration for the attendees from Europe.

After some short discussion, the suggestions were approved, and the Agenda was amended.

CIB_Consensus-0822-01: CIB#9 Agenda
The CIB #9 Agenda is approved.

0920-0930 4. Approval of Last Meeting Minutes (Seama)

Chair Seama then introduced the minutes from CIB #8 for approval. Donna Black requested some cosmetic changes be made; these were approved for revision.

CIB_Consensus-0822-02: CIB#8 Minutes
The CIB #8 Minutes are approved, with some cosmetic modifications.

0930-0940 5. CIB Action Item Status (Seama)

Chair Seama moved to discuss the status of outstanding Action Items. N. Eguchi explained the two items: First, (**CIB Consensus_0721-06**) is the discussion with the JRFB Chair regarding

implementing JR riserless proposals with DV Chikyu. The second (**CIB Consensus_0721-07**) is the Message for the Riser-Proposal Proponents.

N. Eguchi said that the CIB and JRFB Chairs discussed the implementation of riserless JR proposals by Chikyu; however, the two Chairs met last summer and discovered that no such proposals exist. For the second item, the plan was to send a message to the riser proposal proponents, that in the last CIB meeting, it was decided that there was no time within the remaining IODP program to implement any riser proposals. N. Eguchi apologized for not sending the message yet, but promised it would be done.

0940-0950 12. CIB member Term extension (Seama)

Chair Seama now introduced the discussion about extending the CIB Member's Terms. Since the IODP program will end in 2024, it seems reasonable to extend the current member's terms to match. At the end of the IODP program, a transition period to the next phase of Scientific Ocean Drilling will be needed, so it makes little sense to phase in new members in the interim.

Donna Blackman, Kyoko Okino, Nobu Seama, and Achim Kopf all agreed with the proposed term extension; Achim for at least year by year. Dave Goldberg said he's been discussing this with Nobu Eguchi, and in principle, he is extremely willing to extend; however, he needs to confirm with his other obligations and should have an answer by the end of September.

Kyoko Okino asked about the end of 2024; does this mean that all the CIB members will rotate off, or will there be a new system in place? N. Eguchi said that Agenda Item #10 will discuss this topic in more detail.

The meeting took a break for coffee until 1015.

CIB_Consensus-0822-07: CIB Member Extension

The CIB members (Blackman, Goldberg*, Kopf, Okino) agree, and Chair Seama as well, to extend their current terms to the end of the IODP program in 2024.

* One year extension at this time.

Coffee Break

1015-1215 6. Other FB, IODP Forum, and Agency Activities -1 (Seama)
a. IODP Forum (Brinkhuis)

Chair Seama called for the new Forum Chair, Henk Brinkhuis to give the IODP Forum update.

Henk Brinkhuis began with an expression of sadness over the loss of our dear colleague Dick Kroon; the great response by the community to this sad event was extremely heart-warming. H. Brinkhuis reminded everyone that the Forum is where the funders and the scientists gather to look at the current state of research, but also look forward to the future. Even as the current program draws to a close, the Forum is looking forward to the new Scientific Ocean Drilling program with a sense of excitement. The Japan-ECORD alliance is one such step, and will be discussed in more detail later. Thanks to the efforts of people like Mitch Malone at USIO, the first wave of "post-COVID-19" expeditions have been completed.

H. Brinkhuis gave an update on ICDP, and the development of closer relations with IODP. There is great interest in completing this program and carrying on collaboration in the future, post-IODP world. The announcement by NSF to extend the JR, and also looking at the possibility of

even into the new program, is encouraging. Action point has requested support letters for this, and for NSF's acquisition of a new vessel. There are active discussions from the US on building support for a new international collaborative scientific ocean drilling effort. These discussions have included Indian, ANZIC, Korean, and Chinese IODP partners. There will be a meeting at LDEO, hosted by USSSP Carl Brenner, discussing these efforts.

Chair Seama thanked H. Brinkhuis for his presentation, and called for discussion or questions. There being none, he move to the next agenda item.

b. JR Facility Board

(Krissek)

Larry Krissek gave the JRFB report. L. Krissek showed his slides, and apologized, saying that these will be seen a lot over the next few meetings. He presented the JR FY2024 schedule, and the Summary of Forward-Looking Steps that the JRFB has taken. The operation schedule for FY24 was pretty challenging; NSF provided guidance on scheduling four "low-risk/low-cost" expeditions, in every sense of the words, including clearances for working on foreign territorial waters. Seven of the expeditions were postponed and the fourth may be canceled due to increased operational costs; COVID mitigation, testing at portcalls, as well as inflation and fuels costs. NSF guidance indicated that increased operational costs might require cancelling one expedition. The possibility of JR demobilization at the end of FY 2024 might also affect these expeditions. The JRFB looked to minimize operational difficulties, and recommended these four proposals: 895 (Exp401), 927 (Exp 402), 985 (Exp 403), and 979 (Exp 404); of these proposal 979 will be dropped if one needs to be.

The JRFB and L. Krissek went on to discuss the Forward-Looking Steps JRFB is taking; the note, consensus items, and action items are available on the SSO website. Summarizing these points and consensus items, include applauding the JRFB JRFB, IODP publication, SEP, and EPSP for their efforts to maximize IODP science; even as funding challenges remain. The JRFB recognizes the importance of international collaboration and cooperation in the history of scientific ocean drilling. The JRFB supports efforts to extend JR operations post 2024. SEP and EPSP activities in the future depend on the JR extension, or of the JR is demobilized after FY 2024. In any case, both SEP and EPSP should document their "best practices" developed over the past several years, so that that knowledge can be transferred on into the future of scientific ocean drilling.

If JR operations do get extended from FY2025 to FY2028, JRFB recommends that existing proposals be transferred to the new program. As long as the proponents agree, and an addendum is added, stating how their proposal addresses the 2050 Science Framework. This is consistent with what ECORD Facility Board is already doing and asking the proposals at the JRFB or coming to the JRFB have an addendum stating how that proposal addresses the 2050 Science Framework. If the JR operations are extended and proposals are being transferred, then the JRFB recommends that the proposal maintains its current review or approval status, assuming successful review of the addendum. This would mean that a proposal already at the JRFB would remain at the equivalent of a scheduling facility board. If the JR operations are extending, the JRFB consensus statements recommending that a call for new proposals be made, beginning 1 April 2023. If JR operations are extended, there is a need to have a healthy pool of proposals, ready for scheduling. There's a desire to have enough proposals in a particular geographic area so that the regional ship track approach to scheduling can be maintained.

And finally if JR operations are extended, the JRFB recommends that the vessel continue working in the Atlantic for FY 2025. There are 13 proposals or postponed expeditions, plus 2 APLs

in the Atlantic that are presently at JRFB so that's clearly enough work to keep the JR busy for at least one more year in the Atlantic.

The JRFB also received the draft guidelines, developed by Ken Miller, Charna Meth, and Lisa McNeil, for proposals to address the 2050 Science Framework; these are available on the SSO website.

There was an action item for the JRFB working group on virtual expeditions to begin, and a statement of task and it's had its first meeting and I'll talk more about that in a little more detail on the next slide.

