

**JOIDES Resolution Facility Board (JRFB) Meeting:
12-13 May 2015
Arlington, VA USA**

Summary of Consensus Statements and Action Items

Consensus Statements

Consensus 1

The JRFB approves the Agenda with the addition of one item for the final day requested by NSF: to revisit and provide feedback on plans for the review of the facility.

Consensus 2

The JRFB approves the April 2014 JRFB Meeting Minutes with no changes.

Consensus 3

The JRFB approves the Guidelines for Joint IODP-ICDP “Amphibious” Proposals and agrees to move forward with implementation in conjunction with the ICDP and the IODP Science Support Office.

Consensus 4

The JRFB approves the plan to contact proponents (via e-mail) of inactive (>5 years) proposals at SEP to update or deactivate their proposal.

Consensus 5

The JRFB recommends Proposal 505/693-APL: Mariana Convergent Margin and South Chamorro Seamount (one expedition) and Proposal 878-CPP: South China Sea Rifting (two expeditions) for scheduling in FY’17. Furthermore, the JRFB recommends that Proposal 760: SW Australia Margin Cretaceous Climate be first on the FY’18 schedule, and that Proposal 781A: Hikurangi be scheduled sometime during FY’18. The expectation of the JRFB is that there will be 10 months of operations in FY’18 and 10 months of operation in FY’19 as a result of scheduling the CPP.

Consensus 6

The JRFB affirms that, based on current and anticipated proposal pressure, the *JOIDES Resolution* will follow a path from the southwestern Pacific Ocean, through the Southern Ocean, and into the Atlantic Ocean for opportunities for drilling there starting in FY’19. The JRFB further expects that the JR will operate in the Atlantic, Mediterranean, Caribbean, and Gulf of Mexico over the next few years.

Consensus 7

The *JOIDES Resolution* Science Operator (JRSO) Annual Program Plan FY’16 is approved in principle. It was then circulated for approval by e-mail in July 2015, and formally approved on 13 July 2015.

Consensus 8

The JRFB recommends that the moratorium period for each expedition be a maximum of 18 months post the end-of-expedition.

Consensus 9

The Science Support Office Annual Program Plan FY'16 is approved in principle. A final plan will be circulated for approval by e-mail in July 2015.

Consensus 10

The JRFB approves the appointment of Anthony Koppers as its next Chair beginning on 1 October 2015.

Consensus 11

The JRFB thanks Susan Humphris and Heiko Pälike for their service in the early years of the JRFB.

Action Items**Action Item 1**

A small working group (Holly Given, Christina Ravelo, Dave Mallinson, Dave McInroy, and Nobu Eguchi) will work to review and clarify the Proposal Submission Guidelines.

Action Item 2

A small working group (Dave Mallinson, Anthony Koppers, and Mike Coffin) will work to review, clarify, and refine the Site Characterization Guidelines.

Action Item 3

Susan Humphris will draft e-mails to proponents who have proposals at SEP that have been inactive for 5 years or more. The email will ask if the proponent is planning to update their proposal, and if they respond that they will not, the SEP will deactivate the proposal. The exception is Proposal 705: Santa Barbara Basin Climate Change, which will be deactivated because implementation is impractical.

Action Item 4

The JRFB Chair will request that ECORD and CIB approve the moratorium statement by e-mail.

Action Item 5

A subgroup consisting of Heiko Pälike, Anthony Koppers, and Jamie Allan will consider Data Development issues and the path forward for IODP data.

Action Item 6

The chairs of the Facility Boards will request nominations from the curators for three positions on the CAB. The recommendations for the new members will be circulated to all three Facility Boards for approval.

Action Item 7

The JRFB Chair will request that USSSP solicit applications for the JRFB science member replacements for Heiko Pälke and Susan Humphris. Recommendations from this process will be circulated to the JRFB for approval.

**JOIDES Resolution Facility Board (JRFB) Meeting Roster:
12 – 13 May 2015
Arlington, VA USA**

JOIDES Resolution Facility Board – JRFB

James Allan	National Science Foundation, USA
Brijesh Bansal	Ministry of Earth Science, India
Gilbert Camoin	ECORD Management Agency, CEREGE, France
Mike Coffin	University of Tasmania, Australia
Marcio Silva	Coord. de Aperfeiçoamento de Pessoal de Nivel (CAPES), Brazil
Gil Young Kim	Korea Inst. of Geosc. and Mineral Res. (KIGAM), Republic of Korea
Shujun Zhang ¹	Administrative Centre for China's Agenda 21, China
Brad Clement	JR Science Operator (JRSO), Texas A&M University, USA
Ryo Anma	University of Tsukuba, Japan
Susan Humphris, Chair	Woods Hole Oceanographic Institution, USA
Anthony Koppers	Oregon State University, USA
Heiko Pälike	University of Bremen, Germany
Christina Ravelo	University of California Santa Cruz, USA
Andrew Roberts	Australian National University, Australia

