



***JOIDES Resolution* Facility Board Meeting May 16-17, 2023 – Washington, DC, and Zoom**

Roster

Members

Gilbert Camoin (Remote), ECORD Managing Agency, France
Ron Hackney (In Person), Australian National University, Australia
Kevin Johnson (In Person), National Science Foundation, USA
Larry Krissek, Chair (In Person), Ohio State University, USA
Steffen Kutterolf (In Person), GEOMAR, Germany
Huayu Lu (In Person), Nanjing University, China
Mitch Malone (In Person), *JOIDES Resolution* Science Operator, USA
Robert McKay (In Person), Victoria University of Wellington, New Zealand
Ken Miller (In Person), Rutgers University, USA
Dhananjai Pandey (Remote), Ministry of Earth Science, India
Amelia Shevenell (In Person), University of South Florida, USA
Wentao Wang (In Person), Ministry of Science and Technology, China

Liaisons

Henk Brinkhuis (Remote), IODP Forum Chair, Netherlands
Sarah Davies (Remote), ECORD Science Operator, UK
Barry Katz (Remote), EPSP Chair, USA
Shin'ichi Kuramoto (In Person), *Chikyu* Science Operator, MarE3, Japan
Kathie Marsaglia (In Person), SEP Co-Chair, USA
Charna Meth (In Person), IODP Science Support Office, USA
Tim Reston (Remote), SEP Co-Chair, UK
Nobukazu Seama (Remote), *Chikyu* IODP Board, Japan
Gabriele Uenzelmann-Neben (In Person), ECORD Facility Board, Germany

Observers

Gary Acton (In Person), *JOIDES Resolution* Science Operator, USA
James Allan (In Person), National Science Foundation, USA
Carl Brenner (In Person), U.S. Science Support Program, USA
Angelo Camerlenghi (In Person), ECORD Science Support & Advisor Committee, Italy
Gail Christeson (In Person), National Science Foundation, USA
Nobu Eguchi (In Person), *Chikyu* Science Operator, MarE3, Japan
Nadine Hallmann (Remote), ECORD Managing Agency, France
Sarah Kachovich (Remote), ANZIC PMO, Australia
Rich Kaczmarek (Remote), National Science Foundation, USA
Yangyang Li (In Person), IODP-China PMO, China
Harue Masuda (Remote), Japan Drilling Earth Science Consortium, Japan

Katerina Petronotis (In Person), *JOIDES Resolution* Science Operator, USA
Rebecca Robinson (In Person), U.S. Advisory Committee for Scientific Ocean Drilling,
USA
Sanny Saito (Remote), J-DESC Support Office, Japan
Angela Slagle (In Person), U.S. Science Support Program, USA
Karen Stocks (Remote), IODP Science Support Office, USA
Gen Totani (In Person), MEXT, Japan
Shouting Tuo (Remote), IODP-China PMO, China
Michiko Yamamoto (In Person), IODP Science Support Office, USA

Consensus Statements

Consensus 1: The JRFB recommends approval of the FY24 Program Plan as presented by the *JOIDES Resolution* Science Operator.

Consensus 2: The JRFB has returned to normal operations following the end of the COVID-19 emergency and has recently overcome several difficult drilling operations and core processing issues. The JRFB commends their perseverance through these challenging circumstances. Their pursuit of excellence to achieve the best results possible benefits not only each expedition's science, but also the entire program.

Consensus 3: The JRFB supports the possibility of an instrumented repository and appreciates the JRFB's strategic demobilization plans to repurpose analytical instrumentation and support equipment at the Gulf Coast Repository (GCR). The closeout timeline of keeping data access services (LIMS/LORE), GCR sample request, and data systems management available through FY29 is appreciated, as this approach will support the community's research.

Consensus 4: The JRFB recommends approval of the FY24 Program Plan as presented by the IODP Science Support Office.

Consensus 5: The JRFB thanks the IODP Science Support Office for continual improvements to the usability of the Proposal Database and the Site Survey Data Bank for SEP, EPSP, proponents, and others. Their attention and response to the needs of the community and IODP during proposal preparation and review provides for a more efficient and effective evaluation process.

