

GCOOS Board Meeting Minutes: 2020

SPRING 2020: 2 April 2020 (Virtual Meeting)

Participants: Board: Steve Buschang, Alyssa Dausman, Dave Driver, Sara Graves, Pat Hogan, Stephan Howden, Kirsten Larsen, Mike Lee, Bill Lingsch, Ruth Perry, Nancy Rabalais, Nick Shay, Joe Swaykos, Jan van Smirren, Nan Walker; Staff: Barb Kirkpatrick, Chris Simoniello, Jen Vreeland-Dawson

Absent: Renee Collini

Barb provided the Director's update following roll call and a brief welcome by Joe. On paper, the budget is \$3.3M but we did not actually receive that amount; there was \$600K to host a NCCOS funding opportunity (nine proposals with topics ranging from fisheries to tourism to health were received for this HAB Socioeconomic RFP). The bulk of funds goes to Local Data Nodes—16 PIs funded. There were also special awards in Year 4 (e.g., fill the gaps (gliders, HFR and ADCP); Glider/CENOTE coordinator; MBON early warning tool (USF) and MBON FL Keys product (Bob Currier); NOAA RCT video project (Simoniello), OTT Biology product; and GCAN coordination (Vreeland-Dawson). Other projects include GRIIDC, NAS LCS, Stones-DM and OE, NDBC/BSEE and making BOEM meteorological and air quality data sets publicly available.

Year 4 Highlights:

- The need for a US glider coordinator was recognized in May at the International glider workshop at Rutgers. Bill Lingsch was subsequently hired.
- GCOOS was a sponsor of the June GOMA All Hands meeting in AL and participated in the Tools Café.
- At the IOOS RA Directors meeting in July there was discussion about narrowing the RA funding gap. Funding ranges from about \$1.3 to 2.8M, with GCOOS one of the three lowest funded RAs. Barb and Sara also talked with Carl RE the GCOOS/SECOORA footprint.
- Nicole LeBoeuf and Tim Gallaudet attended the HFR installation ribbon-cutting event.
- Leila Belabbassi joined GCOOS in August 2019.
- Barb and Leila attended the September Ocean Obs 19 meeting in HI; Barb and Jan attended the October NSF/TAMU N2N meeting in Mexico. There was an interesting mix of disciplines (e.g., weather service and medical community) in attendance. They also attended the GRP Loop Current System meeting in Washington DC. Hill visits were made by Barb and Sara in March 2020, coinciding with the IOOS Directors Meeting.

- The October 2019 Board meeting in Galveston led to invited speaker Antonietta Quigg, TAMU-Galveston, becoming a member of the GCOOS Board. Hosting meetings at different venues is beneficial for reasons like this.
- The GCOOS OEC met in November to begin development of NOAA RCT-funded videos.
- In November, the Board submitted a formal letter to Carl RE SECOORA's overlap with GCOOS.
- The GCOOS semi-annual report submitted in December was accepted by IOOS. There was an IOOS grant management division review at TAMU that went well—they seemed appreciative of having university backing for large grants.
- Barb, Chris, Grant, Jen and Nadine met to plan the ATB launch. The plan was to launch this summer to coincide with high beach traffic but is on hold pending COVID 19.
- Grant completed the annual member contact update prior to the GCOOS elections.

Communications: The GCOOS e-newsletter has 687 subscribers, about a one-third increase since launching the new website. There is a 35% open rate, higher than the industry average. There has also been an increased presence on social media, with responsibilities shared by Nadine, Jen, Grant and Chris.

GCOOS OE: Activities included funding Ally Savoie, USM, as the first recipient of the Matt Howard scholarship. She presented at the 2019 Ocean Sciences Meeting. Also honoring Matt was the official naming of Howard Trough in Flower Garden Banks National Marine Sanctuary, coordinated by Chris. More than 200 images were received for the All Things Beaches photo contest. GCOOS has ongoing GOMA collaborations and leadership roles with the Education and Engagement Priority Issue Team, Embrace the Gulf campaign, and Paddle the Gulf, including establishing a partnership with the Guy Harvey Foundation for event sponsorship. Work on the NOAA RCT video project is underway; four GCOOS episodes for TAMU's On the Ocean podcast series aired; GCAN network-building efforts continue. A recent workshop for OA scientists and shellfishers to be held at Mote Marine Laboratory had to be conducted as a virtual meeting because of COVID 19.

