

**NORTHWESTERN HAWAIIAN ISLANDS
CORAL REEF ECOSYSTEM RESERVE ADVISORY COUNCIL WORKSHOP**

April 14, 2011, 9:00 am- 4pm
Office of National Marine Sanctuaries

Meeting Minutes

ATTENDEES

Advisory Council Members: Tim Johns (State of Hawai'i); Linda Paul (Conservation); Louis "Buzzy" Agard (Native Hawaiian); Gail Grabowsky (Education); Cindy Hunter (Research); Laura Thompson (Conservation); Sarah Pautzke (WESPAC for Kitty Simonds); Paul Wong (Hawaiian Islands Humpback Whale National Marine Sanctuary (HIHWNMS)); 'Aulani Wilhelm (Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve (NWHI CRER)); Lydia Munger-Little (NMFS for Mike Tosatto); Ray Born (US, Fish and Wildlife Service for Tom Edgerton); Kem Lowry (Citizen-At-Large); Eric Roberts (US Coast Guard); Janice Fukawa (U.S. Navy for Becky Hommon); teleconference: Tammy Harp (Native Hawaiian); teleconference: David Laist (Marine Mammal Commission); teleconference: Don Schug (Research); teleconference: Jessica Wooley (Conservation)

Absent: Danielle Carter (State of Hawai'i); Take Tomson (NOAA – OLE); Carlos Andrade (Native Hawaiian); Bobby Gomes (Commercial Fishing); Kitty Simonds (Western Pacific Fishery Management Council (WPFMC)); Philip Taylor (National Science Foundation); Mike Tosatto (National Marine Fisheries (NMFS)); Matthew Zimmerman (Ocean-Related Tourism); Rick Gaffney (Recreational Fishing); Bill Gilmartin (Research)

[NWHI CRER Staff]: David Swatland, Andy Collins, Dan Dennison, Wesley Byers

[US, Fish and Wildlife Service]: Dan Polhemus

[Members of the Public]: Jean Murdoch (Public); Andrew Wycklendt (Public); Marti Townsend (Public); Teresa Dawson (Public); Judith Tarpley (Public); Marion Ano (NOAA PSC); Amarisa Marie (DLNR-DOFAW)

PURPOSE OF THE MEETING:

- 1) Receive updates on Monument efforts
- 2) Summary of fourth annual Northwestern Hawaiian Island Research Symposium.
- 3) Report on Marine Debris Conference

I. CALL TO ORDER (JOHNS)

Council Chair Tim Johns called the meeting to order

Opening Protocol – [NWHI CRER Staff]: Nai'a Lewis

Mr. Johns reviewed the agenda for the meeting. **Johns:** I'd like to switch Topic G with Topic E since I have to step out for another meeting from 12-1:30pm.

II. REVIEW AND APPROVAL OF MINUTES (JOHNS)

Paul: I've submitted my notes to Wes for changes to the minutes. **MOTION:** A motion was made by Tim Johns to approve the minutes from the last meeting. Motion carried unanimously by voice vote.

III. TOPIC A: MONUMENT CO-TRUSTEE/MGT. AGENCY UPDATES (CARTER, BORN, WILHELM, ROBERTS)

Swatland: The earthquake occurred on the evening of March 10th. There was a collaborative response by all the MMB co-managing agencies. **Born:** Midway Inundation Map, big concern was runway space. NOAA tide data from Midway Atoll NWR during the tsunami event. Midway shelter in place. Flooding on Sand Island and debris on runway. Surveys of the seawalls on Sand Island have shown that the tsunami exacerbated their decay. Much of the fill material behind the seawall was washed away. A significant amount of the runway safety area on Sand Islands remains flooded ten days after the tsunami. Concern about how we protect our Fuel Farm and fuel tanks from future sea level rise. Damage to seawall, Midway breakwater and Eastern Island area by the dock. Eastern Island: Short Tailed Albatross chick is about 35 meters from nest cup, moved back by FWS biologist. Trapped birds in debris line and were extracted by FWS biologist and volunteers. We lost in the vicinity of 110,000 albatross chicks on Midway. Eastern Island and volunteer trying to rescue an albatross. Photo of petrel buried and rescued. Eastern Island: Total of five sea turtles returned to the ocean. A lot of fish in the middle of Eastern Island. Laysan photos: beach erosion and frigate bird. NMFS Camp Damage. Pearl and Hermes North Island approximately 50% loss of vegetation, indicating significant wash over from the south. **Grabowsky**(question): Of the 110,000 albatross chicks lost what percentage is that? **Born:** About 10%, we lost another 2,000 adults as well. **Polhemus**(question): Do we have an estimate on the numbers of albatross lost on Laysan? **Born:** Around 22% of the population lost on Laysan, but we are still getting a sense of the loss with staff getting back out there. **Marie:** Brief update on Kure: we won't know the impact until later. So many chicks were displaced that we don't know which ones will get fed later. **Born:** I agree. Just because the chicks went back doesn't mean that they will get fed. **Swatland:** We are also working on our lessons learned to prepare for the next time something like this happens. There is a lot more information we can gather on the impact of the atolls and islands. We really need to finish a comprehensive, cohesive Monument Emergency Response Plan (MERP). FWS has a pretty good start, so we need to build upon FWS' plan. We are looking at having the same contractor that is working on the Monument Evaluation Strategy to develop at least the framework for the MERP. We've rejuvenated the MMB Emergency Response Plan Working Group. That group will hopefully be meeting within the next month. We are trying to put a link on the Monument website to share information. Initially it will be an internal link. At some point we will hopefully be able to use it to notify the public. We found that cell phones and texts were not as reliable. Few staff have landlines. Emails seemed to be more affective. We are working on improving the way we communicate in an emergency. We did get our folks accounted for in a short period of time. We need to do a better job of getting dialed in with the local Hawai'i civil defense, coast guard and everybody else. The Pacific tsunami warning system has automatic updates on your email and phone. **Paul**(question): What types of things can we do to prepare for sea level rise; breakwaters and airfields? **Born:** We have been discussing raising the airfields on Midway, but that would be a multi-million dollar project. Infrastructure is a big priority at Midway. This recent event has given us a lot of information to look at for future events. **Johns**(question): When do you think you will have cost