Liaisons

Keir Becker	IODP Forum Chair, University of Miami, USA
David McInroy ²	ECORD Science Operator (ESO), British Geological Survey, UK
Holly Given	IODP Science Support Office, Scripps Institution of Oceanography, USA
Karsten Gohl	ECORD Facility Board Chair, AWI-Bremerhaven, Germany
Barry Katz	EPSP Chair, Chevron Corporation, Houston, TX, USA
Dick Kroon	SEP Co-Chair, The University of Edinburgh, UK
Shin'ichi Kuramoto	Center for Deep Earth Exploration (CDEX), JAMSTEC, Japan
Dave Mallinson	SEP Co-Chair, East Carolina University, USA

Observers

Jamie Austin	Incoming IODP Forum Chair, University of Texas at Austin, USA
Rita Bauer	IODP Science Support Office, Scripps Institution of Oceanography, USA
Carl Brenner	USSSP, Lamont-Doherty Earth Observatory, Columbia University, USA
David Divins	Consortium for Ocean Leadership, USA
Nobu Eguchi	CDEX, JAMSTEC, Japan
Nadine Hallman	ECORD Management Agency, CEREGE, France
Stuart Henrys	New Zealand IODP Coordinator, ANZIC
Bob Houtman	National Science Foundation, USA
John Jaeger	US Advisory Committee, University of Florida, USA
Thomas Janecek	National Science Foundation, USA
Mitch Malone	JRSO, Texas A&M University, USA
Sugiyama Masato	NOAA/OAR International Activities Office (JAMSTEC Fellow), Japan
Sidney Mello	Universidade Federal Fluminense, CAPES, Brazil
Rick Murray	National Science Foundation, USA
Hiroshi Nishi	IODP Section Chair, J-DESC, Tohoku University, Japan
Eisho Sato	Ministry of Ed., Culture, Sports, Science and Technology (MEXT), Japan
Angela Slagle	USSSP, Lamont-Doherty Earth Observatory, Columbia University, USA
Meagan Thompson	National Science Foundation, USA
Shouting Tuo	IODP-China Office, Tongji University, China
Dominique Weis	ECORD Sci. Sup. and Advisory Com. (ESSAC), Univ. of Brit. Columbia
Michiko Yamamoto	IODP Science Support Office, Scripps Institution of Oceanography, US

¹ Alternate for Qing Sun

² Alternate for Robert Gatliff

**JOIDES Resolution Facility Board Meeting Notes:
12-13 May 2015
Arlington, VA USA**

Tuesday	12 May 2015	08:30-18:00
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1. Welcome and Introductions

JOIDES Resolution Facility Board (JRFB) Chair Susan Humphris welcomed the group and reviewed the rules of engagement, confidentiality policy, and conflict of interest management for this meeting. She also asked for self-introductions by all members, liaisons, and observers.

2. Approval of Agenda

Susan Humphris requested consensus to approve the agenda. Jamie Allan, NSF Program Manager, requested the addition of an item to gather opinions about and changes to the JR Facility Review Process, as he would present it later that day. Susan received consensus to approve the agenda with this revision.

Consensus 1

The JRFB approves the Agenda with the addition of one item for the final day requested by NSF: to revisit and provide feedback on plans for the review of the facility.

3. Approval of April 2014 JRFB Meeting Minutes

Susan Humphris asked if the members had recommended changes. None were voiced.

Consensus 2

The JRFB approves the April 2014 JRFB Meeting Minutes with no changes.

4. National Science Foundation (NSF) Report

Rick Murray, NSF's new Ocean Science Division Director, presented a summary of the Sea Change: 2015-2025 Decadal Survey of Ocean Sciences (DSOS) report by the National Research Council / National Academy of Sciences. He distributed copies of the NSF reply to DSOS, which was released 11 May. Rick noted that the US science and legislative communities hold reports from the National Academy of Sciences in the highest esteem, and that the NSF Director recently stated that National Academy of Sciences reports are the standard by which the NSF will move forward.

Within this Decadal Survey Report, the IODP is noted to be high in cost, but also of high relevance in five of the eight areas of priority study selected by the survey. Rick summarized the following options for the IODP to address the Decadal Survey's recommended 10% cut in operating costs:

- Raise more revenue from international partners
- Increase external funding for operations (e.g. Complementary Project Proposals - CPPs)
- Reduce costs for operating by reducing program funded science services
- Reduce the number of expeditions per year

The first two options are what the IODP is most interested in, and is, pursuing. Rick pointed out that if the IODP makes no progress by 2018, funding discussions regarding scientific ocean drilling will become quite pointed.