Proposals: GCOOS led five large efforts--OA, HABS, OTT and BOEM. We were collaborators on nine (i.e., some funding for GCOOS included) and wrote Letters of Support for 10 others.

Challenges for 2020-2021:

- The next IOOS FFO will be in mid-April or May. There will be a minimum of six months from the release date to submit. GCOOS will use the mini-proposal format as in past years. We need to discuss a stakeholder engagement plan (next agenda item). SECOORA already sent out a call for proposals; GCOOS will wait to see the FFO.
- Leila resigned March 27, 2020, to pursue other career options. Bob and Felimon will share DMAC manager duties in the interim. Felimon is the acting IOOS POC.
- GCOOS is taking over the CO-OPS HAB GoMeX Bulletin—they want out of the bulletin business. NCCOS and IOOS management are talking about transferring the forecasts to the RAS. GCOOS would be the first—the goal is to transition in October 2020, in parallel with CO-OPS, then take over operations in October 2021. Bob C would lead for GCOOS and thinks he can automate. The system would be pseudo-operational—not 24/7 but on a consistent schedule. NCCOS and IOOS are discussing funding sources.

Strategic Plan

The new Strategic Plan was sent to Board members. Send content edits to Bill Lingsch by April
10. Send grammatical/formatting corrections to Nadine. Nancy thinks hard copies are useful and
suggested a one-page summary of the document for Hill visits. Stephan said the metrics for
success in the SP set us up for failure. The cost of doing some of the actions is too expensive. We
should set the bar at a practical level. The goals are good but the metrics for success require a
large infusion of money. Maybe change to benchmarks. The GRP SP does not include metrics.

The current plan for the Fall Board meeting is to be in NOLA Sept 30-Oct 2, 2020. The meeting will be at the Double Tree and follow the half-day, whole-day, half-day format.

Barb informed the group that SECOORA sent a letter to Carl in response to the GCOOS letter. She has not seen it nor have any of the Board members. The next step is pending Carl's direction.

Questions/Comments

- Bill commented that the SECOORA letter should be shared with GCOOS. It is likely Carl is just behind on email.
- Joe commented about Leila and the next DMAC director. Dialogue is needed to emphasize the desire for someone with a PhD in oceanography and to articulate a process for how to move forward. Derrick wanted to know what we have in mind as far as a job description. Discussion on what is best to reach consensus is needed. Stephan suggested considering someone who has a strong oceanography background, deep in data skills, and rely on Felimon and Bob for DM. Nancy recommended the Board work with Barb to draft a job description. Barb will send the job description previously used for Leila (40% time to manage the DM team).
- Stephan reminded the group that the Bonnet Carre spillway was opening this week and that Gulf SST is higher than normal heading into hurricane season. The COVID 19 pandemic has made it tough to get gliders in the water to measure heat content. Is there anything that can be done? Barb said there is a mini proposal opportunity through the Climate Program Office (OAMO). There was to be a glider-focused meeting in Miami next week to prepare for hurricane season but it has been postponed---possibly in May.

Stakeholder Engagement: Chris presented to the group on developing a strategy for stakeholder engagement. The goal is to solicit input by Board members on priority elements of the Strategic Plan. A process is needed to promote the use of current GCOOS products by existing and new stakeholders, and to identify community members who can help inform development of new and emerging data products. Previously, she and Barb spoke with Heidi Stiller about NOAA Office for Coastal Management stakeholder engagement resources. Several approaches were to be used at the in-person Board meeting. Because the meeting had to be held virtually, an alternate plan is being devised to solicit input that will guide the Stakeholder Engagement section of the next GCOOS five-year IOOS proposal.