estimates on the repairs? **Born**: We sent forward a package to DC, our response cost us around 1 million and restoration cost 55-60 million. **Harp**(question): Will seawater around the Monument and possibly the main islands be tested for any contamination from Japan? **Born**: I've been contacted by several agencies to do set-up testing stations at Tern and Midway. **Paul**(question): It's estimated that the marine debris that got washed out of coastal cities in Japan will end up in the NWHI and the rest of the archipelago in 2016. It seems that now is the time to work with Japan and other Pacific rim countries to try collect marine debris. Could regional sanctuary programs urge the U.S. to pick-up the stuff before it gets here? **Johns**(question): Has there ever been a connection between displaced fisherman and moving them to marine debris collection? **Swatland**: That's a good idea and I would have to talk to the Marine Debris program, the Coast Guard and possibly the EPA to see what we can do. **Laist**(question): Has any thought been given to preparing a summary report to the effects on the environment for this event? **Swatland**: Yes, we have discussed that. We are looking at trying to produce something by the end of the calendar year. **Johns**: Eventually you'd have to brief the NOAA administrator and probably congress as well I'd guess. **Grabowsky**(question): Have the monk seal's been impacted? **Born**: Not that we can tell, but crews are still being deployed to do surveys. **Roberts**(question): Are the outlying runways being maintained? **Born**: That's a big discussion right now.

Johns: State of Hawai'i representative Danielle Carter will not be here today due to illness. Wes has included the update in your folder. If there are any questions or comments please let us know.

Ray Born, USFWS: Short Tailed Albatross, first chick hatched in U.S. at Eastern Island Midway Atoll. Chick has been washed off nest twice: winter storm on 2/12 and tsunami on 3/10. A sub adult at Sand Island Midway Atoll and an adult at Laysan hatched a BFAL chick that did not survive. Laysan Ducks at Laysan: unknown status after the tsunami, some ducks are still there. Laysan ducks at Midway: ten dead and five sick ducks found after the tsunami, lots of protein sources in the ponds from tsunami are being cleaned out. Nihoa Millerbird: ongoing preparation for relocation of 24 birds from Nihoa to Laysan in September. Monk seals at FFS: first seal pup of the year the week of March 7th. Monk seals at Laysan: first monk seal pup born on February 22nd. Humpback Whales at FFS: first Hawaiian humpbacked whale of the year on Feb 25-26. Whales at Midway: on February 26th, a 6-ft section of vertebrate from an estimated 12 foot cetacean washed ashore on the north side of Sand Island. The bones, which had fresh tissue on them, likely belonged to a small species of whale or a juvenile of a larger one. Midway: the oldest known Laysan Albatross in the world, Wisdom, successfully hatched her egg during the first week of February on Midway. Wisdom is at least 60 years old. She was banded as a nesting adult in 1956 and at the time was estimated to be a minimum of five years old. Migratory Birds at Tern Island: nesting adult albatross included 6,656 black footed albatross and 6,634 Laysan albatross for a total of 13,290 albatross. Tristram's storm petrels monitoring has found 120 burrows with 80 burrows with active nesting. Red-tailed tropic bird monitoring is ongoing with 190 adults, 44 egg nests with only 6% of the island surveyed. Red-tailed tropic bird nesting success seems to be declining with loss of live shrub habitat on Tern. The week of February 21st, Christmas shearwaters arrived at Tern Island. Tern Island: shade construction for birds. These shade structures, intended for 2-4 years of use until replacement shrubs can be grown, are to provide shade as well as structure for ground and burrowing birds. Most of the structures built so far were used within 24 hours of being placed in the field, mainly by albatross chicks and red

tailed tropic birds. On the right, Red-tailed tropicbird enjoying its new nesting habitat, compliments of Team Tern. Laysan Island: tsunami did a large eradication of *Pluchea* at Laysan. Intend to clean out remaining small patches. Midway: *eragrostis* is proving to be a good species for restoration work. The sooty tern cloud now numbers about 1,500 individuals. Brown boobies are occasionally seen on the pilings or north seawall. Loveland Island: 1/11/2011 - 1 person, fractured tibia, Millennium: 1/29/2011, 1 person appendicitis. Hansa Coburg: 2/18/2011, 1 person abdominal pains. Winter Storms, 1/14; 2/4-5; and 2/12 . Major damage to Laysan and damages to Midway. Tsunami, 3/10-11. Duke University: 14 students and 2 instructors, 4th year in a row. Frierson: history of NWHI book, Spring 2012. Galapagos: Present for the tsunami, helped with clean up, 15 visitors. Oceanic Society: 17 visitors birds, history, snorkeling, hiking, & photography. Chris Jordan: marine debris impacts. Tsunami response: coordination between FWS, NOAA, and USFWS. Midway Atoll: the refuge recently donated 2,000 albatross ingested cigarette lighters to Marcus Eriksen, co-founder, 5 Gyres Institute, Algalita Marine Research Foundation for a Santa Monica, CA school project to create a surf board to increase public awareness of the marine debris issue in the Pacific. Tern Island: classrooms at Lana' i HS, Roosevelt HS, Iolani HS, and Deaf and Blind School. Central operations, staffing: Midway Manager, Susan Schulmeister, 4/11/2011. Midway Visitor Services Manager to be filled in June. Midway Seasonal interpreter Laurel Logue. Tern Refuge Specialist: Megan Duhr-Schultz due June. Laysan Biotechs: 4 term Biotechs: new person Michelle Kuter. Volunteers: 6 Tern, 2 Laysan, and 3 Midway. Flight contract: 1/26/2011: Asheville Jet, Gulfstream IISP aircraft with 14 seats and 3900 lbs. total lift. We have a GIII jet aircraft with 18 seats, 4900 lbs. of lift, and no need to refuel at Midway. Midway flight time down to 2:45.