Consensus 6: ECORD-Japan's new International Ocean Drilling Programme (IODP³) will expand the mission-specific platform approach, implement flexible operations, and begin after the conclusion of the International Ocean Discovery Program. The JRFB appreciates that IODP³ will accept proposals from scientists from all nations and that it will be open to partnership with other scientific ocean drilling programs.

Consensus 7: The *Chikyu* IODP Board and ECORD Facility Board will conduct a joint session in June 2023 to consider proposal-related procedures and policies for the International Ocean Drilling Programme (IODP³). The JRFB is encouraged that these discussions will consider how proposals that are at the JRFB might transition to IODP³ with proponent input and consent.

Consensus 8: Given the scheduled end of the cooperative agreement to Texas A&M University to operate the *JOIDES Resolution*, the JRFB agrees to stop accepting new or revised proposals to use the *JOIDES Resolution*. The JRFB thanks proponents for their continued enthusiasm for their science and will work with all programs that follow IODP to determine potential next steps for existing proposals.

Consensus 9: The JRFB thanks the EPSP for its continued and timely reviews of site requests under Barry Katz’s leadership. Barry’s experience with and perspective on the EPSP review process has been an important contributor to the successful implementation of the scientific ocean drilling programs for decades. The JRFB welcomes receipt of the EPSP Best Practices Summary, prepared by Barry and the IODP Science Support Office, as a means to capture some of EPSP’s insights.

Consensus 10: The JRFB approves the nominations of Will Sager (University of Houston) and Verena Heuer (University of Bremen, MARUM) to the IODP Curatorial Advisory Board (CAB). The JRFB also wishes to thank Beth Orcutt (Bigelow Laboratory for Ocean Science) and Ludovic Ferriere (Natural History Museum, Vienna) for their dedication to assuring fair and equitable sample distributions.

Consensus 11: The SSO currently manages digital and analog site characterization data that was submitted as part of proposals under the scientific ocean drilling programs. Any disposition of these data past the end of IODP outside of deletion/disposal is currently not planned. The JRFB recommends that the current SSDB Advisory Committee be expanded to include Gail Christeson as an *ad hoc* member, as well as participants from IODP country/consortia not currently represented on the committee.

Consensus 12: The JRFB expresses its sincere thanks to Ken Miller for his dedicated service as a JRFB member. Ken’s knowledge, experience, and passion for scientific ocean drilling have enriched the JRFB’s deliberations, and his deep understanding of the proposal review process has helped define “best practice” expectations for future proposals and their review. We wish Ken all the best in his future endeavors and look forward to his continued involvement in scientific ocean drilling.

Consensus 13: The JRFB is very grateful to Charna Meth and the IODP Science Support Office for organizing and supporting the very successful May 2023 hybrid meeting. This meeting would not have been possible without the IODP Science Support Office’s efforts, and the JRFB is appreciative of the extra logistical arrangements that allow for in-person and virtual participation.

Action Items

Action Item 1: The SSO will distribute the report from the JRFB Working Group on Virtual Expeditions to the JRFB for approval when finalized.

Action Item 2: The JRFB Chair, working with the SSO, will send letters to all current lead proponents of proposals at the JRFB with possible steps forward after the upcoming CIB-EFB joint discussion session in June 2023.

Action Item 3: The SSDB Advisory Committee will report to the JRFB by the end of the calendar year with options for the fate of site characterization data, including recommendations for actions before the end of the current program.

Action Item 4: The JRFB requests that USSSP initiate a call for one U.S. member to replace Ken Miller on the JRFB.

Meeting Notes

1. Welcome and Logistics

The *JOIDES Resolution* Facility Board (JRFB) chair, Larry Krissek, called the meeting to order with a welcome and asked attendees to give self-introductions. Larry reviewed the hybrid meeting format, the consensus statements and action items from the 2022 JRFB meeting, and the current agenda. Charna Meth reviewed the meeting logistics.

