MINUTES EPSP Meeting – July 11-13, 2016
Texas A&M University
College Station, TX

Meeting called to order by Barry Katz, EPSP Chair at 8:30. A general review of the agenda and expectations was provided. The manner in which conflict of interest will be dealt with was noted.

Meeting logistics presented by host Mitch Malone: Building logistics and emergency procedures were provided. The group was informed of the evening's social gathering.

Self-introductions were performed by all.

> **EPSP members and alternates present:** David Campin, Earl Doyle, Brandon Dugan, Martin Hovland, Barry Katz (Chairman), Phillippe Lapoint, David Long, Greg Mountain, Donald Potts, Craig Shipp, Haibin Song, Dieter Strack, and Manabu Tanahashi.
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> **Observers, liaisons, and proponents:** James Allan (NSF), Kan Aoika (CDEX), Kara Bogus (JRSO), George Claypool (TAMU Safety Panel), Brad Clement (JRSO), Laura De Santis (Proponent 751), Holly Given (IODP Science Support Office), Karsten Gohl (Proponent 839), Kevin Grigar (JRSO), Kelly Hogan (Proponent 846), Adam Klaus (JRSO), Anthony Koopers (JRFB Chair), Denise Kulhanek (JRSO), Hans Christian Larsen (virtually - Proponent 878), Robert Larter (Proponent 732), Leah LeVay (JRSO), David Mallinson (SEP Co-Chair), Mitch Malone (JRSO), Tim McHargue (TAMU Safety Panel), Kevin Meazell (Observer 887), Steve Midgley (JRSO), Josh Mountjoy (Proponent 841), Ingo Pecher (Proponent 841), Katerina Petronotis (JRSO), Derek Sawyer (Proponent 887), Chris Scholz (Proponent Lake Tanganyika), Angela Slagle (USSSP), Ruediger Stein (Proponent 708), Joann Stock (virtually – Proponent 878), Zhen Sun (Proponent 878), Rupert Sutherland (Proponent 832), Jennifer Totterdell (virtualy – Proponent 897APL), Graham Tulloch (BGS), Nigel Wardell (Proponent 751), Estella Weigelt (Proponent 708), Julia Wellner (Proponent 839), Trevor Williams (Proponent 813), Stacey Worman (Observer 887), Carlos Alvarez Zarikian (JRSO)

JR activities of interest to EPSP were presented by Mitch Malone. Mitch presented the JR drilling schedule thru March 2019. There was a shift from four expeditions to five. This was a result of the inclusion of the CPPs to the drilling program.

Review Proposal 878 - Testing hypotheses for lithosphere thinning during continental breakup: Drilling at the South China Sea rifted margin: Zhen Sun presented the scientific justification and objectives of the proposed program. The four objectives were: 1) establish the nature of basement; 2) examine the time lag between plate rupture and crustal injection; 3) study the kinematics of break-up of the South China Sea; and 4) improve the understanding of regional tectonics and environmental development. This presentation was followed by a discussion of EPSP's previously stated concerns and how they were handled by the proponents. A site-by-site review and discussion followed.

Site	Latitude	Longitude	Depth of Penetration (m)	Remarks
SCSII-1A	18.45472°N	116.13167°E	1589	Recommended for approval as requested.
SCSII-1B	18.44379°N	116.13824°E	1583	Recommended for approval as requested
SCSII-14A	18.40952°N	115.85979°E	1444	Recommended for approval; approval to wash down (without coring) to 650 m; will need to be cored if primary site is not cored
SCSII-11A	18.41089°N	115.88519°E	1496	Recommended for approval; approval to wash down (without coring) to 650 m; will need to be cored if primary site is not cored
SCSII-15A				Rejected
SCSII-16A				Rejected
SCSII-17A	18.46453°N	116.23063°E	1053	Recommended for approval; approval to wash down to 650 m; will need to be cored if primary site is not cored
SCSII-18A	18.45679°N	116.23505°E	1260	Recommended for approval; approval to wash down (without coring) to 620 m; will need to be cored if primary site is not cored
SCSII-8B	18.30518°N	116.21953°E	1698	Recommended for approval as requested; approval to wash down to 350m (5.5 sec TWT)
SCSII-20A				Relocated by panel as SCSII-20B
SCSII-20B	18.29986°N	116.0921°E	1864	Positioned at CDP5600 on line 15ecLW8; approval to wash down to 320m (5.45 sec TWT)
SCSII-21A	18.32794°N	116.31058°E	2054	Recommended for approval as requested; approval to wash down to 340 m (5.5 sec TWT)
SCSII-9B	18.14383°N	116.31410°E	1827	Recommended for approval as requested; approval to wash down to 378 m (5.6 sec TWT; panel preferred as an alternate site)
SCSII-30A	18.13798°N	116.2753°E	1860	Recommended for approval