Recognizing the time constraints of Board members, GCOOS staff will test strategies for acquiring input on products and stakeholders. One idea is to follow the approach of the SP; each focus area team can identify products and stakeholders for that SP element. Each group would then share their priority lists with the other focus area teams to comment and add content. An alternate idea is to use the slides Chris created for each Focus area as a starting point. Board members can edit each of the four slides, adding additional products and /or stakeholders, and ranking their (top 3-5) priorities for both products and stakeholders. Barb and Chris will discuss and provide options for the Board on how best to proceed.



GCOOS Board Meeting Minutes: 2020

FALL 2020: 30 September and 1 November 2020 (Virtual Meeting)

30 September 2020 (open)

Sara Graves: GCOOS Board Chair welcomed participants, did roll call, welcomed new board members and announced the executive committee members.

Participants: 77 participants joined the open parties meeting including Board members Steve Buschang, Renee Collini, Dave Driver, Sara Graves, Pat Hogan, Stephan Howden, Kirsten Larsen, Bill Lingsch, Ruth Perry, Antonietta Quigg, Nick Shay, Joe Swaykos, Jan van Smirren, Nan Walker and Staff: Bob Currier, Felimon Gayanilo, Barb Kirkpatrick, Chris Simoniello, Jen Vreeland

Alyssa Dausman and Kim Yates were unable to attend.

Sara handed off the Board Chair position to Joe Swaykos. Founding GCOOS member Nancy Rabalais is stepping down and Ed Kearns is rotating off the board. Both were thanked for their time. New board members Kim Yates, USGS, and Antonietta Quigg, TAMU-Galveston, were welcomed. The new Executive Committee is: Joe, Chair GCOOS Board; Steve, Chair Elect; Kirsten, Secretary; Jan, Treasurer; and Sara, Past Chair.

Thanks were also extended to Bill Lingsch who rotated off the EXCOMM as past chair. He will be continuing in a new capacity as the national glider coordinator. He played a critical role in leading Strategic Plan efforts over the past few years.

Joe Swaykos: The gavel was officially passed to Joe who convened the meeting from this point and asked for a motion to adopt the agenda. The motion was made by Sara and second by Bill. All were in favor. Joe provided a brief background on his 15 yr experience with GCOOS since his first meeting in Ocean Springs as part of the Outreach and Education Council. He praised Nancy's important work that dates back to Arlie House and Dave Martin—not just GCOOS but IOOS as a whole.

Barb Kirkpatrick provided the Executive Director's report. She thanked the data providers who have had a difficult task amidst many storms and the pandemic; GCOOS wrote the RA proposal for \$4M/yr and received \$3.3M this year; 20% budget RA, 34% special projects, 46% observations; PIs 5 TX, 3 LA, 1 MS, 1 AL, 6 FL. The special awards budget included gliders, HFRs, ADCPs, funds for a Glider/CENOTE coordinator, CETACEAN project (RESTORE money),

HABscope, OTT Biology project (funded in Matt's name by IOOS PO), and GCAN coordination (\$20K). There are also many non-IOOS funded projects; e.g., GRIIDC, MBON, Stones, NTL ADCP data, BOEM metadata, Nutrients sensor pilot (U LA Lafayette). HABscope image analysis software started as a NASA grant, now IOOS and NOAA are funding; will transition to sustained HAB forecast by GCOOS over next 3 yrs; will replace current HAB bulletin;

Next IOOS proposal is due Dec 31st; two funding tiers--\$3M and \$6M. Thanks were extended to reviewers who selected 25 LOIs for the \$3M tier; four additional were added for the \$6M level; Subaward documents are needed by November 13, 2020.

GCOOS DM—Leila stepped down soon after hired; Effective today Bob Currier and Felimon Gayanilo will co-lead the GCOOS DM team. Kerri Whilden, TAMU GERG, is joining part time to help, especially with GANDALF. We currently have ~1600 sensors operating. Communication update: we have 190 new subscribers and 35% open rate; FB posts continue to grow. Outreach and Education: we are working with GOMA, especially on the Embrace the Gulf campaign, Paddle the Gulf, NOAA Regional Collaboration Team -funded New Normal video project, and projects where external funding have been secured. We are making progress with MBON getting data into ERDDAP; GCAN work is focused on proposal collaborations, State of OA Science in GoM report, building the OA website and building structure with the committees. The next GCOOS Board Meeting will be April 14-16 in NOLA if we are able to travel.