'Aulani Wilhelm, NOAA: Tsunami assessment: the impacts that have occurred underwater will be better understood once we have been able to launch our RAMP cruise, which deploys either late July or early August. We will see affects and impacts over time. One mention, given budget challenges, the question of annual monitoring will likely come up. Constituency building and outreach: Two Brothers media report, announcement of the discovery of the Two Brothers generated more than 335 articles and 100 broadcast mentions with a publicity value estimated at \$1,000,000. Education: Mokupāpapa: sets attendance record, 61,000 people visited the Mokupāpapa Discovery Center in Hilo in 2010. In total, nearly 430,000 visitors have been through the center since its opening in 2003. Field operations, vessel hull inspections: two Monument divers now certified as NOAA Working Divers, enhancing vessel hull inspections to prevent introduction of alien species. Policy and planning, DLNR head meets with staff: after being confirmed as the new head of the Hawai'i Department of Land and Natural Resources, former RAC member, William Aila and his wife hike to Ka'ena Point to meet with Monument staff. Research, Natural Resources Science Plan: step-down plan of Monument Management Plan includes 100 research activities organized around 5 themes. Approved by Monument Management Board on April 11, 2011. NW Hawaiian Islands Symposium: 4th Northwestern Hawaiian Islands Symposium sponsored by PMNM, HIMB, & PIFSC. Three dozen researchers delivered oral presentations on understanding and characterizing ecosystems of the NWHI. Coral bleaching and disease, response plan: development of a plan to help inform management decisions and responses to coral bleaching events. Main response components include prediction, monitoring and communications. Please let Wes know if would like to be a reviewer for the Coral Bleaching & Disease: Response Plan. Strategic initiatives, partnership support for world class sand sculpture: photos of sand artist checking her work against Herb Kane painting and

Pele at sunrise at Kahana Bay. Hawai'i State Senate recognizes 10th Anniversary of the NWHICRER: RAC members and management honored with certificate by the Senate for 10 years of ocean protection. A lot of attention was paid in honoring Uncle Buzzy and Auntie Laura. It was really special and we were really happy that that happened. **Marie**(question): Can I give a short update on Kure? **Johns**: Yes. **Marie**: Wanted to share how successful this winter camp restoration has been. This was the first winter camp up at Kure. They are up to 60 acres that they treated for verbasina. The tsunami came in 400 feet. That is a whole area that wasn't inundated. It will become more of a prime habitat as we clear the verbasina. There are only 20 more acres that need to be cleared. A lot of the invasive species removal efforts have helped to maintain our coastline. The tsunami did inundate the U.S. Coast Guard dump that has high concentrations of PCBs. They are hoping to mobilize in August to access if the PCBs have been redistributed. **Roberts**: If the council is interested we could have someone from the Coast Guard do a briefing on the efforts to remove PCBs at the next meeting. **Johns**: Yes, the council is interested.

Eric Roberts, US Coast Guard: The following is a summary of U.S. Coast Guard (USCG) Marine Protected Species (MPS) activities in the Papahānaumokuākea Marine National Monument (PMNM) from January 1 to March 31, 2011. During this reporting period, Air Station Barbers Point continued their dedicated monthly PMNM law enforcement patrols via a USCG C-130 aircraft. No maritime violations were noted within PMNM during these patrols. Additionally, and as part of our standard operating procedures, District Fourteen's Maritime Domain Awareness section monitored PMNM vessel traffic daily via NOAA VMS and the PMNM Entry/Exit Notification List. In February, District Fourteen hosted PMNM's Deputy Superintendent for Policy and Programs, and the Office of National Marine Sanctuaries' (ONMS) Aviation Operations Coordinator for law enforcement training. The ONMS provided a detailed patrol guide for our pilots to reference while conducting patrols of PMNM. In March, District Fourteen supported a PMNM staff request for a multi-agency flight to survey the Northwestern Hawaiian Islands and assess the damages caused by the March 11th earthquake and tsunami off Japan. In addition to the operational activities listed above, District Fourteen enforcement staff participated in several MPS related meetings. Most notable were the PMNM Law Enforcement Working Group which we are planning on having our next meeting in June. I also participated in Hawaiian Islands Humpback Whale National Marine Sanctuary Advisory Council and the Hawaiian Monk Seal Recovery Team. We have a new District Commander, Admiral Charlie Ray and because William Aila is in his new position. I wanted to arrange a meeting between those two and talk over the relationship between DLNR and the Coast Guard. There are a number of things we have historically worked together on such as boater safety and endangered species. It looks like they are going to sit down together in early May.

IV. TOPIC B: EDUCATION WORKING GROUP UPDATE (GRABOWSKY/COLLINS/ANO)

Grabowsky: Education working group update: Andy, Wesley, Barbara, Linda, Auntie Laura and I (and Jessica's office by conference) met on 2/17 to discuss the PAA program and Education in the Monument. I met with Andy, Wes and Marion on 4/8 just to refine our plans and think about what we'd really like to get out of our time in the sun up here. Goals for this presentation: initiate a renewed focus on education at the Monument, revitalize and reinforce the importance of education at the Monument, solicit RAC input and advice regarding Monument education efforts, philosophy, accomplishments and challenges, create a resolution, or two, or three

regarding education. Education history at the Monument: I was there as an Education Alternate in 1999/2000 and saw the early days of forging the education-related portions of the Reserve Management Plan. Particularly at the meeting where Cindy coined the phrase, that is now a guiding principle: “Bring the place to the people and not the people to the place.” This is a great foundation for education at the Monument and remains today. Since then a lot of education efforts have happened: Discovery Center, Navigating Change, Educators at Sea Papahānaumokuākea ‘Ahahui Alaka’i (PAA) Program, and even more recently: education and outreach on Kauai – with a full-time staff person, Na Kama Kai, NWHI Science-Management symposium, today there are 10 education staff - it all started with one. I have been sitting on the RAC happily watching education efforts grow: times were good for education plus there were a whole lot of other opportunities and challenges facing the RAC and the Reserve-Sanctuary-Monument-World-Heritage Site. The RAC and the Monument had pressing other issues: management principles and plans, status of the place, fishing, permitting, co-trusteeship, World Heritage declarations. But now, except for the obvious long-term fiscal challenges facing the nation and short-term budgetary challenges facing Monuments, it is a good time to push education. Remind everyone how important education is: maybe it is our nation’s horrible status in science education, 17th in science (15-year olds); 25th in math, Hawai’i’s status as 49th in science competence, second only to Alabama, the importance of education in creating informed and aware citizens (of every age) capable of making wise voting and political decisions about our natural resources, the Obama administrations push for math, science and engineering education and community college education. My experience on COSEE this summer meeting every Ocean Science Community College Educator and talking with them about what their students need and learning about how much more their island students need. The need to make scientific and cultural knowledge accessible, the loss of cultural knowledge, education fosters a valuing of the Monument in everyone who learns about it. What I’d like to see: recognition of the importance of education and outreach, revitalization of education efforts, including the RAC’s role (Jessica’s bill example of where more RAC help would have been good), reflection on the accomplishments and challenges of past efforts – PAA, resolutions by the RAC in support of education for the Monument. My questions for the RAC are: are there any potential new education efforts you’d like to see for the Monument?: “Watcher at the Window” bring the Monument the people? (Chris Jordan blog and now Emily), better integration between the co-trustees of education efforts?, are co-trustees are understaffed right now?, but we are only a RAC so can we even speak to this?, grant writing with partners? example: EPA’s environmental education grants, better integration with co-trustees education efforts, encourage education permits, require scientists to create a user-friendly report after they finish their research papers from work conducted in the NWHI, are you satisfied with the Monument’s education philosophy of “going deep” rather than broad with its efforts? how could the Monument get its education stories, outcomes, out better? is there enough of an education effort? What do you think of the following resolutions: a resolution written in support of the Monument’s education and outreach efforts to simply document these efforts and our support of them, a resolution in support of the education philosophy of going deep rather than broad - deep experiences often bring a few people to the place and these few have life-changing experiences and go on to be strong educators for the place, a resolution in support of more funding/staff/equipment for the Monument’s education efforts - example: a web person just for education so they can get the word out better or a grant writer, a resolution to require scientists to create some kind of user friendly report intended for sharing with educators and outreach agencies after every scientific