Brijesh Bansal, JRFB Partner Member for India, agreed that it is a good idea to enhance CPP contributions. Anthony Koppers, JRFB Science Member, pointed out that CPPs had scientists' support because the plan was to get more expeditions by increasing outside funds. However, NSF had indicated that if new money is brought in, the IODP budget wouldn't necessarily increase; those funds could go elsewhere in the Ocean Science Division (OCE). Rick stated that OCE is trying to codify the distribution of funds such that a significant portion of the money saved would be retained within IODP.

Heiko Pälike, JRFB Science Member, pointed out that a significant component of the historic increase in IODP costs was the price of oil. Rick agreed, but he clarified that NSF is looking beyond fuel costs. They are looking for structural changes to capitalize on lower costs.

Jamie Allan then presented his review of IODP financial forecasts. He announced the new five-year award of the United States Science Support Program (USSSP) to Lamont-Doherty Earth Observatory (LDEO) and thanked the Consortium for Ocean Leadership (COL) for heading the USSSP office for the past three decades.

Jamie pointed out that the IODP has seen significant cost savings from previous efforts including:

- Selecting Texas A&M University as the JR Science Operator
- Limiting logging services on the JR
- Coordinating the geographic scope of yearly operations to produce fuel savings
- Removing the fuel price contingency from the JRSO facility budget.

Jamie noted that the NSF is hoping for a 50% increase (roughly) from the IODP member partners, starting in 2020, to restore the balance to the 50-50 (US-International Partner) funding distribution of the Ocean Drilling Program (ODP: 1985-2002).

Karsten Gohl, the European Consortium for Ocean Research Drilling (ECORD) Facility Board Chair, asked why NSF didn't call for an immediate increase from international partners? Jamie pointed out that the plan uses surplus and CPP funds to pre-fund deficits and cover operational risks (e.g. fuel price increases, loss of drill string) prior to 2020. However, NSF would welcome international partners willing to increase their share in the base funding costs. Although Jamie pointed out that additional cost decreases from reduced services and operations is an option as well, Rick respectfully suggested that the JRFB be cautious, as this type of cut could lead to reduced contributions from the international community. Jamie provided a good example of an acceptable risk that resulted in a significant cost savings (the implementation of drill casing strings with re-entry capability).

Draft Plan for the JR Facility Review

Jamie then presented a draft plan for the annual and mid-year (3rd year) reviews of the JR Facility, which are scheduled for February 2016, to be performed in consultation with the JRFB. These reviews are required now that the management of the JR Facility is under NSF. Jamie noted that if the JRFB reviews well, their contract could be renewed rather than re-competed. Jamie asked the Facility Board members for input on the planned reviews, and Susan Humphris asked the Facility Board to think of a combination of revenue increases or cost savings that might be appropriate to present to NSF.

Follow on Discussion of the Draft Plan for the JR Facility Review (from Day 2)

In their follow on discussion, the attendees of the JRFB provided the following suggestions to NSF regarding the content and membership of the JR Facility Review:

- The review should examine the role and effectiveness of the JR Facility Board.
- The review should examine the effectiveness of and funding for Education and Outreach.
- The review should include JRFB's self-assessment and areas of improvement.
- The review panel should include international panel members.
- The review should relate to the new program only.
- The review panel should remain consistent (with small variations) for future reviews.

Holly Given, the IODP Science Support Office (SSO) Director, asked Jamie whether the SSO had a role in the JR Facility Review. He stated that, while technically, the review is of the JR Facility only, there is potential overlap and linkage between the facility and the support office.

5. Science Support Office Report

Holly Given presented a summary of activities and accomplishments at the Science Support Office since April 2014. Her highlights were:

- High proposal submission volume for the first three deadlines and a much lower submission volume for 1 April 2015
- Continued high data file submission volume to the SSDB
- Increased proprietary data requests, which led to a clarification of the confidentiality policies for data and proposals
- Continued reasonable deactivation rates for proposal reviews at Science Evaluation Panel (SEP) meetings.

Susan Humphris stated that the JRFB (via the SEP) might have caused the SSDB file submittal increase by permitting only one proposal revision and the requirement to have all data available for review at that time. This resulted in proponents being more diligent in submitting their data. Anthony Koppers also pointed out that the SEP and Environmental Protection and Safety Panel (EPSP) are requiring more alternate sites, so proponents are submitting data for alternate sites as well.

6. IODP Forum Report

Keir Becker, outgoing Forum Chair, summarized progress toward the IODP Science Plan and introduced Jamie Austin as the incoming Forum Chair. He noted that the next Forum meeting will review Education and Outreach activities, and that there will not be an International Continental Drilling Program (ICDP) representative at the Forum meeting, but that he will attend the next ICDP meeting.

