



**ECORD Facility Board Meeting #8**  
**23 June 2020**  
*virtual meeting*

**MINUTES**

**AGENDA**

**Tuesday, 23<sup>rd</sup> June**

**14:00 – 16:30**

- 1. Introduction and meeting agenda approval** (G. Uenzelmann-Neben)
- 2. Budget constraints and ECORD strategy** (G. Camoin)
- 3. Report on Expedition 377: Arctic Ocean Paleoceanography (ArcOP)**
  - 3.1 - Drilling operations and costs (D. McInroy)
  - 3.2 - Future of ArcOP (G. Uenzelmann-Neben)
- 4. Scheduling of Expedition 386: Japan Trench Paleoseismology** (G. Uenzelmann-Neben, D. McInroy)
- 5. Proposed scheduling for 2022** (G. Uenzelmann-Neben)
- 6. Options for 2023 scheduling** (G. Uenzelmann-Neben)

## ROSTER

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\* Apologies

Gilbert Camoin as alternate for Stéphane Guillot

## 1. Introduction and meeting agenda approval

(14:04)

G. Uenzelmann-Neben opened the meeting.

### ECORD Facility Board Consensus 20-06-01:

The ECORD Facility Board approves the agenda of the ECORD Facility Board Meeting #8.

## 2. Budget constraints and ECORD strategy

(14:06)

At the moment ECORD has 15 member countries. France, Ireland and Spain are paying in euros, Denmark in kroners and the UK in pounds. This budget range does not include additional project-based cash and in-kind contributions. Annual national IKCs and science costs, which are in the order of about \$7M USD, are also not included. About 95% of the ECORD budget is spent on IODP expeditions. Every year, about \$5M USD are available for the implementation of MSP expeditions. ECORD contributes \$7.12M USD to the annual funding of the *JOIDES Resolution* and \$1M USD to the annual funding of the *Chikyu*.

G. Camoin summarized the ECORD budget situation for FY20.

ECORD FY20 member contributions

FY20 Contributions (US\$)	
DFG (Germany)	5,600,000
CNRS (France) *	3,908,000
UKRI (United Kingdom) *	3,364,000
Forskningsradet (Norway)	1,100,000
FNS (Switzerland)	600,000
NWO (The Netherlands)	600,000
CNR (Italy)	500,000
VR (Sweden)	400,000
MCIN (Spain) *	163,000
DAFSHE (Denmark) *	146,000
GSI (Ireland) *	109,000
CCOD (Canada)	106,000
ÖAW (Austria)	100,000
FCT (Portugal)	90,000
Academy of Finland	80,000
<b>TOTAL</b>	<b>16,866,000</b>
* Contributions in other currencies	

ECORD FY20 budget

ECORD FY20 Budget (US\$)		
FY19 balance	18,829,700	
FY20 contributions	16,866,000	
ECORD-NSF MoU		7,120,000
ECORD-MarE3 MoU		1,000,000 *
ESO		3,151,000 *
EMA		305,880
MagellanPlus		86,800
IODP Chairs Support		169,000
ESSAC		319,064
BCR		392,162
Outreach basic		66,400
<b>TOTAL</b>	<b>35,695,700</b>	<b>12,610,306</b>
<b>Expected FY20 balance</b>	<b>23,085,394</b>	
* X 386 postponed – operational costs deduced from budget		

FY19 ended with a positive balance of \$18.83M USD, which was carried over to FY20. Together with the FY20 member contributions of \$16.87M USD, the FY20 income will yield \$35.69M USD. The expenses will be of \$12.61M USD without the implementation of an MSP expedition in 2020. IODP Expedition 386 has been postponed and the operational costs have been deduced from the ECORD FY20 budget. FY20 should finish with a positive balance of \$23.08M USD. Potential additional contributions (cash, IKCs) are not considered in this calculation.

G. Camoin presented the MSP 2013-2023 operational plan:



There have been three years (2018-2020) without the implementation of MSP expeditions.