Discussion: Joe congratulated the team for the incredible progress and range of projects given the small staff size. There was discussion about how the group might help colleagues in MS/AL impacted by Hurricane Sally. DISL was especially hard hit-Brian Dzwonkowski and Lei Hu impacted. Sara said Orange Beach and Gulf Shores sustained a lot of damage; beaches are just now reopening. Three stations are back reporting data (Bon Secour, Meaher Park and Middle Bay Light). Lei said these stations were reporting real-time data during the storm. Four other stations are down. Stephan said Codar station suffered damage; working on getting it up & running.

Panel Presentations

Jan van Smirren, National Academies GRP Data Compilation Project —For the GulfHub project, RPS, Fugro, and Woods Hole Grp are partners; collectively acquired 5-10X more data than all other data collected by oil & gas operators; RPS working on ERDAPP services, Woods Hole Grp post-processing 2010-2019 NTL data to bring to IOOS standards so can be used scientifically, Fugro data from RPSEA and ADCP, Ocean Sierra—helping with project management and data discovery; ingested 3 data sets by Fugro, (deepwater, near-bed data set—characterize Rossby waves near Sigsbee Escarpment and near-bed currents); previously proprietary data; NTL data-public data set but data not operational—needs to be cleaned before can be used for science; primarily Teledyne ADCPs off rigs deeper than 500m in GoM –currents thru top 1000 m water column; Mobile platforms move so variable time series vs fixed platforms; vessel mounted ADCP data also collected; 2292 transects now on ERDAPP server; help users determine value of data sets relative to SSH and determine if data of interest to them; looking at frontal eddies on loop current; example from 2007—can also see deep water Macondo affect—rigs turned off ADCP as moved offsite; allow user to make quantitative assessment of value of data in ERDAPP; most data pre-2010; other UGOS recipients working on more recent data; can use our data to validate their models; allow researchers to improve understanding of formation and propagation of Rossby waves. Source of info for value-added products by industry? Existing data pipeline—after two years, we likely have received only 50% of existing proprietary data; Deepstar and Fugro are major data providers.

Kelly Knee RPS North America, Director Ocean Sciences: late 90's started building more around data management b/c couldn't access/readily find info needed for their numerical modeling; supported NOAA in DWH NRDA process; deepwater port support; looking ahead—offshore wind, open data sharing, shout out to Shell for sharing Lidar data with MARACOOS and NERACOOS; RAs, Regional Ocean Councils-how best to collaborate? Need reason and way to incentivize collaboration; leveraging idle assets—sitting on shelf not providing value—deploy at own cost and sell data? How can they repurpose to provide service to community? DM—if data not searchable, usable, not very valuable. 5-10% of budget should be to make sure data used; OE, marketing really important, forums, social media—need to demonstrate how data can be used; also need to measure how data being used; for data turned into products, need a chain of development to show being used; Role of RPS in helping define standards for UGOS data; make sure community knows what data sets are available and their value.

Jan commented that Kelly spent 2 min talking about IOOS data standards that really took about 6 months to determine! There is concern that if this is not done properly, once people retire the information will be gone forever.

Bill Lingsch stated, "You are right Kelly. Collect data not dust! We need to know the inventory that is sitting on shelves and have a plan to deploy them."

Ben Williams Fugro: Dutch multi-national company since 1962; Key markets & services –decline in oil & gas so running at about 35%; other areas picking up, especially renewables; John Chance part of Fugro—offshore positioning for offshore oil & gas; about 9,000 geotechnical site investigations in US & Mexico; Shell Stones and NASEM—contracted through 2025; NASEM Oct 2021 contract ends; closing the data gap along LA coast project; help bridge gaps between USM and TX radars; moorings—continue servicing on 6 mos cycle; happy to help with glider/drifter deployments, recoveries—reach out to Ben; happy to support NTL data being brought into GCOOS.