2. *JOIDES Resolution* Science Operator Report

Mitch Malone updated the JRFB on expeditions implemented by the *JOIDES Resolution* Science Operator (JRSO) since the last JRFB meeting, including Expedition 393 (South Atlantic Transect), Expedition 397T (Transit and Return to Walvis Ridge), Expedition 397 (Iberian Margin Paleoclimate), and Expedition 398 (Hellenic Arc Volcanic Field), where twelve sites were cored, more than originally planned. Mitch thanked Katerina Petronotis and the Greek observer for quickly working with EPSP and the Greek government on approval for the additional sites. It is an asset to have representatives from permitting countries involved in expeditions from the beginning stages. The Preliminary Report for Expedition 398 is in moratorium as the science party works on a high-profile paper.

The JRSO is currently implementing Expedition 399 (Building Blocks of Life, Atlantis Massif). The co-chiefs are reporting recovery of the freshest and most complete record of oceanic serpentinized peridotites ever collected. They are also finding chrysotile, an asbestos mineral, in the veins, which prompted developing special handling procedures with Siem and TAMU Environmental Health and Safety. Due to high recovery and the asbestos protocols, the science party will need a previously unscheduled post-cruise sample party at TAMU; PMOs should plan accordingly.

Mitch reported that the JRSO's COVID-19 protocols have changed through the past year. They transitioned to shorter quarantine periods through February 2023; currently there is not a quarantine requirement. The JRSO, however, is still implementing hotel testing and shipboard mitigation procedures to detect and isolate cases. Mitch also provided an update on maintenance of operational and lab equipment, as well as work done by Siem. Schlumberger is having challenges getting replacement explosives to ship that are needed to sever the drill string if stuck. Without explosives, they cannot drill; therefore, the *JOIDES Resolution* might need to be diverted before Expedition 395 (Reykjanes Mantle Convection and Climate) to pick-up explosives.

The JRSO facilitated outreach activities related to Expedition 398, and they worked with USSSP on activities during the transit from Greece to Spain and during the tie-up period in Spain.

3. Science Support Office Report

Charna Meth outlined the major tasks of the IODP Science Support Office (SSO), reviewed accomplishments from the past year, and discussed future planned activities. Charna summarized that there are currently 96 active proposals in the IODP proposal system, with the majority of proposals requesting to use the *JOIDES Resolution*. Proposal submissions increased at the last deadline for the first time since the JRFB stopped accepting new proposals. Over the past year, the SSO began checking SEG-Y header format requirements for compliance, implemented a new map-based search feature for SSDB, and made improvements to help proponents avoid errors while correcting or revising data. Based on input from the Small Group, the SSO completed the Master Site Table and implemented a new SSDB Advisory Committee. In addition to the SSO's standard work, the office also supported the JRFB Working Group on Virtual Expeditions, helped EPSP with their Best Practices document, and supported the CIB in communications with proponents. The SSO period of performance has been extended one year by NSF, which aligns it with the end of IODP.

4. ECORD Facility Board Report

Gabi Uenzelmann-Neben, the ECORD Facility Board (EFB) vice chair, provided the report and update on behalf of Sasha Turchyn, the EFB chair. She began by acknowledging that ECORD recently celebrated its 20th anniversary at the European Geophysical Union General Assembly, and ECORD looks forward to its future.

Gabi briefly provided an overview of past mission-specific platform (MSP) expeditions, and she stated that ECORD plans to implement Expedition 389 (Hawaiian Drowned Reefs) this year, followed by Expedition 406 (New England Shelf Hydrogeology) in 2024. Gabi reviewed MSP proposals that are at the Science Evaluation Panel (SEP) and the EFB and said that it is the EFB's intention for MSP proposals to transition to the post-2024 scientific ocean drilling program. Proponents are already beginning to link their proposals to the 2050 Science Framework in preparation for this transition. Interest in workshops remains high, which also bodes well for new proposal development.

The next EFB meeting will take September 21-22, 2023, in Edinburgh, Scotland, and will focus on post-2024 plans. The EFB would like to work with the JRFB to transfer proposals that have not been scheduled on the *JOIDES Resolution*. The EFB anticipates that the next program will schedule two to three MSP expeditions per year on various vessels, so there is capacity for proposals that are currently at the JRFB, though exactly how proposals might transfer and/or be modified will need to be discussed. Gilbert Camoin added that there will be a joint session of the EFB and *Chikyu* IODP Board (CIB) in June, where this topic will be discussed further.