Site	Latitude	Longitude	Depth of Penetration (m)	Remarks
				as requested; approval to wash down to 381 m (5.6 sec TWT); suggested that this become a primary site
SCSII-31A	18.16994°N	116.39837°N	1874	Recommended for approval as requested; approval to wash down to 342 m (5.6 sec TWT)
SCSII-41A	18.88488°N	115.76571°E	882	Recommended for approval to apparent basement or unconformity plus ten meters (any extension will require approval from shore)
SCSII-40A	18.88382°N	115.74777°E	631	Recommended for approval to apparent basement or unconformity plus ten meters (any extension will require approval from shore)
SCSII-42A	18.87879°N	115.75434°E	763	Recommended for approval Recommended for approval to apparent basement or unconformity plus ten meters (any extension will require approval from shore)
SCSII-43A	18.89011°N	115.87523°E	1416	Rejected
SCSII-3D	18.91761°N	115.85897°E	1352	Recommended for approval Recommended for approval to apparent basement or unconformity plus ten meters (any extension will require approval from shore).
SCSII-44A (U1435)	18.55577667°N	116.61029°E	520	Recommend approval or the reoccupying of the site and drilling to a depth of 520 mbsf

Review Proposal 839 - Development and sensitivity of the West Antarctic Ice Sheet tested from drill records of the Amundsen Sea Embayment: Karsten Gohl and Julia Wellner presented the proposal to the Panel. The study area is a region of significant ice cover and is, therefore, largely lacking stratigraphic information onshore and offshore. An understanding of the stratigraphic record would provide information on climatic and oceanographic changes. Specifically, there are five primary objectives: 1) reconstruction of the glacial history of West Antarctica since the Paleogene; 2) correlation of the WAIS proximal ice sheet records from the Amundsen Sea with global records; 3) examination of

the relationship between water incursions on the stability of the ice sheet; 4) reconstruction of the processes associated with WAIS advances onto the middle and outer shelf, since the middle Miocene; and 5) search for the first the record of the first ice sheet expansion onto the shelf. This was followed by the site-by-site review.

Site	Latitude	Longitude	Depth of Penetration (m)	Remarks
ASRE-01B	70.242°S	103.718°W	950	Recommended for approval as requested
ASRE-02B	70.528°S	102.394°W	950	Recommended for approval as requested
ASRE-03A				Relocated by panel as ASRE-03B
ASRE-03B	69.7737°S	103.2990°W	1400	Positioned at SP1200 on line AWI-20100130
ASRE-04A	70.242°S	105.775°W	900	Recommended for approval as requested
ASRE-05A				Relocated by panel as ASRE-05B
ASRE-05B	70.0793°S	108.6122°W	1200	Positioned at SP4150 on line AWI-20060023
ASRE-06A	70.325°S	114.223°W	1200	Recommended for approval as requested
ASRW-01B				Relocated by Panel as ASWR-01C
ASRW-01C	71.7052°S	120.6681°W	900	Positioned at SP17050 on line AWI-20100117
ASSE-01B				Relocated by Panel as ASSE-01C
ASSE-01C	72.8946°S	107.8143°W	900	Positioned at SP2775 on line AWI-20100134
ASSE-02C	72.848°S	106.347°W	900	Recommended for approval as requested
ASSE-03B	72.582°S	108.002°W	850	Recommended for approval as requested
ASSE-04B	72.558°S	106.448°W	900	Recommended for approval as requested
ASSE-05C	72.149°S	108.436°W	800	Recommended for approval as requested
ASSE-06B	71.893°S	105.552°W	950	Recommended for approval as requested
ASSE-07B	71.287°S	104.750°W	600	Recommended for approval as requested
ASSE-08B				Relocated by Panel as ASSE-08C
ASSE-08C	71.5966°S	113.2551°W	950	Positioned at SP2100 on line AWI-20100139
ASRE-09A	72.910°S	107.307°W	900	Recommended for approval as requested