Following proposals are at the EFB:

**637-Full2:** New England Shelf Hydrogeology

**730-Full2:** Sabine Bank Sea-Level

**Expedition 373:** Antarctic Cenozoic Paleoclimate

**Expedition 377:** Arctic Ocean Paleoceanography (ArcOP)

**Expedition 389:** Hawaiian Drowned Reefs

G. Camoin continued to present the ECORD FY20-FY23 budget. Until the end of the current programme (FY22 and FY23) ECORD might spend about \$36M USD to implement MSP expeditions. IODP Expedition 386 had to be postponed from FY20 to FY21 due to the COVID-19 crisis.

ECORD FY20-FY23 budget (MUS\$)				
	FY 20	FY 21	FY 22	FY 23
Contributions	16.866	16.966	16.966	16.966
Total income	35.695	40.061	42.707	47.873
Est. fixed costs	12.6	11.32	11.8	11.8
MSP expeditions	X386 postponed	X386 (3.0)	TBD	TBD
Balance	23.095	25.741	30.907	36.073

### 3. Report on Expedition 377: Arctic Ocean Paleoceanography (ArcOP)

#### 3.1 - Drilling operations and costs

(14:14)

D. McInroy presented an update on the planning and scoping of Expedition 377: Arctic Ocean Paleoceanography (ArcOP).

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### **3.2 - Future of ArcOP**

(14:24)

DISCUSSION about IODP Expedition 377:

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#### **ECORD Facility Board Consensus 20-06-02:**

The ECORD Facility Board recommends to schedule IODP Expedition 377: Arctic Ocean Paleoceanography (ArcOP) in FY22 or alternatively in FY23 within the ECORD budget limit previously agreed by the ECORD Council at its November 2019 annual meeting. A decision has to be taken before 31 October 2020.

### **4. Scheduling of Expedition 386: Japan Trench Paleoseismology**

(15:06)

D. McInroy summarized the status of IODP Expedition 386, which had to be postponed due to the COVID-19 outbreak. At the moment all joint planning with MarE3 is on hold, but this expedition could be easily reactivated for next year with the same scheduling timeline. The Science Party staffing has been completed and will be kept. Only those who may not be able to commit to the rescheduled dates will be replaced. The IODP operators shared the COVID-19 measures that might need to be taken on future MSP expeditions, for example extra medical checks and quarantine periods.

### **5. Proposed scheduling for 2022**

(15:11)

G. Uenzelmann-Neben gave an overview of MSP proposals at the EFB, which could be potentially scheduled for FY22, in case ArcOP cannot be implemented within the budget.

### **637-Full2: New England Shelf Hydrogeology**

In fall 2017 the proponents submitted an addendum as a result of a workshop, which was held in May 2017. They reduced the number of sites from five to three at water depths of 33-79 m and penetration depths of down to 550 mbsf at each of the three sites. A geotechnical vessel or a large liftboat could be used. The descoped proposal with fewer, shallower holes and wireline logging offers a significant cost reduction compared to past versions of the proposal. The proponents still desire casing, packing and pumping.

### P637 New England Shelf Hydrogeology

Lead proponents: Brandon Dugan and Mark Person

Water depths:	33 – 79 m	Timing:	March - August
Penetration:	3 x 550 mbsf (1 hole at each site)	Constraints:	Avoid hurricanes and winter storms
Lithologies:	Sands, silts and clays.	Permitting:	US Federal and State
# of sites	3 primary, 1 alternate	IKC Potential	None identified to date

#### Key scoping findings

- Proposal de-scoped in Fall 2017: fewer, shallower holes, wireline logging in lieu of LWD, still desire casing, packing and pumping.
- De-scoped proposal offers a significant cost reduction compared to past versions of proposal.
- Vineyard Wind: EIA decision expected April 2019, construction until March 2020:
  - No spatial overlap with IODP New Jersey drilling.
  - No temporal overlap, so no opportunity to take advantage of any geotechnical vessels that might already be in the working area.

### IODP Expedition 389: Hawaiian Drowned Reefs

Eleven primary sites and nine alternate sites were proposed. The water depths range from 134 to 1154 m. Penetration depths are 55-170 mbsf with four holes at  $\geq 120$  mbsf. A geotechnical ship with coring rig, a research vessel as IKC with a seafloor drill or a hired vessel with a commercial seafloor drill could be used. The deepest proposed penetration is 170 mbsf. Seafloor drill limitations mean sites  $< 120$  mbsf are now targeted. A geotechnical vessel is not recommended due to permitting issues. The weather conditions and the presence of whales allow drilling only in March-April and September-October time windows. In 2018 the EFB scheduled the expedition for September-October 2019. In March 2019 the postponement was announced.