5. *Chikyu* IODP Board Report

Nobu Eguchi presented the *Chikyu* IODP Board (CIB) report on behalf of Nobi Seama, CIB chair. Nobu reviewed outcomes from August 2022 CIB meeting, which included

scheduling Expedition 405 (Japan Trench Tsunamigenesis; JTRACK). CIB has since also approved a project coordination team for Expedition 405, as well as naming Shuichi Kodaira, Kohtaro Ujiie, Jamie Kirkpatrick, Patrick Fulton, Marianne Conin, and Christine Regalla as co-chief scientists. Given the length of the expedition, more than two co-chiefs are needed. The expedition is scheduled to begin in mid-September 2024, making it the last expedition of IODP.

Nobu showed the *Chikyu* operation schedule for JFY 2022-2025, which includes IODP work, national projects, commercial operations, and maintenance periods. The current JAMSTEC mid-term plan for the *Chikyu* ends at the end of JFY 2025. The next CIB meeting will take place June 7-8, 2023 in Kobe, Japan. As previously mentioned, the meeting will include a joint session with EFB to discuss proposal items (evaluation, submission, and transfer) related to the International Ocean Drilling Programme (IODP³).

6. IODP Forum Report

Henk Brinkhuis reviewed the outcomes from the IODP Forum meeting that took place in April 2023 in Vienna. The consensus items are located on the IODP website. Henk shared the IODP Forum's desire for more information regarding how proposals will be handled in and transferred to a post-2024 program. The IODP Forum is pleased to see increasing collaboration with ICDP, efforts to preserve IODP core and legacy material, and new programs focused on legacy assets. Henk discussed the need for post-expedition assessment to determine success of expeditions, and he invites input and thoughts related to this and other topics, such as identification of remaining IODP Science Theme challenges and lessons learned.

The second part of the IODP Forum meeting focused on post-2024 planning updates from program partners. Henk reviewed the updates from ECORD-Japan, NSF, China, India, and ANZIC, as well Korea's desire to partner with scientific ocean drilling again. The next IODP Forum meeting will take place in conjunction with the PMO meeting in Australia this October.

Henk also mentioned that he was recently approached by a publisher about coordinating a special publication related to the accomplishments of the *JOIDES Resolution*. The JRFB discussed that there are many paths such a publication could take (e.g., expedition focused, synthesis focused, applied science or policy focused). Henk will initiate conversations to discuss further after the JRFB meeting.

7. National Science Foundation Report

Kevin Johnson reviewed leadership changes at NSF, which includes James McManus beginning about a year ago as OCE Division Director, Bob Houtman retiring as Integrated Programs Section Head, Jamie Allan retiring during FY23, with Kevin beginning as the new ODP lead.

Kevin reminded the JRFB that the JRSO award and IODP will end on September 30, 2024. The current funding model for the *JOIDES Resolution* was unsustainable for NSF due to a combination of waning supporting from some international partners, flat funding from NSF, and increasing costs. NSF will continue to support missions on available platforms, including working with international partners on scientific ocean drilling and subseafloor sampling.

NSF is currently developing plans for post-2024 scientific ocean drilling to present to the community during FY23, and NSF is committed to maintaining access to cores and related data for the United States and international science communities. U.S.-owned cores will be kept at current locations under the same governance for five years post-IODP while discussions are underway to determine the longer-term fate of those cores. NSF will also develop an innovative framework for supporting early-career scientists and will support participation and mission on available platforms.

NSF is soliciting a new decadal survey from the National Academy of Sciences (NAS), which is one area of input. NSF will need additional community input as they look forward, including to determine prioritized objectives and a portfolio of possible approaches. NSF will also hold a town hall that will be open to the international community. Jamie Allan emphasized the critical need for timely international partner contributions in FY23; he thanked India for already sending their payment to NSF.