Site	Latitude	Longitude	Depth of Penetration (m)	Remarks
ASSE-10A	72.572°S	107.267°W	900	Recommended for approval as requested
ASSE-11A	72.022°S	107.588°W	700	Recommended for approval as requested
ASSE-12A	71.332°S	108.365°W	600	Recommended for approval as requested
ASSW-01B	72.993°S	115.792°W	600	Recommended for approval as requested
ASSW-02B	72.817°S	116.583°W	900	Recommended for approval as requested
ASSW-03B	72.502°S	117.972°W	850	Recommended for approval as requested

Review Proposal 813 - Greenhouse to icehouse Antarctic paleoclimate and ice history from George V Land and Adélie Land shelf sediments: Trevor Williams briefly reviewed the scientific objectives of the proposal. The Panel had previously reviewed the proposal. The Panel was asked to review additional sites. The proponents originally requested sites are noted below. As a consequence of the nature of the proposed drilling – limited to 80 meters – and the potential issues that could develop as a result of ice conditions the Panel has recommended approval of drilling within a ribbon 100 meters wide (± 50 meters from the centerline) centered on Line NBP-14202 from shotpoints 1850 to 4700. This is a similar recommendation made at the 2014 EPSP meeting.

Site	Latitude	Longitude	Depth of Penetration (m)	Remarks
GVAL-01B	66.75330°S	145.57758°E	80	
GVAL-02B	66.79061°S	145.50154°E	80	
GVAL-03B	66.87225°S	145.33555°E	80	
GVAL-04B	66.88992°S	145.29893°E	80	
GVAL-05B	66.90775°S	145.26198°E	80	
GVAL-06B	66.91747°S	145.24298°E	80	
GVAL-07B	66.93991°S	145.19657°E	80	
GVAL-08B	66.94996°S	145.17540°E	80	
GVAL-48A	66.76673°S	145.55076°E	80	
GVAL-49A	66.81298°S	145.45648°E	80	
GVAL-50A	66.84020°S	145.40150°E	80	
GVAL-51A	66.87877°S	145.32210°E	80	
GVAL-52A	66.88164°S	145.31657°E	80	
GVAL-53A	66.89937°S	145.27999°E	80	
GVAL-54A	66.94599°S	145.18432°E	80	
GVAL-55A	66.95434°S	145.166188°E	80	

Site	Latitude	Longitude	Depth of Penetration (m)	Remarks
GVAL-09A	66.98382°S	145.10865°E	80	
GVAL-10A	66.99644°S	145.08846°E	80	
GVAL-30A	67.73300°S	146.85000°E	80	
GVAL-31A	66.58894°S	143.35924°E	80	
GVAL-32A	66.59027°S	143.36556°E	80	
GVAL-35A	66.86100°S	144.63940°E	80	
GVAL-36A	66.86544°S	144.65615°E	80	
GVAL-37A	66.87030°S	144.67273°E	80	
GVAL-38A	66.85764°S	144.81591°E	80	
GVAL-39A	66.85935°S	144.80628°E	80	
GVAL-40A	66.86087°S	144.79772°E	80	
GVAL-41A	66.81340°S	144.48011°E	80	
GVAL-42A	66.80577°S	144.48733°E	80	
GVAL-43A	66.71453°S	144.56810°E	80	
GVAL-44A	66.70213°S	144.58519°E	80	
GVAL-45A	66.67110°S	144.62679°E	80	
GVAL-46A	66.64422°S	144.65613°E	80	
GVAL-47A	66.62866°S	144.66952°E	80	

