EPSP Meeting – May 2-3, 2017
Texas A&M University
College Station, TX

Meeting called to order at 08:30 by Chair Barry Katz.

Meeting logistics. Barry Katz reminded all of the panel's approach to conflicts of interest – all meeting attendees are permitted and, in fact, encouraged to participate in the discussion on all proposal, but conflicted panel members are not to vote when conflicted. No conflicts were identified. The chair requested that only those that have signed the required non-disclosure agreement during the review and discussion of Proposal 887 and requested that all others leave the meeting room. Mitch Malone provided guidance on building facilities and safety.

Self-introductions (Part 1) – Panel members present were: David Campin, Brandon Dugan, Martin Hovland, Jennifer Jencks, Barry Katz (EPSP Chair), Phillippe Lapointe, David Long, David Mallinson (alternate), Greg Mountain (alternate), Jin-Oh Park, Donald Potts, Craig Shipp, and Minghui Zhao.

Proponents, presenters, liaisons and observers included: Jamie Allan (NSF), Ray Boswell (887-CPP2), George Claypool (TAMU Safety Panel), Brad Clement (JRSO), Neil DeSilva (TAMU Safety Panel), Anthony Koppers (JEFB Chair), Mitch Malone (JRSO), Tim McHargue (TAMU Safety Panel), Steve Midgley (JRSO), Manasij Santra (887-CPP2), Derek Sawyer (887-CPP2), Bill Shedd (887-CPP2), and Michiko Yamamoto (SSO)

Review – Proposal 887 (CPP) – Gulf of Mexico Hydrate – Derek Sawyer assisted by Manasij Santra and Eric Scott presented the proposal to the panel. This began with a brief scientific overview. The primary objective of the program is to gain a better understanding of the methane migration mechanisms in coarse-grained gas hydrate systems. This is to be studied through the acquisition of pressure cores in these systems. Multiple mechanisms have been proposed, with each having a different hydrate distribution within these sediments. The distribution of hydrate will be compared to the observed distribution and provide guidance on the mechanism. These tests will be conducted at multiple locations, with different effective stresses, temperatures, and seismic character. This discussion was followed by a site-by-site review. It was noted that both the depth uncertainty and the "rat hole" to accommodate logging tools have been incorporated into the requested depths.

Site	Latitude (°)	Longitude (°)	Depth (mbsf)	Remarks
TBONE-01B	26.66256320	-91.67643312	1045	Recommended approval as requested. The panel requests that the B and C holes be position down-dip to the west of the A hole.
TBONE-02A	26.66040000	-91.67420000	828	Recommended for approval but will require a map of the interval between horizons 400 and 500 to confirm limited continuity of mass transport deposits. LWD will be required prior to coring.
TBONE-03B	26.66328353	-91.68423560	1111	Recommended for approval but will

Site	Latitude (°)	Longitude (°)	Depth (mbsf)	Remarks
				require a map of the interval between horizons 400 and 500 to confirm limited continuity of mass transport deposits.
TBONE-08A	26.66096730	-91.67433681	841	Recommended approval to revised depth. LWD is required prior to coring.
TBONE-05B	26.65800758	-91.67256401	947	Recommended approval to revised depth. LWD is required prior to coring.
TBONE-06B	26.64717191	-91.69306573	1176	Recommended approval as requested. LWD is required prior to coring.
TBONE-07B	26.64401999	-91.69103374	896	Recommended approval to revised depth. LWD is required prior to coring.
ORCAB-11A	26.84999155	-91.32799574	584	Not recommended for approval at this location. Repositioned to ORCAB-11B
ORCAB-11B	26.85046319	-91.32745587	574	Recommended for approval to replace ORCAB-11A.
ORCAB-12A	26.85595148	-91.3246347	591	Recommended approval as requested.
ORCAB-13A	26.84604421	-91.33424426	644	Not recommended for approval.
ORCAB-14A	26.85092488	-91.32865802	581	Recommended approval to revised depth, with the understanding that there may be a limitation on logging.
ORCAB-15A	26.85475382	-91.32860176	581	Recommended approval as requested.
ORCAB-16A	26.85715188	-91.32628933	572	Recommended approval as requested.
ORCAB-17A	26.84587601	-91.33270629	558	Recommended for approval to replace ORCAB-13A.
MADDOG-05A	27.16867366	-90.34226569	725	Recommended approval as requested.
MADDOG-06A	27.16500118	-90.338985897	522	Recommended approval as requested.