research project partially or wholly conducted in PMNM. Ask for Bill Gilmartin's assistance on this one. A resolution in support of a new Discovery/Education Center for PMNM and HHMS on Oahu. **Collins:** Papahānaumokuākea 'Ahahui Alaka'i program. We have run this for two years we have had 24 participants that have gone up to Midway for seven days and spent three days on Oahu preparing. Vision: to create a cadre of ambassadors for Papahānaumokuākea that reach new audiences in novel ways, inspire stewardship, and make a difference for both the future of Papahānaumokuākea and communities around the planet. Program goals, short-term: to expose twelve community leaders and educators to the value of Papahānaumokuākea and help them understand their connection to it. We task each participant with presenting their experience to at least three groups, writing for the blog, and being available for interviews with the press. In addition, we connect participants with each other to help support one another in their stewardship efforts. Program goals, medium: each participant designs a stewardship project unique to their expertise and community, the implementation of that project will most likely be done within a year of the program; however some projects will take considerably longer. Program goals, long-term: to create a cadre of people from around the planet that understand how they impact Papahānaumokuākea and are working together to increase stewardship of it and where they live, beyond implementation of their individual stewardship projects, participants will continue to weave Papahānaumokuākea into what they do for many years to come. Supports PMNM Management Plan, Ocean Ecosystem Literacy Action Plan: Activity OEL-1.7: Provide annual wildlife-dependant educator and conservation leader workshops at Midway Atoll, targeting a mix of formal and informal educators and community leaders and building upon Navigating Change curricula and vision. And also Activity OEL-1.1: conduct at least four teacher workshops in the main Hawaiian Islands per year to introduce and support the elementary school and middle/high school environmental education programs. Activity CBO-2.3: support other entities efforts to broaden knowledge of and appreciation for Monument resources and management priorities. Activity CBO-3.1: continue to seek out and participate in events that reach a broader audience and provide constituents with knowledge of the Monument. Activity CBO-3.3: continue to seek out and support partnership opportunities that focus on Oceania-related issues. Activity CBO-3.4: continue to build and nurture volunteer programs that develop knowledge of, involvement in, and support for Monument programs and resources. Activity CBO-4.4: seek additional opportunities to expand Monument interpretive efforts to new sites and through new technologies, creating a network of coordinated interpretive sites. Commitment of every participant: create a stewardship plan before even accepted, send in preparatory materials and blog writing, three days on Oahu, present to group on proposed stewardship project, Midway Atoll, revise projects, write blog entry, share knowledge with other participants through hands-on activity, carrying out stewardship plan, help review future applicants, report on activities and evaluation elements and commit to attending a post-trip meeting of participants. Outcomes, communications: BBC autumn watch primetime television show, two episodes, National Geographic website has developed and will include a bolus dissection video, links to PMNM and a growing ocean resources for teachers, two articles in environmental law journals, nature essay published for the John Burroughs Association, numerous presentations to groups and classes of all sizes (required to do at least three), videos by at least three participants, facebook pages to keep PAA alumni connected, <http://soaronhirschi.blogspot.com/> and one opinion piece on marine debris in local paper. Outcomes, students: PMNM incorporated into high school curriculum in the state of Florida, spawned a program for middle school students based on the PAA Program on Hawai'i Island, incorporated into a middle school theme for the year focusing

on stewardship on Oahu, reached at-risk high school students on Oahu, reached 20-30,000 students across the US, Australia, England and South Africa with friends of Fred and big books. Teacher trainings: sixty teachers in California about marine debris and albatross on PMNM; infiltrated NASA endeavor fellows training with Navigating change; UH Hilo education majors (future teachers), connected students in rural Washington State and Hawai'i through science and culture, first grade students educated their parents and whole community about the importance of native plants and animals, year-long science curriculum for New York school districts about exploring local marine environments. Outcomes, communities: workshops scheduled in Florida and California for tour operators and ocean users that will raise awareness of their impacts, encouraged eighty high school students to not only clean up their own school campus, but also their community, inspired middle school students to replant native species in their own state to re-establish habitat for an endangered butterfly, Girl Scout badge created for Hawai'i that emphasizes PMNM and stewardship. Outcomes, the arts: four songs, five kapa clothes, at least five pieces of art that have been exhibited in galleries, a mural of an albatross and map of the Hawaiian Archipelago on the side of a school, a play including a rap, photography exhibit. Continue to: strive for a balance of people from Hawai'i and elsewhere at different stages in their careers who come from a wide spectrum of backgrounds and professions, jointly run the program with NOAA, FWS and the State of Hawai'i, operating the program the same way, but strengthening mostly what happens before and after Midway Atoll. Suggested improvements, modifications and changes: strategize how to make more inroads into local communities to get them to apply, find a better way to connect people to the Monument after the program ends, better connect different years of PAA, perhaps having one past participant help facilitate the program, in the selection process, put more emphasis on those who have the skills and/or community to successfully implement a stewardship project. **Lowry**(question): What's the strategy for outreach for generating applicants and what's the criteria used to select participants? **Collins**: We start the application in December and we put out the information through list-serves, word of mouth, usually we get around 90 applicants per year. We have the previous participants review the applications. We have a rubric that we use to select participants. Marion Ano participated in last year's program. **Ano**: When I was up there on Midway, Pihemanu, I felt the need to write (reads some of her reflections that were written during PAA). When I came back from PAA, I was really sad because I questioned "what have we done to the place where we live?" I asked another PAA participant what are we going to do now? He said, "you connect people here first". Let's get people to love where they live and then we can expand. I think people get connected to places through stories, so I've created an E-Zine. It will be available on the web and eventually be available on mobile devices. I hope to be done in June. E-Zine content, inside each volume of the E-mag: species pages, chosen by interviewees, key clips, personal and professional experiences with the featured species, knowledge well clips, knowledge that resonates. Seabirds volume: species pages, species key clips, storytellers share their experiences and encounters with species featured in the E-Zine. Knowledge well clips: storytellers share their intimate experiences and deep knowledge learned over time about the species in the context of life, human connection, culture, and sustenance. One step closer: storytellers speak on how their collective experiences have changed their lives (shows a video clip of Uncle Mervin). **Roberts**(question): What do think it was in your background that made you a successful applicant? **Ano**: Probably the time that I've had working in conservation, which is over 10 years. Also, I'm always spreading the word about how important it is to care for the earth. **Paul**(question): Do you think it would be helpful to have a discovery center on Oahu? **Ano**: Yes,