The JRFB approved closing the community Request For Information (RFI), which was opened in late 2020. There was a very strong response from our Japanese colleagues. The request for information responses provided very useful information. However, that has now been superseded by the science mission requirements (SMR) process, so it made sense to close that information request.

L. Krissek returned to the virtual expedition WG discussion. The WG will coordinate its efforts with other groups, such as USAC and also the J-DESC Working Group, that are considering similar topics. The one meeting so far was set to share information about present activities programs and plans for efforts that fall under a general umbrella that might be considered part of what could become a virtual expedition. A second meeting in late September will involve information sharing about the information gathered thus far.

The statement of task for the JRFB is working group on virtual expeditions has two major objectives. First, to define the minimum requirements for research effort to be considered a virtual expedition; advice on this effort provided by Carl Brenner, Angela Slagle, and Charna Meth. The working group is now focused on defining the minimum requirements for what would be considered a virtual expedition.

The second aspect of the statement of task is to develop recommendations for procedures related to the evaluation endorsement, and to maintain the outcomes and scientific legacy of a virtual expedition. What body will review, advise, or evaluate proposals remains to be determined. L. Krissek ended the presentation showing the membership list. L. Krissek is the chair of this effort, and appreciates the opportunity to learn from this experience.

- Daniel Babin is a graduate student at Lamont who's doing data mining for his dissertation.
- Amelia Shevenell, at University of South Florida, is a member of the JRFB.
- Laurel Childress at the JRSO is involved in a project with data mining.
- Hugh Daigle at the University of Texas also doing a project involving data mining.
- Susan Humphries Woods Hole is very well versed in all aspects of scientific ocean drilling.

Ex-officio members of the working group include:

- Beth Christiansen from Rowan University in the US. Many of you are probably aware of the fact that Beth has been thinking about the idea of virtual expeditions for a number of years. She's a very important contributor to this group.
- Gail Christensen from NSF will be providing some input from the funding agency perspective.
- Sarah Kachovich at ANZIC,
- Charna Meth from the science support office,

- Angela Slagle from the US science Support Program,
- Junichiro Kuroda, who is involved with the J-DESC Working Group on virtual expeditions.
- Angelo from the ECORD side,
- Yangyang Li from China and
- Dhananjai Pandey from India.

L. Krissek ended his presentation with a call for questions.

N. Eguchi asked when the JR extension will be approved, to which L. Krissek responded that it hasn't been decided yet. There are internal discussions happening at NSF, but there has been no official response. L. Krissek said the JRFB is as in the dark as anyone else on this.

L. Krissek noted that Donna Black asked via chat about how many RFI were received? L. Krissek believed there were somewhere between 150 and 200 responses that came in: more or less equal numbers (70?) were from our colleagues in Japan, ECORD, and the US science community. This very strong response was very helpful for laying out some of the groundwork that helped us design the process for developing the SMRs, so the strength of the responses from our international colleagues provided information that we could stress over and over again about the importance and value of international collaboration in scientific ocean drilling.

With no further questions or comments, Chair Seama moved on to the next item.

c. ECORD Facility Board

(Camoin)

Gilbert Camoin began by apologizing for not being able to travel to Japan, since his schedule was too tight. G. Camoin described the current EFB membership situation. Science Board members, Yamada & Wang are rotating off soon. Call for application released, and maybe Angelo can give us some news later.

G. Camoin presented the MSP 2014-2024 operational plan. Japan Trench Exp. 386 was successfully completed. Exp. 377 was ready to go, but due to geopolitical issues with the Russian Federation, has been postponed. Exp. 389 Hawaiian Reefs ready to go in 2023 (Sept-Oct). We will have another window for SOD in 2024.

There are 4 candidates for 2024. Exp. 377 is doubtful for rescheduling. Proposal 730 (Sabine Bank) PI has retired, and might be replaced by either Exp. 373 Antarctic Cenozoic Paleoenvironment and #637 New England Shelf Hydrogeology are waiting for an opportunity to be scheduled. There are 6 proposals at SEP for 2024, post IODP, expeditions. Proactive efforts are being made for proposals since 2021. G. Camoin said that there are three exploratory workshops & nine regular workshops to initiate proposal creation. These include proposals not only for the MSP, but also for the JR & Chikyu. ECORD has six potential proposals for post 2024 Scientific Ocean Drilling MSP expeditions.

Magellan Plus WS (ECORD-ICDP) has 5 workshop proposals. This is very promising, because it shows that there is a large effort to produce proposals for the new program.

G. Camoin ended the ECORD FB section by saying that the next EFB will be in September, in Aix-en-Provence.

d. ECORD

(Camoin)

Gilbert Camoin then began the ECORD report, by saying that this will be a short presentation. FY 2024 is being considered as an "option" year for the JR, with the ECORD MoU extended through 2024, at the current funding levels (which are almost confirmed). The extension of terms of the ECORD entities: ESO, ESSAC, and BCR, will continue through 2024. G. Camoin emphasized that nothing will change on the ECORD side until the end of the current program. ECORD is working on an addendum to cover the work through 2024.

G. Camoin said that contacts are being re-initiated with past members to see about bringing them back into ECORD. Other new partnerships being discussed. ECORD council chair and other leadership discussed and listed. Angelo will stay in place until the end of 2024. Tony Morris will also stay.

ECORD partnership extensions with US & Japan partners in 2025-2028 period. Have been communicating with NSF, nothing to report just yet. This also applies for the ECORD-JAMSTEC extension, but this is moving forward.

G. Camoin noted the following upcoming meetings planned within ECORD:

- ESSAC mtg in 14 Nov Gargonza Italy
- Post 2024-ECORD MoU
- ECORD-Japan SOD Program
- Developments of the MSP concept; proposal guidelines, funding, & staffing.
- ECORD participation in future SOD.

Chair Seama asked for questions or comments; Angelo Camerlenghi pointed out that 2 more EFB applications were expected before the deadline. G. Camoin, agreed, saying that they were expecting a full international membership.

Masa Kinoshita was curious about the Magellan Plus WS; were all the WS supported by ECORD? G. Camoin said yes – but sometimes other sources of support were included as well. ECORD grants 15,000 Euro, which usually is enough. They also have some funds to support ECORD scientists traveling to attend WS in other countries. There may also be funds available for the ECORD-Japan collaboration, but that A. Camerlenghi would discuss this later.

With no other comments or discussion, Chair Seama moved on to the ANZIC report by Ron Hackney.

f. NSF

(Allan)

There was no presentation for this section.

g. ANZIC

(Hockney)

Ron Hackney began with a brief update on ANZIC's recent activity & staffing. They are pleased to have participation in 13 expeditions, and are looking forward to 2024. ANZIC is also thankful for the opportunities for young scientist participants in the various ECORD summer schools. ANZIC was thankful that the ANZIC Master Class gave us an opportunity to give something back to the program. In April, the program manager Sarah Kachovich organized the ANZIC "Forum of Opportunity", where 30-40 people attended from Australia and New Zealand.