All attendees that had been asked to leave the meeting room returned.

Self-introductions (Part 2) of those proponents, observers and liaisons not associated with 887-CPP2 including: Nathan Bangs (908APL), Peter Blum (JRSO), Kara Bogus (JRSO), Helen Feng (SSO), Sean Gulick (SEP Co-Chair), David Hodell (771-Full2), Tobias Hoefig (JRSO), Brian Huber (834-Full2), Denise Kulhanek

(JRSO), Frank Lamy (912-Full), Leah LeVay (JRSO), Dan Lizarralde (833-Full2), Yasmina Martos (902-Full), Katerina Petronotis (JRSO), Ross Parnell-Turner (771-Full2), Andreas Teske (833-Full2)

Meeting logistics were provided by Mitch Malone, including information on a reception being held for meeting participants.

Review Proposal 908 (APL) – Costa Rica Megathrust fluid pressure – Nathan Bangs presented a brief scientific overview. The primary objective of the proposed program is the testing of mechanisms for pore pressure evolution along the megathrust. The drilling program will examine fluid composition associated with two deeply rooted faults – one tied to the megathrust and another associated with the margin wedge – to assess flow activity. This presentation was followed by a site-by-site review.

Site	Latitude (°)	Longitude (°)	Depth (mbsf)	Remarks
CRX-01B	8.779	-84.1022	300	Not recommended for approval.
CRX-01C	8.77875	-84.10249	450	Recommended for approval at this new location.
CRX-02A	8.7797	-84.1047	350	Recommended for approval to revised depth.
CRX-03A	8.7790	-84.1008	400	Recommended for approval to revised depth.
CRX-04A	8.7914	-84.1146	350	Recommended for approval to revised depth.
CRX-05A	8.792	-84.1095	320	Recommended for approval to revised depth.
CRX-06A	8.778	-84.1212	350	Recommended for approval to revised depth.

Meeting went to recess at 17:00

Meeting was called back into session at 08:30 on May 3, 2017.

Review and revise ongoing South China Sea Expedition 368. A video conference discussion was held with Hans Christian Larsen to review potential additional sites and to re-examine prior recommendations of the panel for approval and operational plans. The panel was reminded that the objectives of the program were: 1) establish the nature of basement; 2) determine the time lag between plate rupture and crustal generation; 3) refine the understanding of the kinematics of break-up; and 4) examine the regional Cenozoic tectonic and environmental development. A site-by-site review followed the scientific overview.

Site	Latitude (°)	Longitude (°)	Depth (mbsf)	Remarks
SCSII-23A				Panel requested that the site be repositioned further to the southeast along ling 15ecLW7
SCSII-23B	18.65437	116.11895	740	Panel suggested relocation of SCSII-23A to CDP number 7900 along line

Site	Latitude (°)	Longitude (°)	Depth (mbsf)	Remarks
				15ecLW7
SCSII-24A	18.6397	116.1276	530	Recommend approval as requested.
SCSII-27A	18.8484	116.2423	250	Recommend approval as requested.
SCSII-16A	18.4701	116.2272	846	Panel has reconsidered its prior recommendation not to recommend approval of the site based on recent drilling results and now recommends approval as requested, with approval to washdown without coring to 500m
SCSII-18A	18.45679°N	116.23505°E	1260	Operational plan changed to permit the washdown to 758m
SCSII-9B	18.14383°N	116.31410°E	1827	Operational plan changed to permit the washdown without coring to 1km.