I think it would be important to have a hub here. I'm intrigued with putting information into peoples' hands. If people are at the beach or at parks we should have information that is there. There are a lot of places outdoors to host information.

V. PUBLIC COMMENT

Wycklendt: I just recently moved back to Hawaii. After the tsunami hit, I started to think that I could bring resources and help. I believe that the impact will be felt in the coming years. In particular a lot of the debris that will be coming ashore. It's a lot easier if you already have a protection plan in place. I'm not sure how I can help, but I'd like to meet with you to discuss how to help protect the marine Monument and this special area from any impacts. My name is Andrew Wycklendt and I'm with Coastal Planning and Engineering. **Townsend:** My name is Marti Townsend, I'm with Kahea, the Hawaiian Environmental Alliance. I really do support the renewed attention given to Education and bringing the place to the people. I'm also looking forward to the Alliance discussion. I would just like to put into everyone's minds for further thought, where and to what extent will you deal with conflict of interest for members? This should come up early in the process as we start thinking about the people we would like to have on the Alliance.

VII. TOPIC C: SCIENCE PLAN UPDATE (JOHNSON)

Johnson: I'm Hoku Johnson, I'm acting Field Operations Coordinator, Natural Resources Science Plan Update, next (last) steps: presented to MMB on Jan. 13, 2011, final comments from MMB by Feb. 28, final draft to MMB by March 11, MMB adopted final draft at meeting on April 11 and plan to be printed and uploaded to PMNM website. The State is looking at doing a presentation at the next Land Board meeting on the Science Plan if they would like it. **Polhemus:** This has been about a 2 year plus process. It has gone through a lot of vetting and revision. We did try to make sure it was in general congruent with the Hammer Plan, in that it is an archipelagic level plan included both the mains and the Northwesterns. It was also jointly developed by in large the same set of resource management agencies who are also represented on the MMB. **Paul:** Is this an adaptive management plan? What is the shelf life? **Polhemus:** I believe it is intended to be five years. **Paul**(question): Is there a mechanism to do adaptive management type revisions? **Polhemus:** I believe so. We are hoping this is durable enough to last the next five 2-3 to 5 years.

VIII. TOPIC D: SUMMARY OF 4TH ANNUAL NWHI RESEARCH SYMPOSIUM (WILHELM/TOONEN)

Wilhelm: During this presentation we would like to underscore the science and management partnership that we have established between PMNM and HIMB. Also, we would like to emphasize the importance of integrating science and management in order to have strong conservation as well as to establish adaptive management. We have a really strong partnership and community. The RAC has been an important and a stabilizing force and voice over the years on the importance that research serves management purposes. Just as a refresher, the partnership began in 2005 with earmark funding, new congressional funding, between what was then CRER and HIMB and when the Monument was created in 2006 the partnership became through the ONMS the Pacific Island Region. The goal of the partnership was then and continues to remain to enable management focused research. New funding enabled management-focused research consistent with the Monument's ecosystem-based approach to management. The partnership's

scientific accomplishments: 145 peer-reviewed publications, 55 post-graduate and undergraduate students, 4:1 leverage of new funding: partnership funding, 1,070 news articles in the media. The partnership's management accomplishments: communication and trust, adequate science and management capacity is available, management-relevant scientific research is conducted, scientific information is integrated into management decisions through an adaptive process. Growth of NWHI research symposium attendance: in 2007 – 57, in 2008 – 136, in 2009 – 169, in 2011 – 205. Management accomplishments: Carl Meyer's research on shark-monk seal interactions has directly impacted management decision. Through this partnership we have been able to better understand the population structure and put scientific statistics behind what had been observational data. Management accomplishments: 'Opihi monitoring project, this is one of those situations that has archipelagic implications. Lawmakers at the State level relooked at regulations regarding 'opihi and utilized that information for management decisions. I want to give credit that our researchers have been open to looking at interdisciplinary research, scientific research in combination with local and traditional knowledge. Scientific justification for NWHI management: three assumptions, NWHI "Source" for the Main Hawaiian Islands, NWHI are a unique and special place, remoteness and pristineness would buffer the NWHI from threats, including climate change. Re-examination of prior assumptions in light of new science, recent advances in connectivity, research implementing state-of-the art recommendations for connectivity research to support coral reef ecosystem management. Only place to complete a comprehensive community connectivity study. Findings have been surprising! **Toonen**: There needs to be a concerted effort among scientists and managers to talk more. Variability is the rule, exemplar species could be misleading. To try to understand connectivity on an ecosystem based approach as opposed to a single species. What we have been able to do is the first large-scale, multi-species, connectivity study in the world. What we have seen is that there are stacked single species patterns of connectivity from 25 species across the archipelago. Reviews evidence for assumption 1: NWHI are a "Source" for the main Hawaiian Islands. Reviews evidence for assumption 2: The NWHI are a unique and special place, predator dominated, high endemism, new species and records. Reviews evidence for assumption 3: remoteness and pristineness will buffer the NWHI from climate change. What we are finding is that it is the opposite and one of the first places that will lose the ability for corals to grow is the NWHI. **Wilhelm**: The RAC has asked us over the years to look at connectivity across the whole archipelago. Our investment in the NWHIs has been able to support some information that can lead to improve management in the main Hawaiian Islands. Reviews management implications of this new science. Management implications support PMNM boundaries. Science demonstrating World Heritage criteria: outstanding universal values, "enhanced speciation and a phenomenally high degree of endemism", "one of the world's last apex predator dominated ecosystems", "ecological processes and systems continue undisturbed". Remote, but not immune. Science to support social and ecological resilience to climate change. One of the world's greatest natural laboratories to answer climate change questions. Lessons learned: communication and social capital has resulted in greater integration of science into management and policy: protected species, world heritage application, management effectiveness. In a short period of time, our partnership has demonstrated how good communication can enable management-relevant science to address big issues—ecosystem scale issues. By opening channels of communication, we have seen an impressive integration of science into management decisions at a range of levels, including management of protected species, support for our World Heritage application, and the tools to ultimately evaluate the effectiveness of this new approach to governance that we are testing