### P716 / X389 Hawaiian Drowned Reefs

Co-chief Scientists: Jody Webster and Christina Ravelo

Water depths:	134-1154 m	Timing:	Apr-May or Sep-Oct, year TBD
Penetration:	55-170 mbsf (4 are $\geq 120$ mbsf)	Constraints:	Whale season, weather (swell)
Lithologies:	Carbonates, minor volcanics	Permitting:	US Federal and State
# of sites	11 primary, 9 alternate	IKC Potential	Research vessel, none arranged

#### Key scoping findings

- Derrick-based rig less likely to achieve successful permitting, therefore discounted.
- Seafloor drill limitations mean sites  $< 120$  mbsf are now targeted (excludes 4 sites). Deeper sites may become feasible if depth capability (speed) improves.
- Permitting work was well progressed for 2019 implementation, content will still largely apply in future.
- Rescheduling opportunity most likely in 2022 (Apr-May) or 2023 (Apr-May if no X373, or Sep-Oct).

### IODP Expedition 373: Antarctic Cenozoic Paleoclimate

The water depths range from 353 to 1407 m. Penetration depths are 16 x 50 mbsf. A 2018 contract notice exercise suggests that commercial vessel options are likely to be beyond budget. The *RVIB Nathaniel B. Palmer* would not be an IKC, but a contract arrangement. A promising option is the new Australian research and supply icebreaker *RSV Nuyina*. The first cruise will be in the 2020-2021 Antarctic summer season and the first science-dedicated cruises will be from 2021-2022 (COVID-19 delay).

<b>P813 / X373 Antarctic Cenozoic Paleoclimate</b>			
Co-chief Scientists: Trevor Williams and Carlota Escutia			
Water depths:	353 – 1407 m	Timing:	Dec 2022 – Feb 2023
Penetration:	Up to 16 x 50 mbsf	Constraints:	Minimum ice season
Lithologies:	Semi-lithified siltstone, mudstone, sandstone, conglomerate, lignite	Permitting:	Antarctic Treaty, UK FCO consulted
# of sites	16 primary, 47 alternate	IKC Potential	RSV <i>Nuyina</i> , not agreed
<b>Key scoping findings</b>			
<ul style="list-style-type: none"> <li>• 2018 contract notice exercise suggests commercial vessel options are likely to be beyond budget.</li> <li>• NBP? Would not be an IKC, it would be a contract arrangement (add \$5.5M in 2017).</li> <li>• Promising option: new Australian research and supply icebreaker, RSV <i>Nuyina</i>.</li> <li>• <b>First cruise 2020-21 Antarctic summer season – testing of science systems (Covid-19 delay)</b></li> <li>• <b>First science-dedicated cruises from 2021-22 (Covid-19 delay)</b></li> </ul>			
<b>Decisions and actions required</b>			
<ul style="list-style-type: none"> <li>• ESO will continue to liaise with the Australian Antarctic Division (AAD) on potential availability, technical specifications to accommodate a seafloor drill, and costs.</li> <li>• IKC will need to be negotiated and agreed between ECORD and the AAD (a division of Department of Environment and Energy). If IKC is to become associated with IODP membership, then ANZIC will also be involved.</li> </ul>			

## 730-Full2: Sabine Bank Sea-Level

The PI has not been responsive over the last two years.