7. Facility Board Reports

ECORD – Karsten Gohl reported the following items from the March 2015 ECORD Facility Board (E-FB) meeting:

- A summary of the status of the Mission-Specific Platform (MSP) proposals at the March 2015 E-FB meeting. Karsten noted that, as a result of their careful balance between low, medium, and high cost expeditions, ECORD will implement only one more high cost expedition through the end of this IODP phase (2023).
- A summary of E-FB membership changes; including an increase of the Science Board member number to six, creation of a new Vice-Chair position to help decrease the chair's travel burden, and naming of Gille Lericolais and Dominique Weis as the E-FB Chair and Vice-Chair, respectively, starting January 2016.
- The acceptance of the MSP Third-Party Tools and Instruments Policy and the endorsement of the IODP-ICDP Guidelines on Amphibious Drilling Proposals (ADPs).
- The schedule for their next meeting as 15-16 June 2016 in Belgium (likely Brussels).

Chikyu – Nobu Eguchi, JRFB Liaison for CDEX/JAMSTEC³ (standing in for *Chikyu* IODP Board (CIB) Chair, Yoshiyuki Tatsumi), reviewed CIB consensus items from their July 2014 and March 2015 meetings, as well as the progress of *Chikyu* expeditions completed since the last JRFB meeting. Nobu confirmed that the CIB will continue to use the EPSP for riserless expeditions, but the CIB will conduct their own independent review of riser expeditions.

8. Policy and Guideline Updates

Proposal Submission Guidelines

Holly Given stated that the current Proposal Submission Guidelines document was developed at the end of the last program (IODP: 2003-2013). This current version serves both as a tutorial for new proposal submitters, and as the policy document for what happens during review (which, as Dick Kroon, SEP Co-Chair pointed out, is quite complex because we're dealing with three platforms). Unfortunately, the document is getting large and it could be hard for new participants to find information. Holly requested an opinion from this board regarding this document and its effectiveness at meeting the needs of the community.

Christina Ravelo (JRFB Science Member) and Anthony Koppers had both reviewed the Guidelines and agreed to share their notes with Holly. They, along with Heiko Pälke and Nobu Eguchi, expressed the opinion that a summary table (such as

³ Center for Deep Earth Exploration at the Japanese Agency for Marine-Earth Science and Technology

<https://www.iodp.org/proposal-submission-overview-pdb-v2>), cheat sheet, or flow chart would be helpful. Susan Humphris pointed out that previous attempts at a flow chart were too complex to be helpful.

Dick, Barry Katz (EPSP Chair), and Holly suggested that splitting the document (by platform, by type of drilling, or by proposal preparation vs. review rules) might make the individual documents less cumbersome, but would work against the idea of having less documentation.

The Board agreed that an effort should be made to review and clarify this document and Holly Given, Christina Ravelo, Dave Mallinson (SEP Co-chair), Dave McInroy (alternate for Robert Gatliff), JRFB Liaison for the ECORD Science Operator), and Nobu Eguchi volunteered to assist. Jamie Austin requested that this group generate a one or two-page guideline or table that contains callouts to the detailed document.

Action Item 1

A small working group (Holly Given, Christina Ravelo, Dave Mallinson, Dave McInroy, and Nobu Eguchi) will work to review and clarify the Proposal Submission Guidelines.

IODP Site Characterization Data Guidelines

Holly Given requested JRFB input regarding the validity and helpfulness of the Site Characterization Data Guidelines and how the SSO should handle the files submitted in relation to the guidelines. Anthony Koppers stated that the document was in need of review, and Susan Humphris pointed out that it is the SEP's job to set guidelines for data format and evaluation. Barry Katz stated that guidelines should permit enough flexibility to benefit the program, while retaining the ability to work safely. Dave Mallinson countered that, while he would like to remain flexible, permitting a wide range of formats in submitted data places a significant burden on the data reviewers. Dave would like to have a working group review the guidelines to make them more precise and clear, with the goal of pushing the proponents toward data consistency.

Jamie Allan pointed out that flexibility is likely more necessary in the case of proprietary data, which the proponent may not be able to modify in format or style. He also stated that it is critical to have precise site locations, as there is a great preference to drilling in international waters.

Action Item 2

A small working group (Dave Mallinson, Anthony Koppers, and Mike Coffin⁴) will work to review, clarify, and refine the Site Characterization Guidelines.