Larry asked about the future of the JRFB. Kevin responded that he thinks the JRFB should continue as long as the JRSO exists. In response to a question about future priorities, Kevin said that NSF leadership feels the 2050 Science Framework does not define specific priorities for the United States, which is needed. Jamie added that NSF is still moving through the steps to seek approval for conceptual design of a new drillship. NSF hopes to be able to share more about their path forward in a few months. Angelo Camerlenghi shared that ECORD and Japan are also defining their priorities for the near-term, and he thinks the initiatives are complementary. Carl Brenner added that USSSP would like to know more about the boundaries of NSF's request and options as the process moves forward so that the community provides useful priorities and recommendations to NSF.

The JRFB asked if NSF has updates on the status of the decadal survey and if those with experience with scientific ocean drilling would be members of the NAS panel. NSF responded that the decadal survey is being conducted by the NAS and the NSF representatives at the JRFB meeting don't have additional information; the panel should have the breadth to represent the U.S. oceanographic community as broadly defined.

The term "subseafloor sampling" was discussed, as NSF finds this term broader and more inclusive. The JRFB feels that the term scientific ocean drilling is important because of the unique access to deeper samples provided by that approach. The Science Mission Requirements (SMR) report states that the access provided by scientific ocean drilling is a priority for the U.S. community, with collecting surface sediments as a secondary goal. NSF stated that the financial case for a new drillship

might not be successful without a broader view, and that subseafloor sampling includes scientific ocean drilling, long-piston coring, and other tools. The vessel will likely need to have multiple capabilities.

8. JRSO Draft FY24 Annual Program Plan

Mitch Malone presented the JRSO Annual Program Plan (APP) for FY24, which is based on a transit, drydock (required 5-year certification), and maintenance period; Expeditions 401 and 402; another transit / tie-up period; Expedition 403, and then demobilization of the *JOIDES Resolution* in Amsterdam.

The FY24 program plan is \$69.4 million, with the ship subcontract at \$44.3 million. Inflation and fuel prices remain major variables, although inflation is leveling off and fuel prices are currently stable. The budget assumes minimal COVID-19 costs while continuing the current mitigation program of masking and testing.

The JRSO is using a high-level estimate for demobilization costs; this number may need to be refined as planning continues. The demobilization approach will include shipping property that can be repurposed from *JOIDES Resolution* to Texas A&M University. Disposition (e.g., sell, scrap, discard, abandon in place) of property and supplies that cannot be repurposed will be determined as demobilization planning continues. JRSO hopes to include property issues as an appendix of the final version of the program plan.

Closeout of the JRSO award is planned to occur from FY25-29. Some of the tasks and services will include receiving, unpacking, assessing, and installing equipment from the *JOIDES Resolution* at Texas A&M University; final financial processing and closing of accounts; final award reporting requirements, legacy documentation; archiving of data and publications; and coordinating final tasks from expeditions. JRSO is anticipating a significant decrease in employee numbers by the beginning of FY26, primarily due to the release of seagoing personnel. The instrumented repository model remains to be defined, with those staff numbers not currently included in the closeout plan.

The JRFB asked about the JRSO building at Texas A&M University. Mitch replied that renovations will be needed for an instrumented repository, and the TAMU Division of Research will determine what happens to the office space.

9. USAC Report

Becky Robinson summarized recent activities in the area of science communication, education, and outreach, highlighting Expedition 397 (1100 students involved), Expedition 398 (tours for 14 schools in five days and 51 media pitches), JR Academy 2023 (15 students and five instructors), and two Schools of Rocks (one in partnership with the American Geosciences Institute).

USSSP funded six workshop proposals for 2023, as well as provided supplemental funding to support U.S. scientists participating in international meetings related to scientific ocean drilling. USSSP also funded six proposals for 2023 that were submitted to their Novel Project program. The U.S. Advisory Committee for Scientific Ocean Drilling (USAC) also initiated or facilitated the submission of four AGU session proposals in hopes of enhancing visibility of the successes of scientific ocean drilling and discussing future efforts.