Rafael Ramos, Woods Hole Group—spinoff WHOI, CLS French investors recently took over; 720 employees around the world-headquartered in Toulouse (a subsidiary of the French space agency); QA/QC NTL data main role in project; acoustic interference problems with data; screening mechanisms for quality of data questionable; reviewing all these issues; verify position of rig using 3-4 independent location data; rig zone metadata, BSSEE bore hole—

sometimes differences up to 5 km!; critical to document data accurately; ~80% NTL data with location errors; 50% of records contain gaps—3-4 different intervals for same deployment ; data lost to telemetry-about 6% data; about 15% data issues that could not be verified or corrected; operator issues and errors on top of this also invalidate about 40% of data!; need to enhance collaboration with Mexico, Cuba, Caribbean, Ben observatory with Fugro should be enhanced and applied elsewhere; need to spread word on what data we have—easy access, visualization and download capabilities; develop demonstration products—show what can be done—ability to create alarms when a system above certain limit—e.g., currents for port operators; need to assimilate other data-pertinent to ocean phenomena—e.g. river discharge would be nice addition to data we currently display—make this go to site for data gathering in GoM; WMO forum last week—reminded of richness of data collection in GoM. Commented that it was interesting to see that of the many presentations on uncertainty, not a single one had the same definition! Concerning—all the more reason for standards!

Chris commented that GCOOS has an ace on our OEC with Rob Smith-Woods Hole Group representative. How can we best work with Rob and help communicate the value of these data? Joe on WMO metadata standards team for 5 yrs while at NDBC—can't overstate the importance of this.

Laura Bowie: Update on the Gulf of Mexico Alliance where she has been the director since 2013; In the process of updating strategic plan; EtG 365 messages (but 366 days in 2020 b/c of Leap year); Did-you-know fact-based messages about GoM; many anniversaries—hurricanes, oil spill—wanted positive thoughts about Gulf. Shout out to City of St. Pete—first city to sign EtG Proclamation; GoM Open Data Platform-populated with seagrass data sets as proof of concept; GOMOD platform channel to let folks know—presentation in progress during Board meeting; framework in ESRI Hub—license needed; first ID data sets out there; second—make human and electronic connection—GOMA is not holding data; making machine to machine connection with people who own data; other data sets of interest--benthic data layers, mangroves, oysters; NatureServe and ESRI are partners, GCOOS on advisory panel, funded by GulfStar-NOAA, Shell; leverage federal & private funding; Financial impacts of HABs in FL group—GOMA and Balmour group; plan to update and enter into contract to do same type of analysis for 2019 HAB event in MS; NGSAAP project—GIS sediment availability support tool; info on sediment resources for restoration of coastal habitat—shows where gaps in info needed, types and quality of sediment in different areas inventory for 5 states—working with Water Institute of the Gulf; take from desktop version to online version; not yet available online.

Bill Lingsch, U.S. Glider User Group Coordinator provided a Gulf Glider Update — UG2 and the Glider Hurricane Picket line. The group now has a steering Committee, scope of work, and will be establishing the user group over the next week; email to join the user group; wide participation—don't have to operate glider, can just use the data. There is interest in adding sensors to gliders. Hope to have the website up by October. Glider picket fence: send in advance of, during and post-storm to gather data—measure vertical and spatial parameters—

eddies, LC, T, S, density, OHC at one point; 18 gliders out in addition to drifters; Navy big provider of gliders this year; examples of data integrated into Navy HYCOM models; post analysis will show critical outcome/value of data from picket line; 3-D viewer for Argo and glider data while out for analysis –a game changer according to glider operators—Catherine Edwards; GANDALF is well-used and recognized tool by the community.