Review Proposal 751 - Ocean-ice sheet interactions and West Antarctic Ice Sheet vulnerability: clues from the Neogene and Quaternary record of the outer Ross Sea continental margin plateau development: The scientific objectives and general safety issues were presented by Laura De Santis. Drilling will aid in tracking of the Circum-Antarctic Current. Specifically, the proposal's major objectives are: 1) assessing the contribution of West Antarctic ice to Neogene sea level; 2) reconstruct high southern latitude paleotemperatures to identify drivers; 3) examine the role of oceanic forcing on WAIS stability; 4) identify the influence of orbital forcing on WAIS configuration; 5) reconstruct the eastern Ross Sea paleobathymetry and its relationship to ice sheet stability; and 6) obtain a complete stratigraphic record. Nigel Wardell then presented the status of the seismic survey used to locate the proposed drill sites. Laura de Santis then presented the site-by-site summary.

Site	Latitude	Longitude	Depth of Penetration (m)	Remarks
EBOCS-01C				Relocated by Panel as EBOCS-01D
EBOCS-01D	75.68392112°S	179.6717893°W	950	Positioned at SP960 on line PD-36
EBOCS-02B	76.0882733527778°S	178.09189997222°W	500	Recommended for approval as

Site	Latitude	Longitude	Depth of Penetration (m)	Remarks
				requested
EBOCS-03B				Relocated by Panel as EBOCS-03C
EBOCS-03C	76.5537958°S	174.75793608°W	545	Positioned at SP300 on line l06290-Y2A
EBOCS-04B	76.1765109583333°S	172.883982977778°W	520	Recommended for approval as requested
EBOCS-05A	75.5498555638864°S	179.205987458374°E	700	Recommended for approval as requested
EBOCS-06A	75.9144821972222°S	175.3495817°W	700	Recommended for approval as requested
EBOCS-07B				Relocated by Panel as EBOCS-07C
EBOCS-07C	76.19502168°S	173.70576347°W	750	Positioned at SP3500 on line l06290-Y-7B

Meeting recessed at 17:00

Meeting reconvened at 8:30 on July 12th.

Site	Latitude	Longitude	Depth of Penetration (m)	Remarks
RSCR-01B	75.2465988944006°S	175.00582308257°W	1000	Recommended for approval as requested
RSCR-02B	74.5059184444211°S	172.85451913905°W	1000	Recommended for approval as requested
RSCR-03A	75.0009986388656°S	173.920116730618°W	800	Recommended for approval as requested
RSCR-08C	73.3692779888889°S	178.917743436111°E	1000	Recommended for approval as requested
RSCR-09A				Rejected

Site	Latitude	Longitude	Depth of Penetration (m)	Remarks
RSCR-10A	74.2173888888586°S	173.633722222356°W	1000	Recommended for approval as requested
RSCR-11A	71.8460272138889°S	175.679039766667°W	500	Recommended for approval as requested
RSCR-12B	71.8512252777778°S	178.163710833333°E	650	Deepened from original request to accommodate logging tool

Review Proposal 841-APL2 - Creeping gas hydrate slides: Slow deformation of submarine landslides on the Hikurangi Margin: Ingo Pecher provided the panel with a summary of the scientific objectives of the proposed program. The program was developed to determine whether slow movement along the slope can be linked to the presence of hydrate occurrence and gas hydrate dissociation at BGHS, hydrofacturing across the BGHS, or the system behaving as a "sediment-hydrate glacier". The program was designed so that the antitheses could also be tested.

Site	Latitude	Longitude	Depth of Penetration (m)	Remarks
TLC-03B	38.826701°S	178.503063°E	165	Recommended for approval as requested with only LWD drilling
TLC-02C	38.792582°S	178.447475°E	135	Recommended for approval as requested with only LWD drilling
TLC-04B	38.829533°S	178.475950°E	205	Recommended for approval with coring down to 190mbsf and LWD to 205 m; coring should offset down-dip of the LWD primary hole
TLC-01C				Relocated by Panel as TLC-01D
TLC-01D	38.819567°S	178.464117°E	155	Positioned at crossline 4685 inline 1926; recommend for LWD and coring
TLC-05B				Relocated by Panel as TLC-05C
TLC-05C	38.824303°S	178.463040°E	135	Positioned at crossline 4545 inline 2024; recommend for LWD and coring
TLC-06B	38.793123°S	178.448984°E	135	Recommended for approval as requested with only LWD

Site	Latitude	Longitude	Depth of Penetration (m)	Remarks
TLC-07B	38.775106°S	178.452262°E	155	Recommended for approval with only LWD
TLC-08A				Rejected
TLC-09A	38.851026°S	178.465965°E	195	Recommended for approval with only LWD

Note: Pressure monitoring would be required during drilling.