### DISCUSSION about scheduling for 2022:

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## 6. Options for 2023 scheduling

(15:45)

G. Uenzelmann-Neben presented five MSP proposals at the EFB and SEP, which could be potentially scheduled for FY23.

**IODP Expedition 373: Antarctic Cenozoic Paleoclimate** (see Agenda Item 5)

**IODP Expedition 377: Arctic Ocean Paleoceanography (ArcOP)**

**IODP Expedition 389: Hawaiian Drowned Reefs** (see Agenda Item 5)

## 915-Full: North Atlantic Fjord Sediment Archives

<b>P915-Full: North Atlantic Fjord Sediment Archives</b>			
Lead proponent: Jacques Giraudeau			
# of sites	33 primary, 26 alternate, 2 holes per site	Timing:	August to October (to avoid Svalbard ice)
Water depths:	92-855 m (pri and alt)	Constraints:	Weather / ice
Penetration:	1 x 640 mbsf (p), 1 x 435 mbsf (a), 15 between 200-70 mbsf (9p, 6a), 42 < 70 mbsf (23p, 19a). <b>Total coring 4910 m!</b>	Permitting:	Norwegian EEZ
Lithologies:	Glacimarine and hemipelagic sediments, occasional debris	IKC Potential	Research vessel to carry GPC, seafloor drill, other corers (if used), none arranged

### Key scoping findings / items requiring further work

- Various approaches are possible – APC, GPC, seafloor drill, multicorer.
- JR could be used for some sites.
- Total penetration is too high for MSPs – 1700m of core is roughly achievable, considering the long transits.
- De-scoping required: e.g. split into legs, single coring, drop sites, focus on using one coring technology.

### Decisions and actions required

- Awaiting revision at SEP.

## 931-Pre: East Antarctic Ice Sheet Evolution

<b>P931-Pre: East Antarctic Ice Sheet Evolution</b>			
Lead proponent: Amelia Shevenell			
# of sites	7 primary, 6 alternate, assumed 1 hole per site	Timing:	January – March
Water depths:	336-679 m (pri and alt)	Constraints:	Weather / ice
Penetration:	200 mbsf each site. Maximum core ~1400m.	Permitting:	Antarctic Treaty, UK FCO consulted
Lithologies:	Diamict, silt, sand, and mud	IKC Potential	Research vessel to carry seafloor drill, none arranged

### Key scoping findings / items requiring further work

- Assumed 60 days project, ~14 days transit, 46 days on site.
- MeBo200 would be an appropriate corer.
- Might expect to do all sites to 150 mbsf, with 3-4 extended to 200 mbsf.
- Possibility of ANDRILL-style drilling system? Are ice platform conditions suitable?
- Proponents ready to engage with ESO to discuss coring technology & strategy.

### Decisions and actions required

- Pre-proposal, awaiting full submission.

### DISCUSSION about scheduling for 2023:

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### **ECORD Facility Board Consensus 20-06-03:**

The ECORD Facility Board recommends to schedule IODP Expedition 389: Hawaiian Drowned Reefs in FY22 if IODP Expedition 377: Arctic Ocean Paleoceanography (ArcOP) is scheduled in FY23.



**ECORD Facility Board Consensus 20-06-04:**

The ECORD Facility Board recommends to schedule an expedition based on IODP Proposal 637: New England Shelf Hydrogeology in FY22, in case IODP Expedition 377: Arctic Ocean Paleoceanography (ArcOP) cannot be implemented in the current programme. A decision has to be taken before 31 October 2020. Scheduling of an MSP expedition in FY23 will need to be reconsidered.

**ECORD FB Action Item 1: EMA**

To inform the ECORD Council members about the postponement of the ECORD Council e-meeting concerning the MSP scheduling for FY22, which was initially planned on 30 June 2020. This e-meeting will be organized when the opportunities offered by the Swedish Polar Research Secretariat (SPRS) and the Russian Ministry of Natural Resources for the implementation of IODP Expedition 377: Arctic Ocean Paleoceanography (ArcOP) will have been properly investigated.

**ECORD FB Action Item 2: EMA**

To contact Jacques Giraudeau (University of Bordeaux, France), Lead Proponent of IODP Proposal 915-Full: North Atlantic Fjord Sediment Archives, to clarify plans for resubmission of this MSP proposal to SEP.

**Acknowledgements****ECORD Facility Board Consensus 20-06-05:**

The ECORD Facility Board warmly thanks Tatsuya Watanabe for his service and dedication to serving on the ECORD Facility Board over the last years, during which he demonstrated his high knowledgeability and enthusiasm. It has been a great pleasure to work with him over his term and we wish him well in his life after EFB and his forthcoming endeavours.

The meeting was closed at 16:21.