R. Hackney went on to discuss ANZICs' Key Priorities. ANZIC is maintaining high level of participation in scientific ocean drilling. They are examining how to support more ANZIC pre-proposals, especially in terms of looking at streamlining and demystifying the process. Some key goals are to broaden ANZIC engagement, and to better the collaboration between the Australia & New Zealand communities.

R. Hackney said ANZIC was happy with the response to the US SODA (156) and NSF letters of support (5). The community is closely following the US discussions on acquiring a new drillship. ANZIC sees a strong appetite for WS on proposal preparation, especially the new need for WS on Flagship Initiative proposals. Australia and New Zealand have a lot of offshore data, and we need to work on better ways to make these data easier to find and more accessible.

R. Hackney said ANZIC is developing stronger connections with international partners, especially on sharing the use of Australian research platforms, especially after 2025. Site Survey data - how to find & access existing data, especially the openfile data around Australia and New Zealand should be better utilized.

R. Hackney spoke about ANZIC's current status. There is a strong community across the national partners, with universities and other consortia. At the Australian National University, Sarah Kachovich, Program manager, has a lot of energy and ideas for maintaining and expanding the program's efforts. ANZIC is looking to expanding Australian government support. The current Research Council scheme is not very sustainable; on the other hand, the NCRIS seems to be better fit for the kind of support ANZIC needs, and is usually set on a 5-year rolling basis. R. Hackney mentioned that there has been a delay in getting this moved forward; there's been a recent (positive) change in government, so the environment looks more favorable. Up to now, ANZIC hasn't been mentioned in the Investment Research plan, but we were included in the last report.

R. Hackney said that on the New Zealand side, the funding situation is unchanged, for IODP and ICDP drilling, and they expect to continue their support for those efforts.

On the last slide, R. Hackney shared some of the ANZIC challenges for the future, these aren't for discussion here, but just to bring the CIB up to date.

- What will the future membership going to look like? Will there be multiple streams?
- How much is needed to cover this for membership?
- How many expeditions are being considered per year?
- Is ANZIC going to have to pick or choose a stream, based on available funding?

R. Hackney noted that the past success of the program rests on 50 years of international collaboration. R. Hackney asked for questions. D. Goldberg asked for clarification on "streams"; does this mean a ocean drilling program to join? R. Hackney, said yes, exactly.

h. PMOs

J-DESC

(Masuda)

Harue Masuda, IODP Chair of J-DESC, gave the J-DESC report. H. Masuda showed the structure of J-DESC, with three groups working on a future program. The legacy core/data task team, similar to JRFB's task team, is working under Kuroda-san's leadership, concerning with.

H. Masuda showed recent J-DESC participation in IODP expeditions: 19 scientists, including 8 onshore science party members, participated in 6 IODP expeditions in FY2022. H. Masuda also mentioned the 2 graduate students who sailed on the SCORE program. Five scientists participated in expedition-related meetings.

H. Masuda introduced the J-DESC education efforts. SCORE began in 2017, based on J-DESC scientist applications; although this is outside the IODP program. On the recommendation of the CIB Chair Seama, graduate students were allowed to apply on their own. In 2021, six students sailed on SCORE, two of whom subsequently applied for, and sailed on, IODP expeditions. This shows the effectiveness of SCORE in making scientific drilling accessible to young researchers and scientists.

J-DESC also holds a core school at KCC for graduate, undergraduate, and young scientists; unfortunately, COVID-19 set a pause on the school. This year, H. Masuda was happy to report, J-DESC was able to hold a Basic Core Analysis Course, with 12 participants. However, COVID-19 caused another planned core school to be postponed until next March. J-DESC supports travel costs for students to sample cores at the Kochi Core Center. Because of COVID-19, only 1 student was supported, J-DESC is hoping to see more students visiting KCC to take samples for their own research.

H. Masuda shared that J-DESC has been holding promotional events and making videos to promote IODP and drilling science. J-DESC held a workshop and a symposium this past March for the science community. This workshop shared the post-IODP situation and discussed the future of scientific ocean drilling projects. Many early-career scientists and students actively participated in the online event, with 275 participants joining on ZOOM.

H. Masuda then discussed the public symposiums on scientific drilling held to target students interested in the ocean drilling program and government officials. Lectures were held on a wide range of themes such as earthquake and volcanic hazards, climate change, and the deep biosphere; all of which are main IODP targets.

Finally, H. Masuda discussed the promotional video they created, was released this March in Japanese; an English version is being produced for distribution to a wider audience.

Chair Seama asked if there were any questions; none, so moved to the next Agenda Item.

USSSP

(Brenner)

Carl Brenner began by saying he was sorry to have missed traveling to Kobe, Japan. Today, C. Brenner wanted to focus on two main points. First is the USSSP efforts to develop Science Mission Requirements (SMR) for a new US riserless drilling vessel. The second is about a new initiative within USSSP for what we call “novel projects”.

C. Brenner said the National Science Foundation sent USSSP a letter of request for assistance to develop mission requirements potentially for a new drilling vessel or some kind of future platform. This letter of request asked the US drilling community to prioritize science objectives and initiatives to prioritize regions of operations, and then to define the required vessel design characteristics to meet these priorities. NSF would refer to these to inform an internal conceptual design process, that is, the design of a new vessel. The SMRs would guide internal and external reviews by NSF while considering the possibility of building a new vessel, or other options.

C. Brenner said that NSF specified hard requirements; One was for rapid mobilization and demobilization between drill sites, and the second was to look at this in the context of an inflation adjusted cost structure, like the JR budget. NSF also specified that actual ice breaking capability was not needed, but a strengthened hull could be considered. NSF also did not require shallow water (<70 m) water depth capability, and no need for continuous LWD, either.

USSSP began by putting together a steering committee of 15 people; the Co-chairs are Brandon Dugan from the Colorado School of Mines and Becky Robinson, the current USSSAC chair from the University of Rhode Island. The first step was to initiate an online survey of the US community, to be followed by virtual online, workshops. The initial letter from NSF asked us to consider an in-person, hybrid, workshop. C. Brenner said that it made better sense to run a number of virtual workshops first (five), then hold an in-person SMR workshop, which took place in May in Chicago.

C. Brenner shared some of the survey results. One of the questions asked the respondents which two strategic objectives from the 2050 framework they were most interested in. USSSP found that our community is focused on climate issues. The top two strategic objectives were Earth's climate system (ca. 50% of respondents), and the second was tipping points in Earth's history, which also has a strong climate component. One of the interesting result was that by career stage, the student respondents were focused on climate system, and senior scientists skewed a bit more towards tipping points.

USSSP then asked which flagship initiative they are most excited to address, and again, ground-truthing future climate change, came first. The one with the least response was diagnosing ocean health, a new one. C. Brenner felt that there isn't yet a developed community within the US to look at this issue, but, we'll be working on that as the decade unfolds.

Then, USSSP asked which of the science frameworks, or enabling elements, researchers were most interested in. The top enabling element was Broader Impacts and secondly, Land to Sea. USSSP also asked about what regions of operation the community was most interested in. Not surprisingly, the Pacific Ocean was the ocean cited most frequently as being of interest to the US community. The main takeaway here is that our community has a strong interest in global science, and that high latitudes are a particular priority within our community.