Review Proposal 832 – Subduction initiation and Paleogene climate (SIPC) in the Tasman Frontier: Rupert Sutherland presented the scientific objectives of the proposal which are to understand subduction zone initiation and the acquisition of a sedimentary record that will permit an examination of climate change associated with changes in plate movement direction. A site-by-site review followed.

Site	Latitude	Longitude	Depth of Penetration (m)	Remarks
TASS-2A	37.561097°S	160.31561°E	960	Recommended for approval as requested to basement
TASS-5A	37.442183°S	160.540186°E	1020	Recommended for approval as requested to basement
LHRS-3A	36.328973°S	164.558677°E	620	Recommended for approval to a depth of 620 m
LHRS-2A	36.339602°S	164.604271°E	735	Recommended for approval to a depth of 735 m
LHRN-3A	28.661971°S	161.740721°E	320	Recommended for approval as requested
NCTN-8A	26.488587°S	166.528365°E	700	Recommended for approval as requested
NCTN-7A	26.293248°S	166.549699°E	880	Recommended for approval as requested
NCTN-6A	26.375984°S	166.557793°E	860	Recommended for approval as requested
NCTS-2A	34.652186°S	165.827652°E	610	Recommend for approval as requested
NCTS-3A	34.711508°S	165.872625°E	600	Recommended for approval as requested
REIS-1A	34.452753°S	171.337573°E	1000	Recommended for approval as requested
REIS-2A	34.4453516°S	171.3467652°E	900	Positioned at SP8400 on line RE109-012-4060_nz; For operational reasons the hole may be placed up to 500 m

Site	Latitude	Longitude	Depth of Penetration (m)	Remarks
				down-dip from the assigned position.

Review Proposal 732 - Sediment drifts off the Antarctic Peninsula and West Antarctica: Robert Larter presented a scientific overview of the proposal. The program was designed to obtain a high-resolution stratigraphic record from the Pliocene thru the Quaternary. This sedimentary record will provide information on the response of the Antarctic Peninsula and West Antarctica to climate change, contributing to an improved understanding of the role of the WAIS (West Antarctic Ice Sheet) and APIS (Antarctic Peninsula Ice Sheet) and the Southern Ocean in atmospheric and oceanographic processes. A site-by-site review followed.

Site	Latitude	Longitude	Depth of Penetration (m)	Remarks
PEN-1B	64°54.036'S	69°2.804'W	450	Recommended for approval to revised depth
PEN-2C	66°17.6763'S	71°57.2054'W	450	Recommended for approval to revised depth
PEN-3C	67°40.2405'S	74°38.7197'W	450	Recommended for approval to revised depth
PEN-4B	67°51.86'S	76°10.76'W	450	Recommended for approval to revised depth
PEN-5D	67°39.2734'S	77°13.8435'W	550	Recommended for approval to revised depth
BELS-1	68°56.57'S	85°47.36'W	450	Recommended for approval to revised depth
BELS-2C	69°31.85'S	93°57.38'W	450	Recommended for approval to revised depth
BELS-3B	69°31.74'S	94°33.66'W	600	Recommended for approval as requested
PEN-6	64°22.3315'S	70°15.6706'W	350	Recommended for approval as requested
PEN-7	67°34.0091'S	76°57.8119'W	608	Recommended for approval to revised depth
BELS-4	69°2.0389'S	85°41.2331'W	450	Recommended for approval to revised depth

Review Proposal 846 - Multi-proxy intermediate water depth records from the Subantarctic SW Atlantic: Falkland Plateau Kelly Hogan presented the APL to the Panel. The plan is to recover a high resolution stratigraphic capable of providing information on the millennial timescale. Specifically, the program was developed to gain a clearer understanding of the export rates for AAIW into the South

Atlantic. In addition, the recovered material should provide an understanding of the SW Atlantic export productivity stimulated by iron-bearing dust and changes in the geochemical signature of the AAIW. A site-by-site review followed.