9. Report on SEP Meetings #2 and #3

Dick Kroon presented a summary of the June 2014 and January 2015 SEP Meetings and asked for JRFB input on how the SEP might improve their meeting process. Dick asked for feedback from the JRFB and the community regarding:

⁴ JRFB Partner Member for the Australia-New Zealand IODP Consortium (ANZIC)

- SEP's current rate of proposal deactivation: approximately 1/3 of the submitted proposals were deactivated, but approximately 50% of the deactivated proposals will return as revised proposals.
- SEP strictness of proposal review: is SEP too harsh in their review of standard proposals? With the increasing number of CPPs submitted to the SEP, are they strict enough on CPPs? (SEP strives to review CPPs with the same critical eye as the other proposals.)
- SEPs use of up to five watchdogs (WDs) for each proposal (with the fifth WD reviewing drilling-plan feasibility, where most proposals were failing).

Jamie Allan stated that NSF still considers CPPs to be IODP work, so from the perspective of the NSF, the SEP's level of review is working very well. While CPPs tend to be more exploratory in nature, they must still present good science. In their 2015 meetings, the E-FB and the CIB agreed with the use of the fifth WD.

Dick also highlighted:

- The success of the merged panel.
- A summary of the 2014-2015 proposal evaluation results.
- A list of the proposals submitted on 1 April 2015; noting the small number.
- The implementation of the designation of up to 10 lead proponents.
- The addition of the following topics to the June SEP agenda:
 - Site survey data formats
 - Implications of national guidelines for seismic data acquisition
 - Replacement of Dick Kroon as the SEP Co-Chair (Science): the SEP is to recommend a candidate and the JRFB will then review and approve
 - Communication with and among the SEP members and Co-Chairs

Dick, Gilbert Camoin⁵, and Anthony Koppers discussed the scheduling and financial benefits of proponents submitting proposals for short-term expeditions (less than 2 months).

10. Overview of All Proposals at the Facility Board

Michiko Yamamoto summarized the list of proposals with the SEP and the JRFB.

11. Overview of JR Proposals Ready for Scheduling

Prior to the JRFB discussion of potential schedules, Susan Humphris asked the JRFB members to self-identify direct or potential conflicts. They were:

- Susan Humphris as a proponent on 818.
- Karsten Gohl as lead proponent of 839 and co-proponent on 732
- Mike Coffin as a co-proponent on 860
- Christina Ravelo as co-proponent on 830-APL
- Ryo Anma as a participant in the superfast drilling leg but not a proponent on the currently active proposal.

⁵ JRFB Partner Member for ECORD

Susan directed the conflicted members to remain in the room during Dave Mallinson's proposal review presentation, Mitch Malone's JRSO schedule options presentation, and the general discussion session, but she asked that they not ask questions or provide comments. She added that any conflicted persons on proposals presented in the scheduling options would need to leave the room during the decisions session (tomorrow), and assigned Anthony Koppers as chair for that session.

Dave Mallinson then presented the results of SEP review of proposals ready for scheduling.

12. Options for a FY'17 JR Schedule

Mitch Malone presented the details and rationale for several possible FY'17 schedules.

13. Discussion of the FY'17 Scheduling Options

Susan Humphris led the Board in a discussion of potential schedules, their scientific importance and impact, as well as cost implications. She asked the JRFB to please think about the options and be prepared to state (tomorrow) which schedule they would like to implement in FY'17 to achieve the best science in a cost effective way.

14. Guidelines for Joint IODP-ICDP "Amphibious" Drilling Proposals (ADPs)

Keir Becker reported on the progress of the subcommittee developing guidelines for the joint review of IODP-ICDP Amphibious Proposals. He presented the Guidelines document that was accepted by the EFB and CIB, and said that it would be implemented for the 1 October 2015 proposal deadline if JRFB approved it.

Karsten Gohl asked the subcommittee to clarify who is responsible for core storage and publication costs. While he didn't think it would be a problem, most ADPs would likely be MSPs directed to ECORD.

Brijesh Bansal and Anthony Koppers expressed their concern with the review schedule and how the SEP and ICDP's Science Advisory Group (SAG) will present their evaluations. Keir presented a graphic that illustrated that the entire process would take two to three years, with the workshop step taking the place of an IODP pre-proposal review. And, while the SEP and SAG will see the proposals at separate meetings, they will write a single integrated review to present to the proponent.

Susan called for consensus from the board to approve this concept and looked forward to trying to implement it, as there undoubtedly will be issues along the way.

Christina Ravelo asked Holly Given to comment on the impact on the SSO. Holly stated that we currently have an ADP in the system and it has given the SSO a good view of potential issues. She expressed concerns that SEP decisions would deviate from Keir's graphic (for example, by requesting a revision). She said that new policies and new coding will be needed to address continental site management in the proposal (PDB) and data (SSDB) systems. Holly assured the board that in principle the SSO can implement any requests from the JRFB.