C. Brenner said the next workshop, the US workshop in 2019, that fed into the development of the Science Framework, had many hours of discussion about the possibility of a new drill ship and a couple of ideas were raised even back then. Some of the conclusions that emerged from that was that we needed a modern drill rig with active heave compensation for fast and effective operations. Others included continuous coring and wireline logging, and storage for 9000 meter drill string, global operation for 10-11 months a year and berthing capabilities for at least 120 people.

C. Brenner said the Virtual Workshops explored technological capabilities and highlighted the science gains that could be accomplished with a new riserless drilling vessel. The main outcome of these Workshops was getting input from international and national engineering and technical experts to provide a reality check on our community. C. Brenner said we needed to have people advising us on what was feasible, both budgetary and technically.

C. Brenner said the in-person workshop took this input and prioritized the science, as well as the required technology and regions of operation, and then outlined the criteria that define when a given expedition will have achieved its science goals, that is, success parameters, and then discuss what the community would lose without a new riserless drilling vessel. Some of the main themes emerging from the in-person workshop was that community wants to work in locations that really been explored yet; high latitudes, deeper water depths, and deeper beneath the sea floor. The community also wants cores that are representative of the target geology and microbiology, and focus on recovering types of sentiments that have been difficult in the past. More down-hole work, including logging the upper 5200 meters below the sea floor and implementing a range of tools for in-situ measurements, and installing observatories to collect time series down-hole measurements.

C. Brenner said two types of requirements emerged in the draft report, defined in two ways: One, Foundational Requirements, and these are base level capabilities, i.e., must haves; and then Primary Requirements providing scientific value to these foundational SMRs in terms of data generation and capability to work with the generated data.

So there were seven foundational requirements that emerged:

- First, a modern safety and environmental standards to minimize the programs' environmental footprint.
- Ability to sample a range of locations and water depths from mid continental shelf to abyss, and ice strengthened hull for work in high latitude environments.
- Good heave compensation, dynamic positioning, and drill pipe stability to improve core recovery.
- Modern mud and cement casing setting systems.
- High quality core and continuous cores from key environments, including high latitudes mixed matrix, sands, sediment, crust, as well as deep sediments.
- Then good onboard measurement capabilities for safety and decision making and time sensitive measurements of properties that are ephemeral, and then
- Personnel to make sure that all of these things can be done properly.

The primary requirements.

- Appropriate space for sample and data preservation,
- Minimizing contamination,
- Downhole logging and measurements,
- Expanding the use of observatories over the side capabilities for remotely operated vehicles, etc.,
- Reliable and consistent Ship to Shore communications, as well as communications on the ship, and,
- Flexibility in space aboard.

C. Brenner said the draft report has been posted online for comments by the community; from NSF's initial request, the emphasis has been on the US community, for a US led drilling program, but our community is very interested in continuing to collaborate internationally with all of our scientists colleagues. Therefore USSSP opened this report for comments by both our domestic and international community. This can be found on the iodp.org website, and the deadline for commenting and on the draft report is mid-September. USSSP will submit this report to NSF around October 1.

C. Brenner now introduced the "novel projects" initiative; so many are aware that the budget is constructed to include a large percentage going towards salary support for US scientists going to sea; during the pandemic, this was not very large. NSF gave USSSP some flexibility with the resulting excess funds accumulated, so USSSP decided to initiate a program of the types of science support not historically done.

USSSP science support has funded scientist salaries and a bit of post-expedition funds, the post expedition activity awards (PDA's). There are pre-drilling activities and USSSP supports workshops; USSSP has never supported general ocean drilling science projects not linked to a specific expedition, past or present. USSSP is thinking that a trial might be useful, especially with the possibility of there being a hiatus in US-led scientific ocean drilling. C. Brenner said there's a lot of legacy data that can be utilized for science work, and these projects could be funded.

USSSP issued a general RFP late last year in the fall, just asking for proposals for novel projects and supportive scientific ocean drilling. USSSP got a very strong response from the community, and gratifyingly quite a few of the lead PI's were early and mid-career scientists. The proposal topics, focused on legacy data, outreach and communication, and also career development for younger scientists in our community. C. Brenner presented a listing of the proposals that have been funded. Many of these funded proposals use legacy data, focus on career development, and diversity within our community. The science topics, range from the theoretical to the super practical from the specific to the broad.

C. Brenner said that USSSP thanks, and is humbled by, the international community for their response to this effort. He asked for questions or comments.

Ron Hackney asked C. Brenner if the survey results mentioned are on a website or published where they can be seen? C. Brenner said USSSP intends to publish the results in the workshop report, but they could be made available earlier.

Larry Krissek wished to point out that the SMR recommendation was an ability to deal with 13 feet of heave, not 13 m.

With no other comments or questions, Chair Seama moved on to the next Agenda Item.

ESSAC

(Camerlenghi)

Angelo Camerlenghi began by reminding everyone that ESSAC moved from Plymouth to Trieste in Jan 2022, and that he is the new chair, and Antony Morris is the vice-chair, with Hanno Kinkle now working from Trieste.

ESSAC resumed activity after the pandemics, and is very pleased with the requests to join expeditions by our communities. These special calls give ESSAC scientists many opportunities to join expeditions.

Angelo Camerlenghi then described the list of available support from ESSAC. He added that the last 2 years of no travel has seemed to show people are used to staying home rather than moving to join meetings in person. A. Camerlenghi listed the three annual ECORD schools: Bremen (ECORD Summer School), Urbino (Paleoclimatology), and Leicester (Downhole Logging), all organized with support from ESSAC. The second year, ESSAC held a Glacial sedimentation (GLASS) in Oregon (OSU), because of increased interest in research in polar regions.

An. Camerlenghi also listed the ESSAC-J-DESC joint initiatives (webinars still online). The ECORD-Japan WS Working Group has a Steering Committee for enhancing collaboration on Science Framework 2050 theme coverage, this to be inclusive of all other SOD partners, and he presented the list of Steering committee members. The WS will not be strictly based on Flagship Initiatives: the 1st to be online, the 2nd to be in-person next year, time to be determined.

An. Camerlenghi also listed the plans for EGU 2023 - Achievements & Perspectives in SOD and CSD - Joint ECORD-ICDP. This has been moved from SSP (Stratigraphy, Sedimentology & Paleontology) to Inter- and Transdisciplinary Sessions (ITS), which seems to be a better fit.

An. Camerlenghi asked if there were any comments or questions; with none, Chair Seama broke for lunch.

LUNCH

1330-1350 7. JR Advisory Panels Report/Proposal Overview

a. Science Support Office

(Meth)

Charna Meth, the director of the SSO, described their mission to support SEP, the JRFB, and other panels, the IODP Forum, etc. C. Meth listed the SSO highlights, adding a "Post-IODP Planning" Section, for Panel and Proposal Support for the new framework. There have been three external reviews. They are currently supporting draft write-ups of proposal guidelines.

C. Meth described the work in improving the SSO-managed databases: SSDB & PDB. There is also an improved EPSP meeting tool, and they implemented new seg-y header formatting requirements.