together. I have been impressed to see that over the period we have worked together, the scientists we work with have been more willing to speak about the management and policy implications of their science. Helping make these connections is critical to integrating science into management, and I applaud the scientists that have increasingly found ways to make their findings relevant to these decisions without compromising their scientific integrity and reputation. We are also seeing more large-scale marine protected being created. We are currently leading an effort to create a network of large-scale marine protected areas called Big Ocean. We will be participating in the 1st International Marine Think Tank hosted by the Society for Conservation Biology Marine Section will be held in December in Auckland, NZ. **Toonen**: In terms of going forward, we are focused on improved communication and to partner in areas that we can really make a difference. **Lowry**(question): Papahānaumokuākea has limited entry and limited use. Are we going to be able to say later on what the new management side of ecosystem-based management would look like? How it would look different from the kind of management that we have now, particularly with regard to fisheries. **Toonen**: I can answer from a scientific perspective. The most interesting implications from Papahānaumokuākea are in the Main Hawaiian Islands. What we can learn about how things work and what the implication are, establishing base-lines and so on for managing resources in the MHI. **Wilhelm**: The most profound changes will be seen across the archipelago. There are going to be changes in terms of how we expend that effort and where. **Paul**(question): Have you looked at the value of establishing a vertical refugia? **Toonen**: We didn't know about these deeper coral reef ecosystems a few years ago. We really don't know how sensitive those communities are. **Polhemus**: The mixing layer in the upper ocean is thickening every year at a rate in meters. Don't assume at depth it's going to be a really great thermal refugia, at least down to a hundred meters. **Grabowsky**(question): Why do you think scientists are asking more management-based questions? **Toonen**: There is a push from the top telling us it is okay to work on management-based questions. Also, there is a cultural shift in young researchers that want to make a difference. The way to make a difference is to talk to resource managers and policy makers so they can use what they are doing to make better decisions. **Laist**: I just wanted to say how impressed I was with both presentations. The science that you are doing is excited, well directed and well placed. Carl Meyer's work is certainly of tremendous importance to monk seals. **Wilhelm**: I would rank this as one of the best achievements over the last decade.

IX. LUNCH: NAVIGATING CHANGE PROGRAM IN MARIANAS ISLANDS(LIMTIACO)

Limtiaco: This is a short video that we created from our workshop in Guam and to bring the Navigating Change program to Guam and the Marianas Islands (shows video). One of the tools that we gifted to the group is a chart of the Northern Marianas and Guam and showcased the Mariana Trench. They ended up making an interactive tool with it on the University of Guam website.

X. TOPIC E: PRESENTATION ON MARIANA TRENCH, ROSE ATOLL AND PACIFIC REMOTE ISLANDS MARINE NATIONAL MONUMENTS(MUNGER-LITTLE)

Munger-Little: NOAA NMFS, Marine National Monument Program. Collaborative management (with other agencies) for four Pacific Marine National Monuments: Papahānaumokuākea (2006), Mariana Trench (2009), Pacific Remote Islands (2009) And Rose Atoll (2009). Coordinated representation for all of NOAA for Pacific Remote Islands and Mariana Trench MNMs. NOAA NMFS, Marine National Monument Program Mission:

to work with partners to understand and protect the unique natural and cultural resources within the Marine National Monuments through the advancement of scientific research, exploration, and public education. Program vision: strong partnerships promoting healthy ecosystems through science-based management by 2016. Monument management structures: it is important to point out here that Papahānaumokuākea is quite different from the other U.S. Pacific Marine National Monuments. Established three years before the other Monuments, it has a functional Management Plan that includes a permitting system and various other specific management actions and needs. Additionally, Papahānaumokuākea is actively co-managed by a seven-member Monument Management Board that includes two divisions from FWS, two divisions from NOAA (NMFS and ONMS), the State of Hawai'i DLNR (both DAR and DOFAW), and the Office of Hawaiian Affairs. It doesn't quite fit into this table, but we wanted to give a sense of how each of the management structures are both similar and different. In addition, the roles of each of the Advisory/Management groups are very different and there is a wide range in terms of membership and level of participation that each group provides for its specific Monument. MNM program overview: MNMs total area 800,076 sq km or 332,076 sq mi. Each MNM extends 50 nautical miles from the mean low water line of the land area. Exceptions in Mariana Trench: Trench and Volcano Units. All are co-managed by NOAA, USFWS and state/territorial governments. Mariana Trench MNM: 96,714 sq mi submerged lands and waters. Islands unit: Farallon de Pajaros, Maug, and Asuncion islands, designated as uninhabited nature preserves under the CNMI Constitution, January 2005. Trench Unit: from northern to southern boundary of US EEZ surrounding the Mariana Trench. Volcanic unit: one-mile circular boundary around each of the undersea volcanoes within the Monument. Maug crater is one of the few places on earth where photosynthetic and chemosynthetic communities of life are known to coexist. Mariana Trench MNM, islands unit: Uracas, Asuncion and Maug Islands. High density of apex predators, largest biomass of reef fishes in Marianas archipelago. Most diverse collection of stony corals in Western Pacific. Trench unit: deepest known points in global ocean at 36,000 feet. Volcanic unit: arc of undersea volcanoes containing unique and diverse hydrothermal vent communities. Management partners: NOAA, U.S. FWS, National Wildlife Refuges and governments of Guam and Commonwealth of the Northern Mariana Islands(CNMI). Next steps: notice of intent: April 5, 2011, intent to begin preparation of Monument Management Plan. Joint U.S. FWS and NOAA. Public comment period: July 31, 2011. Public meetings: fishing regulations, non-commercial fishing, Western Pacific Fishery Management Council, consultation with U.S. FWS and Guam and CNMI governments. Pacific Remote Islands MNM: seven islands southwest of Hawai'i – total area 212,714 sq km or 82,129 sq mi, Wake Island, Baker Island, Howland Island, Jarvis Island, Johnston Island, Kingman Reef and Palmyra Atoll. Natural significance: the marine and terrestrial species found here include occupants of some of the world's most pristine coral reefs, important fisheries species, threatened and endangered sea turtles, marine mammals, and seabirds with important historic and scientific value that merit long-term protection and management. Cultural significance: several European countries claimed these remote islands in their explorations and pursuit of resources at different times in history. Some of the islands were discovered and claimed in the 19th century, but due to the remoteness and lack of freshwater, none of the islands were settled until the 20th century. All of Pacific Remote Islands have exceptionally high densities of fishes, corals, marine mammals, and seabirds. Previously established National Wildlife Refuges. Wake and Johnston still managed by the US Air Force until agreements are terminated. Management partners: NOAA via Marine National Monuments Program, U.S. FWS and National Wildlife Refuges. Other: U.S. Military