Susan received the Board's consensus and their agreement to work on details with the SSO.

Consensus 3

The JRFB approves the Guidelines for Joint IODP-ICDP "Amphibious" Proposals and agrees to move forward with implementation in conjunction with the ICDP and the IODP Science Support Office.

15. Retiring Inactive Proposals

Holly Given presented a list of proposals with no activity for five years or more and asked if the Board wanted to formulate a guideline for removing inactive proposals from the system. Michiko Yamamoto reminded the Board that the last time dormant proposals were culled from the system was four years ago by the Proposal Evaluation Panel (PEP).

The Board agreed that proposals at the Facility Boards may simply be waiting on the ship track or funding and hence should not be deactivated. Proponents of SEP proposals with five years of inactivity should be contacted and asked if they plan a formal response to the last review (formal response options will be identified in the correspondence). If they have no such plans, the proposal will be deactivated.

Consensus 4:

The JRFB approves the plan to contact proponents (via e-mail) of inactive (>5 years) proposals at SEP to update or deactivate their proposal.

Action Item 3

Susan Humphris will draft e-mails to proponents who have proposals at SEP that have been inactive for 5 years or more. Each e-mail will ask if the proponent is planning to update their proposal, and if they respond that they will not, the SEP will deactivate the proposal. The exception is Proposal 705: Santa Barbara Basin Climate Change, which will be deactivated because implementation is impractical.

Wednesday	13 May 2015	8:30 – 18:00
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16. Development of a FY'17 JR Schedule

Anthony Koppers chaired this session because Chair Susan Humphris was conflicted as noted above. Both Susan Humphris and Mike Coffin were excused from the meeting for this agenda item.

Consensus 5

The JRFB recommends Proposal 505/693-APL: Mariana Convergent Margin and South Chamorro Seamount (one expedition) and Proposal 878-CPP: South China Sea Rifting (two expeditions) for scheduling in FY'17. Furthermore, the JRFB recommends that Proposal 760: SW Australia Margin Cretaceous Climate be first on the FY'18 schedule, and that Proposal 781A: Hikurangi be scheduled sometime during FY'18. The expectation of the JRFB is that there will be 10 months of operations in FY'18 and 10 months of operation in FY'19 as a result of scheduling the CPP.

17. Long-Term Cruise Track of the *JOIDES Resolution*

Consensus 6

The JRFB affirms that, based on current and anticipated proposal pressure, the *JOIDES Resolution* will follow a path from the southwestern Pacific Ocean, through the Southern Ocean, and into the Atlantic Ocean for opportunities for drilling there starting in FY'19. The JRFB further expects that the JR will operate in the Atlantic, Mediterranean, Caribbean, and Gulf of Mexico over the next few years.

Susan Humphris asked that meeting attendees keep the selected expeditions confidential, and stated that she will inform proponents of the Board's scheduling decisions within a week. Holly Given pointed out that ALL discussions of proposals are ALWAYS confidential.

18. The JR Science Operator Draft FY'16 Annual Program Plan

Brad Clement, JR Science Operator Member, presented an overview of the JR Science Operator (JRSO) Annual Program Plan. He highlighted the previous four expeditions' successes, and asked the meeting attendees for feedback on the new IODP publications design.

Brad confirmed that NSF would carry the risk for fuel prices and equipment replacement as well as contingency for cost increases exceeding 5%. He also noted that low fuel prices diminish the interest in commercial use of the JR. Therefore, the most likely off-program work is the core work (XRF scanning) requested by the ICDP program (see Item 24 below).

Jamie Allan reiterated to the Board that NSF has fiduciary responsibility for the JRSO and the SSO, and Susan Humphris reminded the Board that they are approving the activities proposed rather than the details of the budgets. Susan asked that this draft be discussed and approved (in principle) and the group will follow up with a final approval by e-mail.

Consensus 7

The *JOIDES Resolution* Science Operator FY'16 Annual Program Plan is approved in principle. A final plan will be circulated for approval by e-mail in July 2015.

Moratorium Discussion

Jamie Allan asked the Board to consider if the moratorium period should change in response to the desire for more extensive post-cruise sampling: if so, by how much? At present, one expedition has extended their moratorium period to 1.5 years based on post-cruise sampling. Does the Board feel this is acceptable for proponents who provide external funding for the post-cruise sampling?

Christina Ravelo and Anthony Koppers agreed with Jamie's proposal to limit the moratorium to 18 months maximum. They agreed that it is important to stress to the community their need to reduce the impact to the IODP by finding external sources to fund additional sampling requested, as well as associated core transportation (See Agenda Item 24).

Consensus 8

The JRFB recommends that the moratorium period for each expedition be a maximum of 18 months post the end-of-expedition.