Site	Latitude	Longitude	Depth of Penetration (m)	Remarks
SFSDp-02A	53.1915°S	58.6434°W	350	Recommended for approval to revised depth
SFSDa-02A	53.1955°S	58.3608 °W	150	Recommended for approval as requested
SFSDp-03A	53.1896°S	58.7608 °W	350	Recommended for approval to revised depth
SFSDa-03A	53.1897°S	58.7511 °W	350	Recommended for approval to revised depth

Review Proposal 865 Full - Nankai microbial temperature limit: Kan Aoike presented an overview of the objective and drilling plan. In brief, the program is to test the upper temperature limit for life below the mudline. It is believe that improvements to cell detection will advance the current depth limit. The program was developed to permit penetration of the biotic-abiotic transition and to determine the characteristics of fluid that may support these microbial communities. A site review followed.

Site	Latitude	Longitude	Depth of Penetration (m)	Remarks
ODP11-74B	32°22.0095'N	134°57.9930'E	1290	An oval extending ±100 m on the crossline and ±50 m on the inline from the proposed location is recommended for approval

Review of Proposal 897 APL – Cenomanian OAE2 black shales in the Southern Ocean – An expression of global anoxia at high southern latitudes: Jennifer Toterdell introduced the panel to the proposed program. The primary aim of the proposal is the acquisition of a continuous record thru OAE2 (Cenomanian-Turonian) in the Great Australian Bight. These sediments would aid in filling a gap that currently exits at high southern latitudes. A site review followed.

Site	Latitude	Longitude	Depth of Penetration (m)	Remarks
WCED-4A	34.027345°S	127.962673°E	570	Recommended for approval as requested

Review additional alternate sites – Expedition 362 - The Sumatra Subduction Zone: The role of input materials in shallow seismogenic slip and forearc plateau development. Brandon Dugan reported the need for additional sites for Expedition 362 as a result of the problems associated with obtaining drilling clearance. Two sites were presented.

Site	Latitude	Longitude	Depth of Penetration (m)	Remarks
SUMA-23A	0°47.82467'N	92°27.72283'E	1375	Recommended to basement + 10 meters; the depth estimate includes a 10% error
SUMA-24A	0°38.302164'N	92°25.984998'E	860	Recommended to basement + 25 meters; the depth estimate includes a 10% error

Meeting recessed at 17:10

Meeting reconvened at 8:30 on July 13th.

Review Proposal 708 – Arctic Ocean paleoceanography: Towards a continuous Cenozoic record from a greenhouse to an icehouse world (ACEX2): Ruediger Stein presented an overview of the program. It was noted that the Arctic is very sensitive to climate change, with these changes being reflected in changes in sea ice and surface albedo. An understanding of Arctic conditions through time is, therefore, a key to understanding the Earth's climate history. There are, however, major gaps in the stratigraphic record. The aim of this drilling program is to fill the gaps in the stratigraphic record. Specific objectives are: 1) establishing the history of Arctic ice sheets and sea ice; 2) establishing the history of Arctic bottom and surface waters; 3) determining the history of Arctic river discharge; 4) developing a high resolution understanding of the Pliocene Arctic record; and 5) gaining an understanding of the ACEX hiatus between late Eocene and early Miocene. A site-by-site review followed.