and the Nature Conservancy. Next steps: notice of Intent: April 5, 2011, intent to begin preparation of Monument Management Plan. Joint U.S. FWS and NOAA. Public comment period: July 31, 2011. Rose Atoll MNM: Located east-southeast of Pago Pago Harbor, American Samoa – total area 34,800 sq km or 13,436 sq mi. Proposed for addition to the Fagatele Bay National Marine Sanctuary (per Proclamation). Determination expected in Fall 2012. Sanctuary and Monument planning processes are complementary. Natural, cultural, historical significance: the Samoan name for Rose Atoll is Nu‘u O Manu, meaning village of seabirds. Rose Atoll, also “Motu o Manu” (Isle of birds) and called “Muliava” (last channel of the Manu‘a islands) by the people of Manu‘a, is one of the most pristine atolls and is probably the smallest atoll in the world. 113 species of stony corals. One of largest remaining populations of the globally depleted giant clam. Deep sea coral forests. Several newly discovered fish and invertebrate species. Management partners: NOAA/NMFS/Marine National Monument Program, NOAA/NOS/Office of National Marine Sanctuaries, proposed addition of Rose Atoll to the Fagatele Bay National Marine Sanctuary, U.S. FWS, National Wildlife Refuge, Government of American Samoa, Division of Marine and Wildlife Resources and Department of Commerce. Next steps: management planning underway. NOAA/NOS/ONMS, sanctuary expansion process: Fagatele Bay National Marine Sanctuary, U.S. FWS: comprehensive conservation plan, Rose Atoll National Wildlife Refuge. NOAA/NMFS: fishing regulations, non-commercial fishing, Western Pacific Fishery Management Council and consultation with U.S. FWS and American Samoa Government. Other activities: research plans, NOAA/NMFS/PIFSC, scientific research plan for the Mariana Trench, Pacific Remote Islands, and Rose Atoll MNMs. Exploration and research workshop in September 2011 to identify research objectives/needs specific to the Mariana Trench Marine National Monument. Seabirds and pelagic fishes interrelationships workshop in April 2011. Management plans: currently working with NOAA staff and line offices to identify management priorities, mutual objectives, mission overlap and participation in preparing and implementing the plans. **Johns**: Do you have advisory councils? **Munger-Little**: Rose Atoll will have a SAC, the other two don’t have them at the moment. But we are looking at it as we go through the process. The proclamations for these three monuments is much less restrictive than PMNM. **Johns**: Where is the funding coming from? **Munger-Little**: It comes out of each agencies’ budget. There is no specific funding for any of these Monuments.

XI. TOPIC F: MONUMENT ALLIANCE DEVELOPMENT (COLLINS/SWATLAND)

Wilhelm: Just before David begins, you remember at the previous meeting we had a discussion about the continuation of the RAC as we move from the non-FACA compliant Monument Alliance (MA) to the final FACA compliant body. The MMB unanimously agreed that it is a good idea to concurrently run the RAC with the non-FACA compliant MA until the final FACA compliant body is seated. We will have an overlapping set of advisory bodies. That gives opportunities for the RAC to decide how you would like to continue and how long. The end of this discussion you might want to take action on how you would like to proceed.

Johns(question): Do we have a list of open seats? **Swatland**: We can provide that information.

Swatland: Monument Alliance update: previous RAC meeting January 20, 2011. Reviewed Monument Alliance genealogy. Reviewed previously approved MA composition. Discussed differences between interim non-FACA compliant MA and final FACA compliant body. Discussed tasking for RAC MA Working Group. Status update April 14, 2011. RAC MA Working Group met via phone February 11, 2011 to review required tasking and start working on FACA compliant MA Charter. Next working group meeting to be scheduled in early May.

Next steps: MMB Alliance subcommittee approval for interim MA Operating Guidelines and solicitation verbiage. DOC approval of MA protocols and routing to DOI for approval (then down the DOI chain). Solicit interim MA members. Also, the RAC MA Working Group will continue to work on the charter and then come to the RAC for approval. Once it is approved by the RAC it will go up the separate chains. We will ensure that the FACA compliant charter addresses procedures to identify and address conflict of interest issues. **Johns**(question): The RAC MA Working Group focus is only the charter? **Collins**: Basically looking at all the documents that relate to the operations of the RAC and see whether those apply to the Alliance which is primarily the charter. The rest of the composition has already been approved by the RAC. **Paul**: I suggest that we put the MA Subcommittee to bed. **Swatland**: Based on MMB decision to continue RAC while interim MA is in place, RAC must decide how to deal with term lengths. Two potential options: extend everyone, accept resignations from those who wish to leave, and solicit for new members or find out who is now expired and solicit replacement members. Consider action via RAC Executive Council or RAC MA Working Group. Monument Alliance Composition (shows matrix). **Johns**: Looks like we are going to live for a year or two? **Swatland**: Getting the FACA approval is a time consuming endeavor. So I'm not sure how long that will take. **Johns**(question): How will this look? **Swatland**: It will be individual, non-consensus input. The meetings would be run by MMB folks each quarter. **Johns**: That group will be running parallel to us. **Swatland**: Yes. **Johns**: The current members have to personally decide what they want to do next. **Harp**: Regarding the Cultural Working Group, they don't provide phone conference like you do here. I'd like to encourage electronic usage to be more inclusive to the community. The RAC has been much more inclusive in allowing us to participate. **Johns**: We should formally decide if the RAC should continue. **Wooley**(question): Is there a way to fill the empty seats? **Wilhelm**: Yes, that is an option.