C. Meth described the proposals submitted since 1 Oct 2013 (slide details); for more details, C. Meth suggested contacting SSO if needed. There are 180 new proposals, 54% declined, 19% now in active review at SEP. C. Meth shared a slide giving the current status of all proposals: 94 active proposals, mostly in Climate & Ocean theme, and then Earth Connections. C. Meth provided a breakdown by challenges & then by Oceans. C. Meth shared the proposal submission history, including active proposals by stage & category. C. Meth showed the affiliation of lead PI by proposal, with 11 from Japan. In terms of active proposals by membership, the numbers are US > ECORD > Japan. There are 11 Proposals to use *Chikyu*. C. Meth showed the country/ship request proposals, and then a map of the CIB proposals (*Chikyu*), and for JRFB, EFB, and at SEP.

C. Meth ended asking if there were any detailed questions.

Masa Kinoshita asked to clarify the meaning of "Active proponents", and C. Meth answered with "Proponents on Active proposals".

Chair Seama asked if there were any detailed questions, and confirmed that there were none, so moved on to the next Agenda Item.

b. Science Evaluation Panel

(Reston)

Tim Reston, Chair of the SEP, greeted everyone, and introduced the co-chair, Kathie Marsaglia. T. Reston gave an overview of the SEP operations, proposal outcomes, and comments on *Chikyu* proposals, of which there are three.

T. Reston provided some more SEP panel Updates, with a WD breakdown by task. T. Reston discussed the review procedures, and the Site Classification System (data review on site survey). T. Reston shared that most meetings have been virtual since the start of COVID.

T. Reston shared SEP outcomes since June 2019; Huyga-nada Observatory was recommended for Full proposal, and then revision in the Jan. 2021 meeting. The Susumino Hawaii proposal was recommended for revision in Jan. 2021. The Atsushi Matsuoka proposal was declined.

990 Full-2 sent for external Review (Rie Nakata Hyuga-nada)

June 2022 990-Full-2 in the holding bin.

T. Reston shared an update on the list of proposals at or coming to the CIB:

- 805 - Mohole to Mantle - no Chikyu component since 2017
- 857 - DREAM JR component - Chikyu component is deactivated
- 876 - Bend-Fault - full proposal not received
- 898 - Rise Arc Mohole-to-Mantle Full proposal not revised.

T. Reston presented the full history of proposals, and then presented the map of *Chikyu* proposals at the FB. He ended asking if there were any questions?

Chair Seama also asked if there were any questions or comments? The Chair moved on to the next Agenda Item.

1350-1420 8. Chikyu Operation/Status Update (MarE3)
a. Overall Chikyu Operation
b. Budgetary projection for FY2024 operation

Hiroyuki Tojo gave the talk on the budgetary projection for FY2024 Operations. *Chikyu* has been unable to conduct IODP ops for a few years, but now there is some budget saved. H. Tojo summarized the CIB 2021 *Chikyu* finance points. H. Tojo reminded everyone of the *Chikyu* funding chart; Basic Cost supplied by Japanese govt, Commercial drilling to earn funds and tech knowhow for SOD. However, the Global market has been weak. The certificate of compliance (COC) for the riser & BOP has been suspended, to save costs.

H. Tojo described the PFI plan, but a final decision is still waiting on JAMSTEC upper management. H. Tojo shared a diagram of the various *Chikyu* funding streams. The summary is that the budgetary projection for FY2024 is 20 MUSD. Japanese Govt support continues with no change. The Global market is slow, with little opportunity for *Chikyu*; however, the domestic market for Methane Hydrates drilling is confirmed (2021-2023), and provides the opportunity to accumulate funds. Efforts to reduce costs, includes rationalizing basic costs, while maintaining SOD capability. However JP Yen fluctuations, fuels costs etc., are negative drivers here.

The New Strategy directive from JAMSTEC management is to reboot the PFI, especially since the general situation has changed since last effort, so these need to be reviewed.

H. Tojo showed a tentative *Chikyu* schedule, i.e., long term planning. Commercial operations in Green and Orange, while a FY2024 window is open for SOD under current the IODP program.

Chair Seama was happy to hear that a budget for an IODP expedition exists. Dave Greenberg asked if the expected funding stream is over three years. Will this mean that the COC suspension continues? H. Tojo replied that yes, while the market situation is getting stronger, COC support might be provided, but this is unclear at the moment. Nobu Eguchi reminded everyone that the COC is not needed for the domestic market, and that everyone should keep the 20M USD figure in mind.

Chair Seama suggested that the CIB discuss Item #11 now before the coffee break, and move it from tomorrow, if that is acceptable? With no objections, Agenda Item #11 was next.

1400-1420 11. KCC Report (Hirose)

Takehiro Hirose, a director of Kochi KCC/JAMSTEC, gave the KCC report. T. Hirose began with a recap of the review of KCC tasks & responsibilities presented at every CIB. The KCC cores have reached ca. 146 km of cores, slightly increased since last year. This had gradually increased year-on-year until after 2019, when JR left the KCC repository region of responsibility; therefore new core delivery was limited. T. Hirose described the new influx of core from IODP Exp. 371, and

the anticipated delivery of IODP Exp. 386 giant piston cores after the shore-based sampling party aboard *Chikyu* in November 2022. KCC also expects another shipment from Exp. 392, conducted in February to April this year. These cores are still in the US and shipment schedule has not been determined yet.

T. Hirose related that at the last CIB meeting, KCC reported that reefer capacity was approaching to the maximum limit, and they proposed building a new reefer. Instead, KCC put higher priority on modifying the old reefers, especially since the delivery of new cores is expected to be limited for the next several years. The plan is to install the protection tool TSUNAMI hazard, to replace the old freezer unit. With this modification, we can utilize the current facility in more efficient way. We are now proposing the funding for this modification.

T. Hirose presented a summary of the KCC sample requests, distinguishing legacy cores and IODP cores. There was a slight drop of in 2020 due to COVID-19, but it recovered last year, with the number of sample requests returning to regular numbers. The number of visitors, on the hand, remains low. Up to 2019, KCC had about 40 visitors per year (half Japanese and half international visitors); after that, there were only ca. 10 visitors a year from Japan. I hope we can improve this.

T. Hirose mentioned that except for the COVID-19 effects discussed, there have been no big changes since the last CIB meeting, and operations have almost returned to normal. KCC was able to finally hold a core school this month as presented by Masuda-san.

T. Hirose introduced a new topic, based on the last IODP forum's consensus statement on using legacy cores for "virtual expeditions". KCC and J-DESC are still in the brainstorming stage of what such a new system would look like. T. Hirose recognized that this concept was presented earlier this morning; KCC hopes to present a more detailed plan at the next CIB meeting. This of course assumes that the legacy and IODP cores will remain at KCC. KCC hopes to continue servicing the core repository and providing community support as shown in the forum consensus here. KCC expects that *Chikyu* cores will stay in KCC, as those are JAMSTEC property, but KCC need more discussion with ESO and NSF to make an official agreement in the near future.