Action Item 4

The JRFB Chair will request that ECORD and CIB approve the moratorium statement by e-mail.

19. The Science Support Office Draft FY'16 Annual Program Plan

Holly Given presented a summary of the financial and task aspects of the SSO FY'16 Annual Program Plan. She summarized the SSO supported software and hardware systems, the changes made to these systems in the past year, and the changes planned for the next year. Anthony Koppers commented that considering the limited resources, SSO is moving in the right direction on all software and web site updates/upgrades. Jamie Austin offered to augment the SSO's web site work by coordinating with his staff (as he has institutional support for IODP web work).

Holly noted that the SSO is working with NSF to loosen the general policy regarding reviewer conflicts. Under the current policy, most proponent-recommended reviewers were conflicted because they were co-proponents on some other active IODP proposal. Jamie Allen pointed out that this current policy is far more restrictive than the NSF policy. The better policy would have a reviewer be conflicted only if he/she is a listed proponent for the proposal being reviewed. Susan Humphris agreed that the more restrictive policy is not something we need to continue.

Holly highlighted the SSO's successful management of a cyber-attack, and noted that Jamie Allan requested that an SSO representative attend the NSF Cyber Security Summit in the fall to present the experience as an example of what to do for other people overseeing NSF-related systems.

Jamie Allan expressed support for the increase to the SSO budget relative to FY'15 to support additional requested tasks.

Consensus 9

The Science Support Office FY'16 Annual Program Plan is approved in principle. A final plan will be circulated for approval by e-mail in July 2015.

20. Recent Database Development Ideas

Jamie Allan and Brad Clement summarized current data management and access systems, as well as future data management, publication, and archival options. The ideal system would be easy searchable, machine discoverable, persistent, have a digital object identifier (DOI), and publish the DOI associated with publications (not data). Jamie presented cost concerns, access vs. security issues, and community needs. He also stressed the lack of definition of "archive" as troublesome to all who work with data management. Heiko Pälke, Brad Clement, and Anthony Koppers explained their experience with data extraction tools and archiving, and stressed that these are very complicated processes.

Jamie stated that NSF is at the point of discovery, and it's yet to be determined how they will move forward. EarthCube seems to be the only option for movement within NSF and Anthony opined that EarthCube would not be excited about what IODP is proposing. He feels it is critical that the IODP have a deep archive. The publishing world is moving rapidly, and they're moving away from relational databases. It's risky to do nothing.

Susan Humphris asked what the JRFB should do regarding this issue? Susan and Jamie agreed that the Board should follow the issue and continue to develop a perspective over the next several years.

Action Item 5

A subgroup consisting of Heiko Pälike, Anthony Koppers, and Jamie Allan will consider Data Development issues and the path forward for IODP data.

21. The Nagoya Protocol: Impacts on IODP Expeditions

Mitch Malone presented a summary of IODP understanding regarding the Nagoya Protocol to the Convention on Biodiversity, which concerns biological sampling within Exclusive Economic Zones (EEZs). He noted that each signatory country can interpret the protocol differently, and it will be an evolving process. Mitch stated that the JRSO would likely be required to include the specifics of the microbiological study in the *a priori* clearance request, therefore, the proponent must be active in the process of obtaining approval, and having a collaborator in the country of interest might be helpful toward the process of approval.

Unknown items:

- Is approval required for an expedition or for each researcher on the expedition?
- Does this apply to sample requests from the core repositories? Kochi Core Repository was told that researchers could not publish data from analyses of unapproved samples.

The most challenging situations for the IODP will be those expeditions with no microbiological component established at the time their clearance application is placed. Mitch stressed that while the timeline for getting microbiological sampling approvals will be highly variable for each country and will likely not match the timeline for clearance and staffing, we need to identify microbiological studies as far in advance as possible: seven months prior to the expedition will likely be too late to add microbiological sampling. Brad Clement stated that we might have to turn down microbiology sampling proposed in EEZs.

Holly Given mentioned that the program has the mechanism of the PDB site forms to track this early in the process, and Susan Humphris suggested that the SEP should mention this issue to the proponents.

22. Are We Effectively Communicating Expedition Opportunities?

John Jaeger presented the review practices and staffing information obtained in a recent Consortium for Ocean Leadership (COL) study. He summarized how the USSSP reviews expedition staff applications and makes nominations, and he presented the national distribution and levels of experience of applicants.

Based on this information, the United States Advisory Committee (USAC) requested that:

- The JRSO have the expedition prospectus available at the time the staffing call is circulated, or that the JRSO and/or the expedition Co-Chiefs provide a more detailed description of the scientific objectives critical to each expedition, for USSSP's use in advertising. This detailed description should emphasize the areas of specialization needed on board (approximate number in each role).
- The JRSO provide a better description of the application procedures.
- The JRSO place a description of the philosophy of how expeditions are staffed on their web site, and update it as memoranda of understanding (MOU) are changed.