The Science Mission Requirements (SMR) report for a new riserless vessel was submitted to NSF in the Fall 2022, and NSF issued a response in March 2023, saying that the priorities need to be considered in a broader context. This response was issued soon after NSF announced that it would not renew the JRSO cooperative agreement. The full path for a new drillship is not yet known, but USSSP will hold a U.S. community workshop to determine priorities for a post-*JOIDES Resolution* activities once a request for assistance from NSF is received.

Carl Brenner provided a statistical overview of U.S. applications to sail on all IODP platforms, noting that the percentages were statistically indistinguishable from those for the *JOIDES Resolution* alone. Looking at career level, the number of applications from graduate students exceeds those from other levels, with senior researchers next highest. Senior researchers are invited at higher rates than other levels. USSSP has received about the same number of applications from female and male applicants, with female applicants making up a greater proportion of the science party. Carl also reported an increase in non-white and Hispanic applicants, which is a positive sign.

NSF was impressed with USSSP's demographic data. Angelo asked about statistical information related to sample requests. Mitch said there is information about this in the first U.S. Scientific Ocean Drilling Alliance (US-SODA) letter. Steffen Kutterolf shared that on Expedition 398 (Hellenic Arc Volcanic Field), a science party member from China recorded a broadcast that was attended by over 3 million people.

10. ECORD-Japan Alliance

Nobu Eguchi provided an overview of ECORD and Japan's post-2024 joint program, called the International Ocean Drilling Programme (IODP³). This new partnership will be inspired by the 2050 Science Framework and based on the MSP concept. ECORD and Japan will maintain their identities and create three joint entities (a vision task force, communication task force, and workshop program). IODP³ will be transparent, flexible, and open to the international community.

The IODP³ Support Office will include all tasks currently conducted by the SSO plus expedition-related publications. The location could be in Europe, Japan, or the United States. The evaluation system will have a SEP-like panel with about 30 scientists and will not include external review. There will not be a standing EPSP-like panel; operators will have responsibility for safety and environmental issues. The MSP Facility Board will be the entity responsible for selecting and scheduling drilling proposals.

The core members of IODP³ will be ECORD and Japan as platform providers. They will also welcome associate and temporary members. Proposals will be accepted from scientists from all nations. National representation on panel, boards and expeditions will be commensurate with levels of financial contributions. A Forum-like group could help facilitate collaborations with other ocean drilling programs, and other science programs, initiatives and organizations, as well as with new partners and members.

Nobu then described the potential platforms for IODP³. Overall, the assets provided by ECORD (e.g., geotechnical vessels, lift boats, and multipurpose vessels) and JAMSTEC (e.g., *Chikyu* and *Kaimei*) will provide operational flexibility through a wide array of drilling and coring systems. Technical approaches can be tailored to the needs of the expeditions and expeditions can be implemented in regional clusters, with other programs, or in phases.

Proposal guidelines need to be developed, but they will include the need for multiple implementation plans (basic, intermediate, and full). EFB and CIB expect to transfer MSP and *Chikyu* proposals to IODP³, and ECORD and Japan expect that some *JOIDES Resolution* proposals could also be transferred. With the MSP-concept having a significant onshore component, there could be more flexibility in the size of the science party. Collaboration with programs that use legacy assets would also be welcome.

JRFB members asked if IODP³ will use the 2050 Science Framework. Gilbert confirmed that IODP³ will use the 2050 Science Framework for its enduring principles and for long-term goals. The program will also develop short and mid-term priorities based on workshops that are open to the international community.

Charna clarified that the transfer of any proposal from IODP to IODP³ would need proponent permission; it cannot be an automatic process. Jamie added that every proponent would need to give permission. Gilbert further explained that the intention of the joint EFB-CIB session in June is to provide recommendations to help proponents understand their options with IODP³. They hope the JRFB chair will help in communicating the outcomes to the proponents, to which Larry agreed and expressed appreciation for the consideration. Nobu reminded the JRFB that U.S. proponents on proposals might not be able sail on an IODP³ expedition if the United States is not a member. Gilbert added that co-chiefs can be from any country, including non-member countries.

The JRFB discussed that the capabilities of the IODP³, as presented, do not actually reach all ocean water depths. Angelo stated the IODP³ is based on a flexible model that allows for procurement of drilling resources based on the community priorities. If extremely deep water is deemed a priority, then resources can be appropriately allocated.