T. Hirose ended with a slide on the membership of the curatorial advisory board. One board member, Dr. Takeshi Sano, will be rotating off. The three depository curators have been discussing replacement members, and have agreed to nominate Dr. Osamu Ishizuka. Dr. Ishizuka is a petrologist, and has been co-chief twice; making him a good replacement for Dr. Sano. T. Hirose indicated that this is properly a science support office issue, so he asked C. Meth if she had any additional information to share.

Charna Meth said the SSO had discussed this with the curatorial advisory board. After the IODP curators discuss and recommend a candidate for nomination, the next step is for each of the facility boards to approve or reject any nominations. So this comes to CIB as well as the JRFB and EFB for discussion.

Masa Kinoshita asked which institution is taking a lead on this virtual expedition concept. JAMSTEC or Kochi university or both? T. Hirose was not sure, and asked KCC Yusuke Kubo for additional comments. Y. Kubo responded that this is still at the brainstorming stage so we are not sure who will be the real host, either Kochi university or JAMSTEC, or possibly some other entity.

Sanny Saito added that about one year ago, J-DESC established the virtual expedition working group. KCC was independently thinking about how to utilize legacy material. Recently KCC and J-DESC worked together, based on the JRFB working group activity. The Japanese community, including J-DESC and KCC, are exchanging information with the other facility boards.

M. Kinoshita asked if when you say "KCC", does that mean the kind of combination of both KCC and Kochi University? T. Hirose agreed.

Chair Seama asked if there were any other questions and comments? With none, he moved to discuss the nomination of CAB new members; the CV of Dr. Ishizuka has been provided to the participants. Were there any comments or objections?

David Goldberg wanted to confirm if this is the recommendation of the group that C. Meth was talking about? C. Meth agreed, but said that this is still a confidential matter, until the other facility boards have a chance to meet and discuss this nomination.

Chair Seama noted that there were no objections to the nomination and moved to break.

CIB_Consensus-0822-03: CAB Nomination

The CIB approves the Nomination of Osamu Ishizuka as new CAB member.

CIB_Consensus-0822-04: KCC Report

The CIB thanks KCC personnel for their efforts in maintaining the core repository at KCC and for their update on KCC activities.

CIB_Consensus-0822-05: Virtual Expeditions

The CIB endorses the efforts of KCC and J-DESC to create a "Virtual Expedition Concept" to fully utilize legacy cores and data to increase the science returns from cores stored at the KCC. CIB also endorses the continued collaboration with JRFB WG on Virtual Expeditions.

CIB_Consensus-0822-06: Core Repositories & Curatorial Policies

The CIB recognizes and supports April 2022 IODP Forum Consensus #9 regarding the current distribution of IODP core storage and curatorial policies.

Coffee Break

1500-1600 9. Chikyu Proposals -1

(Seama)

a. Potential Chikyu Proposals at CIB and SEP

Chair Seama noted that Takehiro Hirose, Achim Kopf, Masa Kinoshita, and Sanny Saito were all COI for this discussion, so would recuse themselves until the MarE3 Operation summary discussion. Chair Seama then began the new discussion. From Agenda Item #8, there is 20M USD for IODP expeditions in FY2024. Chair Seama suggested defining criteria to help shaping proposal ranking first before looking into individual proposals. After some discussion, several criteria were listed.

Chair Seama said this discussion clarifies that there three proposals here are the only ones to discuss for implementation. He asked T. Reston to give a brief overview of the three, and that detailed discussion tomorrow would finalize the CIB decision.

T. Reston began with describing the three proposals: 835-Full2 Tsunamigenesis (JTRACK), forwarded to the CIB & rated excellent; 939-APL3 Tohoku Petit-Spot, forwarded to CIB in Jan 2020; and 990-Full2 990-Add2 Hyuga-nada Observatory, forwarded to CIB and rated excellent in Aug 2022.

T. Reston added some detail on the proposals. JTRACK has a 2 hole transect, one in high slip, one in low slip during the Tohoku quake, and listed the objectives. PI is Shuichi Kodaira. There are four drill sites (& observatory). He shared the reviewer comments.

T. Reston then provided more detail on the Petit-Spot Magmatism APL. Petit-Spots being monogenetic volcanoes. He listed the hypothesis & science targets listed. There are a series of sites - 40-80 m of sediments, 100 m of basement coring.

T. Reston finished with the Hyuga-Naga Observatory. This fits the current Science Plan and the Science Framework 2050. He discussed the drilling targets and provided a more detailed map of the science target, showing primary and secondary sites. The SEP discussed this as a natural laboratory.

Discussion touched on the length of the APL, and also the responsiveness of the various proponents. D. Goldberg noted that the J-TRACK proponents have been responsive, to which N. Eguchi replied that this as true from the operator standpoint as well.

With no other comments or discussion, Chair Seama moved that the discussion move on to the next Agenda Item.

b. Operation summary of proposals (Eguchi)

Nobu Eguchi decided to begin with a discussion on J-TRACK, and then Hyuga-Nada. N. Eguchi noted that the J-TRACK proposal has two transects, as T. Reston spoke of. Each of the tracks require LWD and coring, and one observatory. The water depth is greater than 6900 m, and TDs range from 980 to 450 mbsf. Coring requirements require new holes, as Chikyu can't re-enter holes at that depth. N. Eguchi then presented an operational diagram for J-TRACK; underwater TV could be used for the shallower drillsites, the deeper, northerly sites at >7000 m water depth would have to be spudded blindly. N. Eguchi then presented the operational diagram for the observatory. For coring operations, the time estimate is 4-7 hr per core, at 9.5 m advance, due to the extreme water depth. The overall time estimate and costs, per hole, were displayed in a table. Drilling all sites would take 141 days and cost 39.7M USD. MarE3's concerns were about hole re-entry and heave issues for deep water drill pipe (DP) configuration. If the BHA gets lost in the hole, recovery would be needed. Low ROP expected in chert layers, and possible stuck-pipe risk in the fault zone. The other concern was the lack of any 7000 m-class ROV at JAMSTEC. Mitch Malone asked if the same triple string configuration used in J-FAST would be used here? N. Eguchi affirmed this, but the configuration would be modified to match operational needs.

Next, N. Eguchi described the Petit-Spot APL, with similar requirements. N. Eguchi showed the operational diagram for this, noting that the UWTV could be used. Total estimated time 17.5 days and 2.6M USD; although this exceeds the JR APL definition, time-wise, *Chikyu* accepts this.

Finally, N. Eguchi described the Hyuga-Nada OBS proposal. This also includes LWD, coring, and observatory installation. Here, deepest WD is 3000 m, with coring TDs to 900 and 450 m. The operational diagram was shown; the 3000 m site is beyond ROV depth, and the observatory requires cementing, a more complicated installation. Here, there were two options for estimating time and costs, Plan A and Plan B. Plan A (5 sites) requires 112 days and 28.6M USD, while Plan B (3 sites) needs 59 days and 17.7M USD. These costs do not include observatory materials. The MarE3 operation concerns include the Kuroshio current, wellbore breakouts, typhoons, and cold front passages. Fishing area permission would be needed, and submarine cables near two sites are also an issue. There is also a marine military training area that needs to be avoided.