Review Proposal 833 (Full2) – Guaymas Basin Activity – Andreas Teske and Dan Lizarralde presented a brief scientific overview. The objectives of the drilling program is to focus on the chemical and microbial processes driven by igneous sill intrusion into the sediment and the associated implications on the carbon cycle, changes in ocean chemistry, the deep biosphere, and limits of life. This overview presentation was followed by a site-by-site review.

Site	Latitude (°)	Longitude (°)	Depth (mbsf)	Remarks
GUAYM-01B	27.6372	111.8890	600	Recommended for approval as requested.
GUAYM-02B	27.6314	-111.8799	600	Recommended for approval as requested.
GUAYM-03B	27.5041	-111.6811	200	Recommended for approval to modified depth. Camera image of site required before drilling to ensure no seeps communities are present.
GUAYM-12A	27.5076	-111.6783	200	Recommended for approval to modified depth. Camera image of site required before drilling to ensure no seeps communities are present.
GUAYM-04B	27.2089	-111.2236	650	Recommended for approval pending confirmation of the areal extent of the MDT identified at approximately 3.15 sec TWT.
GUAYM-11A	27.2009	-111.2114	450	Recommended for approval as requested.
GUAYM-15A	27.2065	-111.2199	670	Recommended for approval as requested.
GUAYM-06B	27.2557	-111.5056	250	Recommend for approval as requested.

Site	Latitude (°)	Longitude (°)	Depth (mbsf)	Remarks
GUAYM-09B				Not recommended for approval.
GUAYM-13A				Not recommended for approval.
GUAYM-14A				Not recommended for approval.
GUAYM-10B	27.5548	-111.5494	200	Recommended for approval to modified depth. Camera image of site required before drilling to ensure no seeps communities are present.
GUAYM-16A	27.4721	-111.4797	182	Recommended by the panel at CDP15070 line SO008 to a depth equivalent to 2.69 sec TWT. The panel also recommends that a sea surface bubble watch be implemented during drilling.

Review Proposal 902 (Full) – Iceberg Alley Paleoceanography – Yasmina Martos presented a brief scientific overview. The overall objective of the drilling program is to reconstruct the Antarctic Ice Sheet evolution from the Middle Miocene onward by: 1) examining an spatially integrated record of the variability in iceberg flux; 2) reconstruct atmospheric circulation changes in the southern hemisphere; and 3) examine changes in water mass composition, including Drake Passage flow through. This overview was followed by a site-by-site review.

Site	Latitude (°)	Longitude (°)	Depth (mbsf)	Remarks
SCO-14	-59.8000	-41.7600	592	Recommended for approval as requested within the proposed shot point range.
SCO-13	-59.4410	-41.0610	556	Recommended for approval ±350m from proposed position
SCO-15	-59.8520	-41.4530	488	Recommended for approval within the proposed shot point range to the northeast only to the new depth
SCO-18	-59.1108	-40.9062	673	Recommended for approval within the proposed shot point range to thethe new depth.
SCO-17	-57.7055	-43.3620	732	Recommended for approval within the proposed shot point range to the new depth.
SCO-11	-57.4421	-43.3578	620	Recommended for approval within the proposed shot point range to the new depth.
SCO-01	-57.4333	-43.4500	590	Recommended for approval within the proposed shot point range to the new depth.
SCO-12	-57.6466	-43.5000	556	Recommended for approval within the

Site	Latitude (°)	Longitude (°)	Depth (mbsf)	Remarks
				proposed shot point range.
SCO-16	-57.7055	-43.5001	810	Recommended for approval within the proposed shot point range to the new depth.
SCO-19	-57.4285	-43.5000	444	Recommended for approval within the proposed shot point range to the new depth.
SCO-21B	-61.7709	-40.2749	468	Recommended for approval as proposed.

Review Proposal 834 (Full2) – Agulhas-Transkei Transect – Brian Huber presented a brief scientific overview. The key scientific objectives identified are: 1) establishing the origin and age of the Agulhas Platform and Transkei Basin; 2) determining the timing, causes, and effects of the rise and collapse of the Cretaceous Hothouse; 3) determining the roles of productivity, temperature and circulation at high latitudes during Cretaceous Oceanic Anoxic Events; and 4) examination of the opening of Southern Ocean gateways. This presentation was followed by a site-by-site review.