Site	Latitude	Longitude	Depth of Penetration (m)	Remarks
LR-01A	80.9502°N	142.9717°E		Panel has recommended approval to a depth equivalent to the stated drill string of 2000 m along line AWI-20140307 between CDP 600-750 and 1150-1250
LR-02A	80.965°N	142.4717°E		Panel has recommended approval to a depth equivalent to the stated drill string of 2000 m along line AWI-20140304 between CDP 2240-2480
LORI-16A	80.7766°N	142.7816°E		Panel has recommended

Site	Latitude	Longitude	Depth of Penetration (m)	Remarks
				approval to a depth equivalent to the stated drill string of 2000 m along line AWI-98597 between CDP 1000-1500
LR-03A	81.1825°N	142.0918°E	1180	Panel has recommended approval to a depth equivalent to the stated drill string of 2000 m along AWI-20140310 between CDP 550-650
LR-04A	81.2592°N	141.2563°E	1020	Recommended for approval as requested
LR-05A	81.3365°N	141.3740°E	1150	Panel has recommended approval to a depth equivalent to the stated drill string of 2000 m along line AWI-20140305 between CDP 750-900
LR-06A	81.4568°N	140.7299°E	970	Recommended for approval as requested
LR-07A	81.6851°N	142.3074°E	850	Recommended for approval to revised depth
LR-08A	82.4215°N	142.1678°E		Recommended for approval to the stated 2000 m drill string limit.
LR-09A	82.8274°N	142.4677°E	750	Recommended for approval as requested
LORI-5B	83.8005°N	146.475°E		Recommended for approval to the stated 2000 m drill string limit.

Preview Lake Tanganyika Drilling: Chris Scholz presented an overview of the proposed Lake Tanganyika drilling program. He noted the complexities of scientific deep lake drilling and how that unlike ocean drilling the drilling vessel is essentially assembled locally through the modification of available ships. There are cross-disciplinary interests in the drilling results including climate, tectonics, and evolution. A site-by-site review followed. However, the Panel did not recommend approval but provided both general and site specific guidance for planning purposes.

Site	Latitude	Longitude	Depth of Penetration (m)	Remarks
BST12-01	6.714301309°S	29.86160842°E	851	Panel suggests that there could be over-pressure. The

Site	Latitude	Longitude	Depth of Penetration (m)	Remarks
				velocity structure needs to be evaluated. Current position appears to include possible sand lenses.
BST12-41	8.452703229°S	30.99978223°E	924	Panel raises concerns about amplitude events between 0.6 and 0.9 sec TWT. Processing has most probably focused on the deep structure. Reprocessing is required.
BST12-38	8.363797802°S	30.86580542°E	1131	Panel identified possible shallow discontinuous sands that could result in operational issues.
BST12-36	8.211512281°S	30.90559857°E	657	Panel suggests considering the relocation of the site about 100 m west.
BST12-33	8.11248605°S	30.75816095°E	1386	Panel identifies the presence of possible overpressure. There is also a risk of fluid flow along a fault near to the proposed drill site.
BST12-87_SP1132	7.9624671°S	30.73971864°E	1309	Panel expresses some concern about the structural position. Panel would need to check cross-line.
BST12-87_SP1544	7.999288007°S	30.67965566°E	737	Panel suggests that there are no structural limitations at the proposed site, but

Site	Latitude	Longitude	Depth of Penetration (m)	Remarks
				as with the other sites a clearer understanding of the stratigraphy gained through reprocessing would aid in assessing the site.
BST12-85_SP1405	7.959886576°S	30.66085265°E	982	Panel suggests that positioning of the site in risk-free location could be an issue.
BST12-10	7.001963181°S	30.30484741°E	765	Panel suggests that shallow amplitude events need to be carefully examined.

The Panel recommends that there is a need for more alternate sites, noting the potential for shallow biogenic gas and the possible presence of over-pressure. Many of the sites need to be better characterized and the seismic data should be reprocessed. It was further recommended that the processing sacrifice part of the deep record in order to obtain higher resolution in the shallow portion of the section so that possible shallow gas can be avoided. Additional data, including crossing lines, would permit better characterization of the proposed drill sites. It was also suggested that the proponents should review the Lake Malawi drilling program to determine whether there was any flowing sand issues. The panel believes that if properly located drilling could be conducted without a riser.

The Chair expressed thanks to the TAMU staff for the excellent hosting of the Panel meeting.

The majority of the attendees were thanked for their participation and asked to leave.

Those remaining in the meeting all had signed the necessary non-disclosure agreements permitting them to view the data supporting Proposal 887. The chair and Holly Given confirmed that those remaining had signed the agreements.