MOTION: A motion was made by Kem Lowry to concurrently run the RAC with the non-FACA compliant Monument Alliance until the final FACA compliant Monument Alliance is seated. Motion carried unanimously by voice vote.

MOTION: A motion was made by Uncle Buzzy Agard to extend everybody on the RAC until the final FACA compliant Monument Alliance is seated. Motion carried unanimously by voice vote.

MOTION: A motion was made by Linda Paul to rename Monument Alliance Subcommittee to the Transition Planning Subcommittee. Motion carried unanimously by voice vote.

Johns: Linda will be the chair of the Transition Planning Subcommittee. At the next RAC meeting provide a report on the purposes, functions, members, and process for soliciting new members. **Paul**: We should be clear and refer to the Monument Alliance Working Group as the Alliance Charter Working Group. **Paul**(question): Bill, Don, Rick and Marti are on the Alliance Charter Working Group. Who is the chair? **Collins**: We will check on that. **Johns**: Make sure have a report back at the next meeting.

XII. TOPIC G: NOAA DRAFT AQUACULTURE POLICIES(PAUL)

Paul: Here are the recommendations that we have put forward regarding the NWHI CRERAC Ocean Aquaculture Committee's draft recommendations for a national aquaculture policy for

NOAA: Support well regulated and self sustainable aquaculture projects in the coastal zone and in state waters that focus on feeding local communities; Limit coastal-zone aquaculture operations to the cultivation of native species that have not been genetically modified; Promote and assist the development of Native American and Hawaiian aquaculture that respects and supports indigenous communities, culture, knowledge and values; Establish a priority for the protection of wild native fish, marine habitats, healthy ecosystems, and coastal and fishing-dependent communities; Include strong environmental, socio-economic, public health, and liability standards to regulate facility locations, permitting, monitoring and enforcement, including an environmental impact statement for every project; Prevent significant environmental harm from aquaculture operations and avoid adversely impacting existing ocean uses, including wild capture fisheries; Avoid interactions with marine predators, particularly threatened or endangered species; Avoid the harvest of wild fish populations to supply grow-out operations; Minimize and if possible eliminate the use of wild forage fish as feed by cultivating species that are omnivores or herbivores; Ensure open ocean aquaculture pays a fair return to the public for the use of public trust resources, and hold owners of facilities liable to the public for damages to the marine environment from their operations, either intentional or unintentional; Be subject to a full, meaningful, balanced, and open public participation process; and Coordinate with relevant national and state laws and integrate into regional ocean planning and management efforts. **Johns**: I will sign this and move it forward.

XIII. TOPIC H: REPORT ON INTERNATIONAL MARINE DEBRIS CONF. (MORISHIGE)

Morishige: Report on 5th International Marine Debris Conference: March 20th-25th, 440 participants and 38 countries. They participated in workshops, sessions (oral presentation and panel), posters, exhibit hall, field trips, movie night and art exhibit. Representatives from various sectors including research/academia, NGOs, industry, and government. Good representation related to Monument. Session: Managing marine debris in marine protected areas, Scott Godwin, chair. Session: Diving for debris: Methods and approaches for human-powered in-water marine debris removal. Presentation: Derelict fishing gear removal in the PMNM, K. Koyanagi. Session: Aerial remote sensing of marine debris, W. Pichel, chair. Major output of the conference, the Honolulu Strategy: results-oriented framework for action over the next 10 years. Based in-part on result chain framework done for Monument Mgmt. Plan. Input gathered during conference and from participants. This goal will be achieved through the collective action of committed stakeholders at global, regional, country, local, and individual levels. The Honolulu Strategy is being developed through an iterative process working with debris managers and practitioners around the globe. A) strategies and actions for the prevention, reduction, and management of land-based sources of marine debris: litter prevention, solid waste management, municipal (urban) waste management, industrial solid waste management. B) strategies and actions for the prevention, reduction, and management of at-sea sources of marine debris: shipping, boating and transport, commercial and recreational fishing, Aquaculture installations and oil/gas infrastructure. C) strategies and actions for the removal and processing of accumulated marine debris, shoreline areas, pelagic areas, benthic deposits. Cross-cutting components to support the Honolulu Strategy include understanding the marine debris challenge and understanding the economic impacts and opportunities. The Honolulu Strategy is aimed at promoting sustained action to halt and reverse the incidence of debris in coastal and marine environment by 2030. The Honolulu Commitment, invites signees to commit to: adopt sustainable practices and minimize waste, set targets to reduce marine debris, collaborate and share information,

participate in a global marine debris network, implement Honolulu Strategy. Downloadable at www.5IMDC.org/about/commitment/ **Grabowsky**(question): How strong were the commitments? **Morishige**: From the ones that I heard, they were pretty strong.

Johns: Looking at the action items from the previous meeting. We did have Working Groups and Subcommittees meeting since the previous meeting. We also looked at the Marine Debris Conference. We have an update on the MPA FAC. We asked for a report on the new Monuments. Let's have a summary of the permitting season at the next meeting. Thank you for following up on these action items.

XIV. PUBLIC COMMENT – No one from the public volunteered to comment.

XV. FURTHER DISCUSSION AND POTENTIAL RAC ACTIONS RELATED TO THE DAY'S AGENDA

Johns: Any further action items? Let's go to the Education proposals. **Grabowsky**: I will work on drafting the resolutions for the next meeting. **Johns**: Come back with proposed resolutions and we will discuss at the next meeting. **Paul**: I have a request for the Education Working Group to come back with a resolution to have a Science Discovery Center on Oahu to be supported by PMNM and Humpback Whales. **Johns**(question): Did we get a report from Humpback Whales NMS. **Johns**: Let's have Humpback Whales do a report at the next meeting. Tell us where you are in the Management Plan Review as well as focus on your Education efforts. **Grabowsky**: I want to make sure that the research that is being done up there get's back to the public and is used for education purposes. **Johns**: Please talk to Bill Gilmartin and have a report back at the next meeting.

4:00 Announcements & Adjourn