Questions: Joe: a problem with intensity forecasts is that water column heat content is not adequately assimilated into models; how much communication is glider community having with NHC and Hurricane Research Division? Navy HYCOM—Dr. Jacobs—makes sure glider data are being used; Scott Glenn, Rutgers-coordinated with NOAA modeling efforts; R&D version of model running that is assimilating glider data; question is—need to know what spatial glider density information is enough to influence model; with few gliders, crap shoot whether catch conditions; WHOI—sustained ops to monitor LC boundaries –out a year; Gustavo working closely with NWS & NHC-to show value of gliders to models; waiting for metrics & outcomes; Building collaboration now but not totally there; On Tuesday call, Scott said NWS asking for glider data for the first time; NWS impressed with eddy work Kevin did; appreciative of data in their analyses; Mobile Bay, having real problems; Chad-as operator, struggles with feedback loop between NOAA and operators; Catherine Edwards, Chad, Kerri talked about this—in offseason, need to work on this communication; some discussion on OSSIs—understanding of where to put gliders is needed; Bill –website that is functional will hopefully help dialogue; get user feedback on how to improve—best practices, upcoming glider missions; key is to get people to join; Pat H—complicated; feedback problem—Navy models not used for hurricanes/tracking but do assimilate glider data; H. Sally so difficult because didn't have initial forecast; initialization problem is something gliders should be used to address; key to getting into funded program is getting conditions right ahead of storms and not chasing storms. Stephan said the picket line idea is to cover areas where storms pass before they hit the coast keep models closer to reality b/c can't steer glider later toward storm; also set up glider DAC to get onto GTS and into models; Kerri –coverage for hurricane trajectory also taking page from Scott Glenn--EOV GoM –have to balance giving data within eddy features ahead of Sally but also be able to provide coverage for trajectory over storms; in retrospect, what could have been done differently to sample better to get handle on H. Sally? Hard problem. Unclear what answer is. Chad said we need to review in off season—USF, USM, TAMU, MML in Gulf, Skidaway, Rutgers on east coast—usually operate where easiest for us—cost concerns, logistics; nothing in Panhandle—how does Chad and Stephan cover panhandle? Is it important and needed? How much effort worthwhile? More science input needed—NHC/hurricane prediction folks needed; also gap in FL Straits—can we do something? Does it need to be done? Need a list of topics to be discussed; Pat NOAA standing up unmanned systems group part of technologies group; resource to add to ones already have; Bill-need to be able when issues come up to have in your back pocket what you think you need; Nan question: who are the main modelers doing hurricane work? Nick Shay might know, Joe says underfunded & undermanned; need funding not just for computers—real assimilation issues to deal with, multi-dimensional problemsSally missed LC, then slowed which wasn't forecasted; as slowed, ridge eroded and caused to move east—Mark DiMaria—go to guy for questions, issues; need him included for planning & getting ocean right! Need glider data before & after where hurricane was; TV GFS or UK Met Office—two main models TV stations show; European—better precipitation forecast; distinction between what is operational vs research models; Bill—several had intensity forecasted accurately; Scott G said intensity across models varied as much as 50 kn; Track of Laura predicted well, intensity poorly predicted! LC far east, long time over cyclonic eddy, then long track over western Gulf where no feature but intensified greatly—atmosphere mainly responsible; expect intensification over ocean feature but when no feature and still intensifies unsettling! Message people working on this—if a TS comes into Gulf, it is going to make landfall—different than storms up east coast—often go out to sea; Joe--never had storm enter/form in Gulf than turned around and leave Gulf!

Barb wrap up: Board –Jen sending link for tomorrow's Gotomeeting; if specific topics on mind or generated today, send Joe and Barb email so can organize the agenda for tomorrow. Phillip Hoffman=CENOTE—can't make it b/c he has CENOTE meeting with Bill. He will join December Board call; Chris S stakeholder engagement and how crafting for next 5 yr proposal. If questions for Jan/panel, send to Jan or Jen. Motion to adjourn, Stephan, Bill second; all in favor.

End Day 1

DAY 2: 1 October 2020 (Closed Meeting)

Joe: Welcome back and roll call--all here except Bill and Nan Walker. Also staff: Jen, Barb, Chris, Felimon, and Bob C. A motion was made by Alyssa to accept the agenda, second by Stephan and all in favor.

Jan reviewed the treasurer's report. He uses QuickBooks. Each month on EXCOMM he produces the budget summary. For 501c3—categorize expenses in 3 ways-Matt scholarship (\$9K), NASEM funds (\$243K) and "other" non-specified category (~\$10K); NASEM will wind down as pay PIs, will have \$~20K left—need a plan for this; also some membership fees in there; pass through grant money for OE projects; subcontractor fees for accountant who set up QuickBook; Joe asked if we carry liability insurance—yes we do through TAMU, charged to IOOS grant; renews every year in January; Covers Board members and staff; would it cover GCOOS through non-profit activities? Barb said yes; costs about \$8K/yr; comprehensive general liability; set up through Ann J—lawyer; Barb happy to share contract with anyone interested; Board thanked Jan for his work and a motion was made by Renee and second by Steve to accept the report. All were in favor.