Kevin asked about how participation will be managed for temporary and associate members, considering that costs will differ from expedition to expedition. Nobu confirmed that associate members will pay a flat amount, and Gabi said the implementation plan will change based on the amount of funding available for an expedition.

11. Science Evaluation Panel

Kathie Marsaglia provided the SEP report, noting that SEP is responsible for the selection of the best and most relevant proposals for forwarding to the JRFB, CIB, and EFB. SEP has two regular meetings each year and finds having a proposal's science and site characterization data reviewed together, with operator involvement, an effective and efficient approach. Kathie then reviewed the meeting outcomes from the past year, and showed the geographic distribution of proposals at SEP and the JRFB. At the next SEP meeting, the panel will consider eight proposals.

The JRFB discussed SEP's review procedures in more detail, including how members and watchdogs are selected and their roles. The JRFB asked if the proponents of pre-proposals requesting use of the *JOIDES Resolution* could be contacted with information about what drilling capabilities might be available post-2024. Larry responded that once there is more clarity on next steps, these options will be communicated to proponents. It is likely that *JOIDES Resolution* proposals at SEP and at the JRFB will have different paths forward. SEP is also interested in learning more about their next steps during a transition period. The JRFB had questions about how much effort they should be devoting to support proponents developing proposals, to which there was agreement that this is not a productive use of time.

12. Environmental Protection and Safety Panel

Barry Katz presented the results of the recent Environmental Protection and Safety Panel (EPSP) virtual meeting, which focused on Expedition 401 (Mediterranean Gateway Exchange).

Barry also reviewed key elements of the Best Practices Summary Document, stating that the stability of the panel's membership has advantages, including a clear understanding of the IODP's goals and the platform capabilities. Barry strongly recommends future programs not take an *ad hoc* approach to safety, as EPSP's independence is valuable in the evaluation process.

EPSP typically holds annual meetings based on platform needs. Barry has found that it is more important to have fewer meetings with more panel members than fewer panel members with more meetings. It is also beneficial to conduct EPSP meetings where the operator is located to facilitate active participation of operator staff. EPSP sometimes previews high-risk proposals (e.g., shallow water, hydrocarbon possibilities) to provide advice to proponents as they develop their proposals. The SSO collects and distributes the Safety Review Package to EPSP three months prior to the meeting; when

proponents follow the Safety Review Package guidelines, EPSP meetings run smoothly. EPSP has recently started reviewing draft Safety Review Packages to help make sure the packages are complete and following guidelines. EPSP has also found it useful in some cases to approve areas for drilling, rather than a single site, to provide additional flexibility in extremely safe environments.

Barry ended his presentation by reiterating his strong recommendation that a panel similar to EPSP be included in any future program. The panel provides an independent view that is important for safety. Over the history of scientific ocean drilling, there have been incidents where the operator's panel and EPSP (or its predecessor panels) have disagreed. This disagreement has resulted in continued discussion and a final determination on how drilling would proceed in a safe manner.

NSF stated that EPSP and SEP, as they currently exist, will end at the end of IODP operations. Future programs will need to determine their own approach to safety and environmental protection. Larry shared the JRFB, EFB, and CIB proposals that have not yet been reviewed by EPSP. There are two scheduled proposals that still need EPSP review. Larry also asked if there is value in EPSP reviewing other proposals. Gabi said an EPSP review would be helpful for any *JOIDES Resolution* proposal that can easily be converted to an MSP; the upcoming joint EFB-CIB discussions will be helpful in determining which *JODIES Resolution* proposals might meet this criterion.

13. Curatorial Advisory Board Nominations

Charna reviewed the main roles of the Curatorial Advisory Board (CAB). Two of the current members (Beth Orcutt and Ludovic Ferriere) have terms ending on September 30, 2023. The procedure for selecting new members begins with the three IODP curators nominating candidates and then all three facility boards reviewing the nominees. With IODP ending, new member appointments will officially be for one year, but the curators selected nominees assuming a board similar to the CAB will be needed post-IODP and that the CAB members will likely transition to that board. Charna then presented the curators' nominees: Will Sager (University of Houston) and Verena Heuer (University of Bremen). The JRFB was impressed with the qualifications of the nominees.