Site	Latitude (°)	Longitude (°)	Depth (mbsf)	Remarks
TB-02A	-35.4749985	29.6793995	1100	Recommended for approval to revised depth.
TB-01A	-35.6805992	29.6501999	950	Recommended for approval as requested.
AP-08A	-37.1655011	24.7980995	500	Recommended for approval to revised depth.
AP-09B	-40.7859001	26.6068993	540	Recommended for approval as requested.
AP-07A	-37.0250015	24.9953003	300	Recommended for approval as requested.
AP-10A	-39.9510994	26.2362003	670	Recommended for approval as requested. Deeper basement penetration is approved.
AP-06A	-40.0663986	25.5009003	400	Recommended for approval as requested.
AP-11A	-40.0671997	24.2537994	770	Recommended for approval as requested.
AP-05A	-40.0082626	25.2681999	500	Recommended for approval to revised depth.
AP-12A	-40.0681992	24.5436993	800	Recommended for approval as requested.
AP-04B	-41.2951012	26.1151009	900	Recommended for approval as requested.
AP-13A	-40.0671997	24.1895008	620	Recommended for approval as requested.

Site	Latitude (°)	Longitude (°)	Depth (mbsf)	Remarks
AP-03A	-41.2631989	26.3272991	500	Recommended for approval as requested.
AP-14A	-40.7178993	26.0069008	700	Recommended for approval to revised depth.
AP-02A	-40.8604012	27.2537003	700	Recommended for approval as requested.
AP-01A	-40.8800011	27.4428997	350	Recommended for approval as requested.

Review Proposal 912 (Full) – Drake Passage Paleoceanography – Frank Lamy presented a brief scientific overview. The primary objective of the drilling proposal was to assess the role of the Southern Ocean in climate change through an examination of a series of interactions, feedbacks, and sensitivities. Specifically, the program will examine the roles of the Drake Passage and South Pacific dust and the implications for "dust fertilization". This overview was followed by a site-by-site review.

Site	Latitude (°)	Longitude (°)	Depth (mbsf)	Remarks
CHI-1B	-55.50250	-71.60222	300	Recommended for approval as requested.
CHI-4B	-52.7048	-75.5965	500	Recommended for approval as requested.
CHI-5A	-52.7227	-75.6077	500	Recommended for approval as requested.
ESP-1B	-54.5844	-76.6765	400	Recommended for approval to revised depth.
CSP-1A	-54.2126	-125.4258	230	Recommended for approval to revised depth.
CSP-2B	-56.1510	-115.1341	300	Recommended for approval as requested.
CSP-3A	-60.7361	-115.9063	300	Recommended for approval as requested.

Review Proposal 771 (Full2) – Iberian Margin Paleoclimate – David Hodell and Ross Parnell-Turner presented a brief scientific overview. The scientific objective of the proposal was to extend the oxygen climate record through the Plio-Pleistocene and to characterize changes in North Atlantic water masses through the same time interval using sampling along a water depth transect. This presentation was followed by a site-by-site review.

Site	Latitude (°)	Longitude (°)	Depth (mbsf)	Remarks
SHACK-4C	37.567	-10.128	400	Recommended for approval to revised depth.
SHACK-11B	37.622	-10.71	350	Recommended for approval to revised depth.

Site	Latitude (°)	Longitude (°)	Depth (mbsf)	Remarks
SHACK-8B	37.71	-10.493	450	Recommended for approval to revised depth.
SHACK-9B	37.845	-10.177	500	Not recommended for approval.
SHACK-10B	37.96	-9.517	500	Recommended for approval to revised depth, but will need to confirm position relative to cable.
SHACK-12A				Not reviewed too close to cable.
SHACK-13B	37.738	-10.49	450	Recommended for approval to revised depth.
SHACK-14A	37.581	-10.359	450	Recommended for approval to revised depth.
SHACK-15B	37.799	-10.194	500	Not recommended for approval.
SHACK-16B	37.53	-10.142	450	Recommended for approval as requested.
SHACK-17A	37.80291	-10.17962	550	Recommended for approval at new site positioned by EPSP at "Range 12 marker" on JC89 Line 23.