Another motion was made by Joe to accept the proposed DM plan of having Felimon and Bob co-lead the team. The motion was second by Dave and all were in favor. Barb will arrange for a six-month review to evaluate the effectiveness of the arrangement.

Kim Yates gave a brief introduction. She works at USGS in St. Petersburg, FL, where she is a biogeochemist focused on carbonate chemistry; works on coastal hazard risks and is on the Interagency WQ on OA; SOCAN founding member, GCAN since 2016, chair past two years.

Barb updated the group on the CETACEAN project-NRDA funded at ~6M for 5 yrs. Data money to SECOORA to pay Laura Showalter/Axiom to build portal. She was formerly with GRIIDC and GRP so good rapport with GCOOS. Stephanie Watson back with GCOOS to coordinate engagement.

The National Academies GRP LCS did a 180 after claiming they were funding LCS as part of Understanding Gulf Ocean Systems (UGOS). GCOOS industry ADCP Data Compilation GulfHub project was impacted. Announced in January 2020 that they were downscaling from ~\$100 M for 10 yr to \$2M for 20 yr. Many including GCOOS bid their projects low expecting funding opportunities in subsequent years. GRP did a new Strategic Plan; GCOOS is entering Y3 and must submit a new budget next week. Priority: ID numerical modelers who want/are using the data. Chris sent Letters of Support from Brian Dzwonkowski/DISL to Barb and Joe to see if they might be useful. The project advisory group is talking tomorrow to discuss the Y3 scope of work and budget that are due Oct 14th. Barb spoke with Mel Briscoe but no good outcome. Should Joe talk with him? Should they both speak with Karena? Monitoring frontal eddies is of great interest to GRP—is the recent paper by Nick's student ammunition to justify need?

Hiron, L., de la Cruz, B. J., & Shay, L. K. (2020). Evidence of Loop Current Frontal Eddy Intensification Through Local Linear and Nonlinear Interactions with the Loop Current. *Journal of Geophysical Research: Oceans*, 125(4), [e2019JC015533]. https://doi.org/10.1029/2019JC015533

Chris Simoniello presented on the process for writing the GCOOS stakeholder engagement plan for the 5 yr IOOS proposal. The approach and content are aligned with GCOOS Strategic Plan focus areas. Input from Board members is requested by November 13, 2020. Joe reminded folks that mission creep is a hazard of the job and to make sure suggestions are aligned with SP focus areas.

Sara provided an update on the Federal Advisory Committee. FAC is pushing for strong academic-private partnerships. The IOOC report included updates for OceanObs 19 conference and emphasized trying to align with UN Decade of Ocean Science for Sustainable Development. Upcoming priorities for GCOOS include descoping our Y5 budget and submitting the Y3 NASEM GRP proposal. OMICS is a growing field. This is an important component of MBON and GCOOS is leading the ingestion of MBON data into RA portals. Currently working on setting up capabilities to serve these products. eDNA and other OMICS products will be considered as they emerge. The IOOS Association Fill the Gaps campaign has been very successful; perhaps it is a way forward with NASEM GRP? What are common data needs for modelers? Kirsten is on the OMICS team and plans to follow up with Bob C.

Joe said the tentative dates for the next BOD meeting, virtual or not, will be April 14-16, in NOLA if in-person. On the next board telecom in December; Phillip Hofmann will talk about CENOTE.

Open floor: Pat said we saved a lot of money meeting virtually; what will happen with those funds? Barb is working on the Y5 IOOS budget now. After that, will look at year-end money and will ask for a no-cost extension to use beyond 31 May 2021. If we can travel, maybe host user group meetings. A good one would be a workshop for the NTL operators as we take over ADCP data so we can help improve quality of data. Not sure if no-cost funds could be used for hardware-many with equipment down after H. Laura and Sally.

Kirsten made a motion to adjourn, second by Jan and all in favor.