Susan Humphris has seen COL's video presentation regarding the expedition staffing process and feels that placing this on the web site would also be very helpful. She noted that because staffing is platform-specific, the individual Facility Boards should review the materials used. Mitch noted that the JR has a staffing procedure document (www.iodp.org/program-documents) and suggested this be reviewed and updated.

The JRSO and USSSP have been working to involve the next generation of researchers and scientists in IODP. The challenge is getting them to prepare and present applications sufficient to permit the selection of two to three graduate level or early career scientists for each expedition.

23. Membership of Curatorial Advisory Board

Susan Humphris reviewed the rotation of the Curatorial Advisory Board (CAB), and she stated that all three Facility Boards are responsible for replacing these individuals. The chairs of the Facility Boards (Yoshiyuki Tatsumi, Karsten Gohl, and Susan) will send a joint letter to the repository curators requesting nominations; the individual Boards will approve those nominations. This nomination and approval process will happen via e-mail over the summer.

Susan asked that, when nominating, the curators nominate people who deal with samples and sample requests: people who have experience with conflicts and sample request denials, and people who have experience with requests for archive halves and request for education and outreach purposes. While country affiliations of the members are not assigned, it would be good to have representation from within the repository countries.

Action Item 6

The chairs of the Facility Boards will request nominations from the curators for three positions on the CAB. The recommendations for the new members will be circulated to all three Facility Boards for approval.

24. Issues Relating to Shipping of Cores

Brad Clement presented information and led a discussion of this topic immediately following his presentation on 12 May 2015 (see Agenda Item 18: JRSO Draft Annual

Program Plan). The notes taken during that discussion were transferred to this location to better show completion of agenda topics.

Brad noted that while there is a slight chance of commercial work for the JR in FY'16, the most likely off-program work is core lab work (XRF scanning) requested by the ICDP. Of the work requested, the NSF would fund science party salaries, on-board insurance, tech support, core loading, lab supplies, and consumables. Brad pointed out that this opportunity would process large amounts of hard rock core, testing the JR's system for future expeditions that have large hard rock core recovery.

Heiko Pälike, Christina Ravelo, and Jamie Allan discussed the technical aspects of XRF scanning, the benefits to scientists in making on-board vs. post-cruise sampling decisions, and the technical limitations of the different systems available. All agreed that the ICDP results will be interesting.

Brad stated that the JRSO was not asking the Board to make a decision regarding future XRF requests, but to provide guidance or advice as to what the JRSO might tell proponents who request detailed (cm scale) XRF work. Jamie Allan stated that the IODP couldn't accommodate regular requests for detailed XRF scanning, because, at an estimated cost of \$1 million, we cannot increase the XRF capability of the ship. Core shipment to an XRF facility is far more practical at an estimate of \$10K per event.

Susan summarized the discussion by stating that the ICDP-type of detailed XRF scanning is not a normal situation, and that future requests for this level of detail as part of an IODP expedition is something the proponent should fund externally.

25. Membership of JRFB

Susan Humphris noted that the terms of Heiko Palike and herself will end on September 30, 2015. The USSSP will implement the process to replace two science members, one US-based and one non-US-based, by putting out a request for candidates. Nominations and recommendations will be provided to the JRFB for review and approval.

Susan spoke to Anthony Koppers and Christina Ravelo as potential candidates for the role of JRFB Chair. Anthony offered to serve as the chair and Christina offered to back him up. Susan asked if the Board is in agreement with this plan and she received consensus that Anthony Koppers should be the next chair with Christina as his back up.

Consensus 10

The JRFB approves the appointment of Anthony Koppers as its next Chair beginning on 1 October 2015.

Action Item 7

The JRFB Chair will request that USSSP solicit applications for the JRFB science member replacements for Heiko Pälike and Susan Humphris. Recommendations from this process will be circulated to the JRFB for approval.

26. Review of Consensus Statements and Action Items

The Board reviewed and approved the consensus and action items as presented at the head of these notes, with the addition of the following:

Consensus 11

The JRFB thanks Susan Humphris and Heiko Pälke for their service in the early years of the JRFB.

27. Other Business and Next JRFB Meeting

The JRFB discussed 2016 schedules for the following meetings:

- E-FB is scheduled for June 15-16, 2016.
- JRFB agreed to meet May 17-18, 2016.

Susan thanked NSF for hosting the meeting, the SSO for their hard work in supporting the meeting, and for all participants for their active participation.

Meeting adjourned at 3:00 pm.