David Goldberg asked about the Full proposals, especially the various options – had these been considered by SEP? T. Reston said no. N. Eguchi noted that for the J-TRACK proposal, the PIs indicated that not all the sites need to be drilled at once. T. Reston noted that one reviewer said the slow-slip site was a bit ill-defined.

Chair Seama asked if there were any more questions about the operational review. With none, he reminded the CIB that we will be discussing these 3 proposals tomorrow to finalize the CIB decision and moved to cover the last item; Agenda Item #10.

1600-1700 10. Scientific Ocean Drilling beyond 2024 -1

a. ECORD-Japan New SOD program

Nobu Eguchi started, describing the SOD beyond 2024, the ECORD-Japan concept. There have been 10 meetings, with another planned for Sept. N. Eguchi showed the WG membership,

while Angelo Camerlenghi had previously shown the WS WG membership. This effort was motivated by Japan-ECORD building a joint SOD program, that is a program more or less the same as for IODP. This effort follows the SF2050, remaining open & flexible (as described).

N. Eguchi showed that a single joint operational advisory committee, instead of a FB, to discuss operations for both operators. There is an MoU in development, with the WG working on Terms of Reference. This new effort will need SEP, SSO, and EPSP. The overall concept is to form an alliance with other, to-be-decided SOD programs, and to use the above panels together. However, this seems to have been rejected by NSF, so this is still being worked on.

N. Eguchi said a future schedule is being drafted, as well as with potential collaborative partners (ANZIC, etc.). The MoUs will be drafted and set in place to begin in 2025. Gilbert Camoin will show these details.

Gilbert Camoin started by discussing the need for an MSP in scientific ocean drilling; to complement JR & Chikyu and reach environments previously out of reach (ice regions, very shallow, etc). These requirements were needed in both phases of IODP, especially in introducing new technologies to IODP (lift boats, seabed drills, GPC). G. Camoin gave an overview of MSPs, highlighting the capability and flexibility of this approach. One key element being the off-shore and on-shore phases, allowing for the expansion of SOD to new technologies, new drilling environments, and new logistical methods. The MSP, G. Camoin noted, matches the Science Framework WG discussions, and complements SOD from land to deep sea targets. The new partnership to encourage collaboration with other programs, specifically the Land-2-Sea concept. G. Camoin noted that the Magellan Plus WS already anticipate that the MSP will be key to the new SOD effort from 2025.

G. Camoin introduced some key thoughts needing discussion with the group about the new Japan-ECORD program. The duration of the MSP proposals are flexible - 1 month, 2-3 weeks, can be considered. There are 3 different implementation plans: 1. Basic, 2. Intermediate, 3. Full plan. Although these are already in the current plan, they need to be carried over to the new program.

G. Camoin said the support of currently existing panels and support offices are needed, and also gave a list of new implementational approaches; the efforts between programs and other institutions need to be combined. Staffing will be limited to 30 personnel, this can be more dynamic (e.g. the current onshore & offshore teams) with a new category during the moratorium period to maximize the science results from each expedition.

G. Camoin talked about funding, including cash and in-kind-contributions (IKC), to make this even more attractive for future potential partners - short or long-term. However, IKC cannot include site surveys, 3rd party tools, or any costs that ESO would not normally cover. IKC could be rewarded with extra positions on any expedition.

G. Camoin concluded by noting that the MSP can continue to offer SOD to a full range of geographic areas, drilling depths, environments, and science targets. There is no infrastructure to be maintained, technology can be adopted/adapted as needed to achieve scientific targets, and it maintains operational flexibility.

Henk Brinkhuis asked how many expeditions are expected per year? G. Camoin said this depends, but 2 to 3 expeditions per year should be possible. Henk followed up by asking if linking up to ICDP would allow sufficient advanced planning? G. Camoin said this will take time, but once the first Land-2-Sea proposal is forwarded, improvements can begin.

Chair Seama thanked G. Camoin, and said these merit more discussion tomorrow. Chair Seama asked what is suggested for post-IODP collaboration from the CIB perspective? Angelo Camerlenghi recognized that the Land-2-Sea question is a common one, especially given the differences between the two programs. However, a solution will need to address the missing parts of the funding and contributions, within a reasonable timeframe.

Dave Goldberg felt conflicted about the alliance concept, since he is also a member of the SODA group, especially if NSF has rejected this. D. Goldberg asked if the alliance is exclusive or non-exclusive; short-term or long-term partnerships only? G. Camoin said this had been presented at the last Forum, and with the discussions on post IODP SOD, there was a discussion on the idea of having services that could support different SOD efforts. G. Camoin said that ultimately, the target is to resolve these issues through discussion. Japan and ECORD will bind into one, and hopefully ally with whatever other programs there are. The Vienna meeting showed that the US is intending to pursue an independent program, but we still look to have a single evaluation effort for all; otherwise there will be multiple and duplicate efforts here.

Shinichi Kuramoto said that the Science Framework 2050 was created by consensus effort of the science community; Japan-ECORD alliance is built on that framework. The future, however, is unknown.

G. Camoin responded to D. Blackmans' comment in the chat, saying that N. Eguchi showed our concept of the alliance, and we believe that the Forum is a key entity in any future program. We have the scientists, we have the operators, and we have the funding agencies to make this work.

Chair Seama thanked everyone for their presentations and dialogue today, and moved to adjourn for today. The meeting will resume tomorrow from 1300, beginning with Agenda Item #13.

Day-2

Wednesday, 31 August 2022

LUNCH

1300-1430 13. Chikyu Proposals -2
Discussion

(Seama)

Chair Seama welcomed everyone to the continuation of the meeting. He kicked off with the budget estimate from Hiroyuki Tojo of 20M USD for 2024 operations. He reminded everyone of the three proposals (one an APL) discussed yesterday. Chair Seama noted that the CIB should recommend the formation of a PCT along with the selected proposal; this will have to be for either JTRACK (835) or Hyuga-Nada (990), not both, and it will be with or without the APL (939).

After a long discussion, APL 939 will be considered separately and the CIB requests SEP review the science impact of implementing a minimal science plan (w/MarE3) for Proposals 835 and 990, because there was general agreement with having a SEP review of a reduced program that would match the 20M USD. Tim Reston said that the SEP would ask the watchdogs to discuss this and contact the PIs if necessary; then a vote could be held on the results.

Chair Seama seeing consensus, moved to vote by zoom or email, after waiting one month to hear from SEP; a (virtual) discussion would be held before voting. The Chair then moved to the next item.

CIB_Consensus-0822-08: Chikyu Proposals – SEP Proposal review request
The CIB requests SEP review the science impact of implementing a minimal science plan (w/MarE3) for Proposals 835 and 990. CIB requests that SEP provide the outcome of this review within one month.

CIB_Consensus-0822-09: Chikyu Proposals – CIB implementation Recommendation

CIB recommendation for proposal implementation for 2024 will consider the SEP review on science impact as well as MarE3 operational concerns. CIB will subsequently recommend implementation and PCT formation.