Looking forward, Jamie said that there are two draft memoranda of understanding (MOU) that would keep U.S. owned cores in their current repositories for five years post-IODP. The MOU says that the cores will be managed through policies approved by the JRFB, which implies a CAB.

14. SSDB Data Post-IODP

Karen Stocks presented information about the site characterization data currently held by the SSO. Based on current and past policy documentation, and taking into consideration confidentiality issues, Karen thinks that the SSO doesn't currently have

the standing or permission to do anything with most of the data after IODP ends beside delete or permanently dispose.

Jamie clarified that support for SSDB will end with the SSO award. SSDB is a temporary database and should not contain primary data. The current model is that the database will be turned off. Karen added that turning off the database would mean permanently deleting the data; Scripps Institution of Oceanography is not comfortable holding data that it doesn't have a clear right or purpose to hold.

Karen reviewed the three main components of the SSDB data: (1) Legacy Analog Data (physical data, ~33,000 items from 1969-2005), (2) Legacy Digital Data (pre-SSDB digital data, ~10,000 files back to Proposal 334 and Leg 101), and (3) Modern-era Digital Data (SSDB digital data ~26,000 files from 2005 to present).

Karen then reviewed the possible actions for each of these components. Options other than deleting or disposing of data would require, in most cases, contacting proponents for permission to share data and/or finding financial support to assure continued access. The SSO also recently convened an SSDB Advisory Committee that recommended that site characterization data be archived and remain accessible to support future science. The SSO then asked the JRFB for guidance on data priorities and on how to proceed with SSDB data post-IODP, which could involve asking the SSDB Advisory Committee for additional input.

The JRFB asked if proponents would be notified before data is deleted. Karen responded that notifications about when data would be deleted could be sent to proponents who could be reached. Proponents would then have time to download and save the data elsewhere, if needed.

The JRFB decided that these issues are more complicated and nuanced than could be adequately discussed during this meeting. The SSDB Advisory Committee, with additional members, would contain the experts needed to give the issues significant thought. They could then deliver recommendations to the JRFB before the end of the calendar year.

15. JRFB Working Group on Virtual Expeditions

Larry reviewed the statement of task for the JRFB Working Group on Virtual Expeditions (WG-VE), as well as the membership. Larry particularly thanked the international members for their active participation during numerous less-than-ideal meeting times.

An important finding of the WG-VE was that the term "virtual expeditions" has different meanings and implications to different people and groups. Instead of competing with assumptions already linked to that term, the WG-VE recommends calling these activities Ocean Drilling Legacy Assets Projects (LeAPs). The JRFB members saw no problem with the term LeAPs.

Larry reviewed the WG-VE recommendations for LeAPs with respect to scope, participation, proposals, evaluations, and implementation. LeAPs present an opportunity for focused multidisciplinary integration across legacy assets at scales larger than conventional single or multi-PI research projects. They could encourage new involvement and participation from the community; provide priority access to core repositories; open new funding sources, resources, and partnerships; and enhance visibility of project outcomes. The WG-VE is currently finalizing its report, which will be distributed to the JRFB once complete. Next steps could involve a pilot project within the present IODP structure.

NSF stated that the requirement to run LeAPs through a scientific ocean drilling program could be problematic if that program does not involve the United States. Angelo added that each proponent would need to seek their own funding, and that the review panel for LeAPs, if part of IODP³, could include U.S. scientists.

The JRFB discussed that LeAPs might need to encompass an approach that is broader than a single future scientific ocean program. The core repositories currently have the longest commitment for continuity into the future and could be the place to look for carrying this concept forward. Seamless access to site characterization could also be important for LeAPs.

16. Meeting Close and Other Business

The JRFB reviewed the draft consensus statements and action items. Larry stated that the drafts will be circulated for additional comments from JRFB members. Charna will poll JRFB members to determine dates for the May 2024 JRFB meeting, which will be held in Hawaii. Larry closed the meeting by thanking everyone for participating.