Review Proposal 887-CPP2 – Gulf of Mexico Methane Hydrate: Derek Sawyer presented the scientific objectives of the proposed program. The overall objective is to gain an understanding of methane migration mechanisms in coarse-grained gas hydrate systems. Specific aspects of the program will address: 1) the relative importance of in situ microbial methanogenesis; 2) the response of coarse-

grained hydrate reservoirs to changing temperature/pressure conditions; and 3) the acquisition of physical property data that can be used for modeling studies. A site-by-site review followed. After the initiation of the site-by-site review began there was a brief recess where the EPSP chair, operator representative, representative of NSF, and JRFB chair discussed a potential go-forward plan. It was determined that the site review would be considered a preview and that the panel would provide guidance on 1) whether a proposed site or an alternate near-by repositioned site would have the potential to move forward in the drilling program or 2) whether there were clear issues that will require that a site's position be optimized or relocated because and that it was highly unlikely that a proposed site could be approved in close proximity to the proposed location.

Site	Latitude	Longitude	Depth of Penetration (m)	Remarks
TBONE-01A	26.6627°N	91.6761°W	1035	Panel believes that upon final review this or a near-by location will be able to be approved.
TBONE-02A	26.6604°N	91.6742°W	850	Panel recommends relocating this site to provide additional clearance from possible channel system
TBONE-03A	26.6635°N	91.6839°W	1091	Panel believes that upon final review this or a near-by location will be able to be approved.
TBONE-04A	26.6595°N	91.6737°W	1001	Panel recommends relocating this site to provide additional clearance from possible channel system
TBONE-05A	26.6578°N	91.6717°W	923	Panel believes that upon final review this or a near-by location will be able to be approved.
TBONE-06A	26.6474°N	91.6935°W	1262	Panel believes that upon final review this or a near-by location will be able to be approved.
TBONE-07A	26.6438°N	91.6913°W	877	Panel believes that

Site	Latitude	Longitude	Depth of Penetration (m)	Remarks
				upon final review this or a near-by location will be able to be approved.
ORCAB-05A	26.8565°N	91.3361°W	609	Panel recommends that position be optimized away from the possible channel.
ORCAB-06A	26.85775°N	91.3333°W	546	Panel requests that the stratigraphy be clarified or that it be relocated away from the apparent mass flow event at about 2.2 sec TWT
ORCAB-07A	26.8542°N	91.3262°W	584	New site requested by SEP
ORCAB-08A	26.8412°N	91.3342°W	697	Panel requests relocation or that a better image be provided of the faulting.
ORCAB-09A	26.8408°N	91.3355°W	716	Panel requests that the site be relocated away from faulting
ORCAB-10A	26.8431°N	91.3329°W	639	New site requested by SEP
ORCAB-03A	26.8555°N	91.3312°W	569	Panel believes that the location of the site will need to be optimized to avoid faulting
ORCAB-04A	26.8518°N	91.3353°W	751	Panel believes that the location of the site will need to be optimized to avoid faulting
MADOG-01A	27.1714°N	90.3366°W	676	Panel recommends that entirely new program be developed for Mad Dog

Site	Latitude	Longitude	Depth of Penetration (m)	Remarks
MADOG-02A	27.1676°N	90.3333°W	489	Panel recommends that entirely new program be developed for Mad Dog
MADOG-03A	27.1716°N	90.3275°W	480	Panel recommends that entirely new program be developed for Mad Dog
MADOG-04A	27.1742°N	90.3284°W	594	Panel recommends that entirely new program be developed for Mad Dog

As previously noted the panel will require another detailed review. It is recommended that the data be reprocessed to capture higher frequency. There will be need for a live data presentation in order to facilitate discussion on repositioning, if necessary. The lead proponent must be present during the review. The review of this program will be the first item in next year's meeting agenda. A copy of Hovland et al. (1999) "Strategy for scientific drilling will be included in the meeting file folder.

Craig Shipp has volunteered to re-examine the guidelines for EPSP presentations. It was noted that there has been considerable improvement over time, but there remain issues as to how some of the seismic data are presented. Specifically, there is a need for both regional and site specific data.

Next year's EPSP meeting's tentative date is September 2017 in College Station, TX.

Meeting adjourned at 16:15