CIB_Consensus-0822-10: Chikyu Proposals - APL

APL 939 will be considered separately after the proposal implementation recommendation based on CIB_Consensus-0822-09.

1430-1450 14. Other FB, IODP Forum, and Agency Activities -2

g. MEXT

(Totani)

Gen Totani gave the MEXT presentation, and apologized for not being able to attend in person due to other commitments. G. Totani, MEXT Director for the Ocean and Earth Division was happy to hear about JAMSTEC securing some budget for IODP. G. Totani noted that *Chikyu* is almost 17 yrs old and the next phase of activity needs to be determined. A WG committee on the scientific results & achievements of *Chikyu* & recommendations for future plans has been meeting, and yesterday released an internal review report. The WG reviewed *Chikyu's* considerable contributions to the international SOD efforts; however, the mantle has not been reached, and there are issues with deep drilling. G. Totani said the most effective use of *Chikyu* is being considered; *Chikyu* should be mobilized and not remain tied up in Shimizu. There will be another meeting at the end of September, with a final report to be prepared in December. G. Totani said the committee recommends *Chikyu* use for at least the next 10 years; this extends beyond the current JAMSTEC medium to long term plan. While the meeting's minutes are freely available on the committee's website, unfortunately they are all in Japanese.

Donna Blackman thanks G. Totani for his report and asked about the official government stance on mantle drilling. G. Totani thanked D. Blackman and said mantle drilling depends on the needs of the science community; however, with *Chikyu's* age it seems, officially, that reaching the mantle will be very difficult to impossible with *Chikyu*. The committee, however, will need to decide if the mantle target is important enough to keep *Chikyu* focused on that goal.

D. Blackman and Henk Brinkhuis were grateful to G. Totani for his clear message, and this needs to be shared with the Mantle drilling WG, and with the broader science community, especially as this will impact one portion of the Science Framework 2050.

Chair Seama, seeing no other questions or comments, moved to the coffee break.

Coffee Break

1520-1630 15. Scientific Ocean Drilling beyond 2024 -2

a. Proposal transfer

b. New proposal submission guidelines

Chair Seama wanted to discuss the treatment of proposals not implemented during IODP. There was a consensus last year, and he felt the riserless proposals had not been decided on; shall these get transferred to the new program? Charna Meth suggested that all proponents interested in utilizing *Chikyu* submit an addendum, stating that they want to carry over their proposal to the new system; as for proposals still at SEP, they can be updated. Gilbert Camoin agreed, saying this is not a big job for the PIs, but is needed.

CIB_Consensus-0822-11: Active Chikyu Proposals

The CIB supports transferring *Chikyu* proposals currently at the CIB and SEP to a post-2024 scientific ocean drilling program. The transfer process will require proponents, at a minimum, to link scientific objectives to the 2050 Science Framework, a step that can begin now.

CIB_Consensus-0822-12: Post 2024 Scientific Ocean Drilling

The CIB recognizes the critical need for international collaboration and endorses continuing discussions with its current and future partners to move towards implementation of the 2050 Science Framework.

1630-1700 16. Review of Consensus Statements and Action Items

Chair Seama then asked what are the recommendations for post-2024? D. Goldberg said any recommendation should include the request for a Forum-like entity post 2024, endorsed by the CIB for a variety of future SOD activities. G. Camoin agreed, saying this is exactly in line with what he said yesterday, and is key for the Japan-ECORD collaboration; while nobody knows what the future will look like, there should be some space like the current Forum where all the programs can come and meet. G. Camoin added that the J-E program will have something like the Forum.

Henk Brinkhuis agreed; even if he is the Forum chair, this is a good idea. The Forum's Terms of Reference (ToR) should be checked for ideas and also how the Forum evolved over time. H. Brinkhuis said it makes sense that there should be some kind of alignment of effort. N. Eguchi agreed on this need.

Dave Goldberg thought it might be pre-mature to define the Forum; better for the CIB to make a consensus in a general statement that a "forum" is needed. Henk Brinkhuis added that to align requires an alliance, but also a mandate, because whatever happens in the future, will need to align with the Science Framework.

Gilbert Camoin said that this is an ideal case, and that aligning through a shared evaluation program would be great. However, many unknowns remain, we don't know what either China or the US will end up doing. Therefore, we should solve our own problems first, and then see if there is a possibility to cooperate through some kind of "forum". To this, there was general agreement, but Kyoko Okino wondered to whom this consensus and endorsement should be addressed to? N. Eguchi suggested the Japan-ECORD effort, since that started this conversation. K. Okino agreed, but there should be a larger audience for this. N. Eguchi understood, but we need to start small, then build up. D. Goldberg wondered if the issue here was really bound up in the term "Forum", and maybe something else is needed. However, with no agreement on what could replace the term "Forum", D. Goldberg suggested that the CIB endorse "more and better coordination and collaboration with all international partners"?

Ron Hackney suggested the CIB create a statement underlining international collaboration, with a greater community, and the need for some sort of over arching collaboration. D. Goldberg agreed that highlighting international coordination and moving towards the Science Framework 2050 goals should be stated by the CIB.

Masa Kinoshita suggested that the CIB should encourage/endorse collaboration, beyond the current J-E collaboration & coordination; expanded as much as possible.

Dave Goldberg shared some draft consensus text on screen for comments and revision. D. Blackman suggested removing "collaboration", but others said although the term may be "touchy", it fits with the CIB's message. G. Totani suggested adding some wording regarding Science Framework 2050.

Chair Seama moved to make consensus on D. Goldberg's text, and then began general review of the consensus and action items. The consensus and action items are listed elsewhere.

1730-1745 17. Next CIB meeting

This discussion began while the consensus and action items text was being finalized. Chair Seama looked for suggestions on scheduling; he suggested close to the JRFB, in May 16-18, and the JpGU in late May. Would June in Kobe fit everyone's schedule? The members were agreed on early June, and Chair Seama suggested 7-8 June.

After some discussion, the dates were set as 7-8 June (Wednesday-Thursday) 2023, in Kobe, Japan; hopefully, in-person.

CIB_Consensus-0822-13: Next CIB meeting
The CIB sets the next meeting (*hopefully* in-person) for 7-8 June 2023, in Kobe, Japan.

1745-1800 18. Other Business

Chair Seama gave Fumio Inagaki some time to present on the nominations and considerations for the 2023 Taira Prize, to be awarded at the Fall 2023 AGU meeting. F. Inagaki described the annual award for outstanding transdisciplinary research accomplishments in ocean drilling, given to active scientists within 15 years of receiving their PhD in any discipline. In light of the recent COVID-19 impact, the Taira Prize committee decided to extend the 15 year requirement to 17 years maximum. Nominations for the 2023 Taira Prize will open around October 15, and close by April 15 2023. If there are any questions please contact the committee chair Mike Coffin or the other committee members listed here.

Henk Brinkhuis asked if this is limited to active AGU membership or not? F. Inagaki suggested checking with the Taira Prize homepage for details.

After the consensus items were reviewed and edited, Chair Seama extended his thanks to all the members and observers who participated, whether on-line or in-person, and also to the support staff. With that, Chair Seama closed the meeting.

Adjourn meeting