Depth Extension Request for Expedition 371 (Tasman Frontier) – Mitch Malone presented on behalf of the scientific party a request to extend drilling depths on three primary and three secondary sites.

Site	Latitude (°)	Longitude (°)	Depth (mbsf)	Remarks
LHRN-3A	-28.661971	161.740721	400	Recommend approval to revised depth.
NCTN-8A	-26.488587	166.528365	800	Recommend approval to revised depth.
NCTN-7A	-26.293248	166.549699	980	Recommend approval to revised depth.
NCTN-6A	-26.375984	166.557793	960	Recommend approval to revised depth.
NCTS-2A	-34.652186	165.827652	700	Recommend approval to revised depth.
NCTS-3A	-34.711508	165.872625	700	Recommend approval to revised depth.

Tentative meeting date planned for late September 2018 in College Station, TX.

Corrections to the last (2016) EPSP meeting minutes identified by Mitch Malone are:

- Proposal 751 (Ross Sea) EBOC-02B – longitude 178.09119°W
- Proposal 841-APL (Creeping Gas Hydrate) – TLC-05C approved to 155m

Review of added sites for Expendition 374 (Ross Sea) – Denise Kulhanek presented a brief reminder of the scientific objectives of the proposal, which had been previously been reviewed by the panel. Five primary objectives were noted: 1-reconstruct ice proximal atmospheric and oceanic temperatures to identify past polar amplification and assess its forcings/feedbacks; 2-assess the role of oceanic forcing (e.g. sea level and temperature) on marine ice sheet stability/instability; 3-evaluate the contribution of West Antarctica to far-field sea level estimates; 4-identify the sensitivity of WAIS to Earth's orbital configuration under a variety of climate boundary conditions; and 5-reconstruct Eastern Ross Sea bathymetry to examine relationships between sea-floor geometry, ice sheet stability/instability, and global climate. The request for additional sites was a result of the possibility of sea ice. This was followed by the site-by-site review.

Site	Latitude (°)	Longitude (°)	Depth (mbsf)	Remarks
RSCR-13B	-73.9175423	-175.349974	1000	Recommended for approval as requested.
RSCR-14A	-74.1502999	-176.795129	950	Recommended for approval as requested.
RSCR-15A	-73.9203	-174.5988	1000	Recommended for approval as requested.
RSCR-18A	-73.910571	-162.456325	650	Recommended for approval to the revised depth.
RSCR-19A				Not approved by the panel. The proponents will need to redisplay the data with a reasonable vertical exaggeration.
EBOCS-12A	-72.50159422	174.6883478	1050	Recommended for approval as requested.
EBOCS-13A	-72.5046448	173.68603	1150	Recommended for approval as requested.
EBOCS-10A				Not recommended for approval.
EBOCS-11A	-73.49652175	174.6760289	520	Recommended for approval as requested.
RBSCR-16A	-70.6044477	173.019183	950	Recommended for approval as requested.
RSCSR-17A	-70.799113	174.70677	500	Recommended for approval as requested.
EBOCS-08A	-77.242528	172.364	1000	Recommended for approval as requested.
EBOCS-09A	-77.24710754	171.6222151	1300	Recommended for approval as requested.

An additional seismic section was presented to the panel that represented a potential Holocene paleoceanographic site. The question posed was whether or not the panel could approval such a site. This resulted in a discussion on whether the panel should review locations that are outside the scope

plan reviewed by SEP. It was a determined that the overall review process needed to be reexamined by the JRFB.

Proponents will need to submit to the panel new seismic displays for proposed site RSCR-19A with a more reasonable vertical exaggeration for EPSP to reconsider.

Hosts were thanked by the chair for aiding in the delivery of a very successful panel meeting.

Meeting adjourned at 16:40.