

Ridge 2000 Steering Committee Meeting Minutes
October 18-19, 2007
Washington DC

Attending: Donna Blackman, Mike Cheadle, Rob Dunn, Pete Girgius, Peter Michael, Lauren Mullineaux, Joe Resing, Rob Reves-Sohn, Bill Seyfried, Andreas Thurnherr, William Wilcock, Suzanne Carbotte (attended Oct 19). **NSF:** Adam Schultz, Phil Taylor, Brian Midson, Gayle Pew, Michael Weiland. **R2K Office:** Katie Phillips, Liz Goehring, Eric Simms

StCom members unable to attend: Chris German, Anna Metaxas, David Naar

Thursday, Oct. 18

Welcome, opening remarks (DBlackman)
Introductions around the table.

Review agenda and meeting goals

- Updates on R2K program components
- Assess aspects at Endeavour that could enhance NEPTUNE returns
- Discuss scope of envisioned Mid-Atlantic Ridge focus site
- Consider vision for next-phase Time Critical Studies
- Outline/specify revisions to draft Program Review Packet
- Select new StCom membership & discuss next R2K Chair search
- Set priorities for short term, means to communicate them
- Outline plan for next phase of R2K (FY08-13)
- Vision of scientific understandings expected & means to achieve
- Assess program areas needing revised approach

Activities since the last meeting:

ISS transition plan was drafted and the community informed. The R2K office received only a couple comments on the plan from the community. NSF did receive comments from a few people as did some other Stcom members. Some in the community are concerned that the plan spells “the end of the EPR”. This is not the case – EPR investigators can still apply to core programs for sea-going work. Science integration work at EPR (and Endeavour after 2008) will still be supported by R2K. The discussion with Adam at the last Stcom meeting about NSF funding was convincing – perhaps this needs to be relayed to the larger community. Also, previous attitudes toward R2K from some were poor because all resources were going to the Pacific – those people are pleased about ramping up MAR ISS work.

The first dedicated R2K proposal review panel took place this year in June. Donna gave a briefing to the panel at the start – Adam noted that this was helpful to the panel. The general sense was that the dedicated panel was a good thing and that R2K science was more fully evaluated in this setting.

Program review packet: Donna and R2K office put together a draft review packet with the input from StCom at the Austin meeting. We will discuss this in detail later in the meeting.

The 2007 edition of R2K Events was released. There were good, in-depth articles on each of the ISS in this edition. General feedback on the Newsletter was positive.

Review of current R2K publications lists: Recently, there have been more interdisciplinary papers – moving in the right direction for science integration. It was suggested that the R2K

office send out the current R2K publications list to the community prior to the Program Review to solicit their input on any missing publications.

NSF Report (ASchultz)

The new R2K dedicated panel met in June. The panel combined relevancy review with normal panel review duties. There was a significant improvement in “Ridge-knowledge” of the panel members compared to the standard panel. Donna’s briefing was important and helpful. The overall feedback was positive.

The panel review criteria have changed. Currently 5 categories:

1. Transformational, break-through science
2. Exciting, high impact science that fills identified gaps in knowledge
3. Good, solid science. Worthy of funding.
4. Potentially competitive science that needs more work.
5. No go.

These changes are to the intellectual merit portion of proposals. This system will presumably generate fewer high scores.

PTaylor- BioOCE (BO) works a bit differently; after scoring the whole proposal, panel goes back and asks if the ideas themselves are transformational.

March 15 R2K target date: received 33 proposals – 17 submitted to MGG, 4 to BIO/OCE (BO), 3 REUs, 1 split between BO/MGG.

The awards this round went well – MGG awarded ~30% of requests, BO awarded 55%. Additional funding this round came from OCE – we should not expect this to be the norm.

Average request size per project: \$484K vs. \$360K in Nov 06; Average award size per project: \$437K vs. \$119K in Nov 06. Awards have gone up because we are no longer in the R2K budget crisis that we were in during the last panel. Also, more realistic proposals are being submitted.

PTaylor- all of the bio-related R2K proposals were also discussed at the regular BO panel. In general, similar reviews/priorities were obtained in both panels. There was a higher level of scrutiny in the R2K panel.

At the close of FY07, there is a positive FY08 balance (~\$1.4 M) going into the Jan 15, 2008 deadline, and we are now on track to maintain <40% pre-commitment of future year funds. At present, 94% of FY09 \$4.3 M (within MGG budget for R2K) is available. Ship time is available so may be included in proposals for the Jan 15 deadline. Ship time requests have been down in recent rounds; don’t want to risk swinging the pendulum back the other way by encouraging too many requests now, but time is available for projects that need it. Discussion about ship time requests and panel review procedures related to ship time followed with conclusion that the panic level in the community should drop, but should also avoid flooding NSF with requests. Details of any shiptime request will be carefully considered for each project.

A disciplinary analysis of the submitted/funded proposals shows a range of topics across R2K science. Might be interesting to look at this type of breakdown for past panels as part of the Program Review packet.

Conclusions: the financial picture for R2K has improved. The recent awards were consistent with recommendations made by StCom in Austin (even though this advise was not provided to the panel, since it was not available to PIs at the time they wrote/submitted proposals). It appears that the community has a shared view of the science that needs to be done.

Discussion about ship time requests and requests for Jason/Alvin. Some people have a sense that they are being urged to use one vehicle over another or are being asked to use one when they had requested the other. Ship schedulers will/should work with PIs to schedule cruises at times, on ships, with vehicles other than those requested if it makes sense.

Updates on ISS/TCS activities:

Endeavour (WWilcock)

3 cruises took place during the summer 2007 season:

Wilcock and Kelley- recovered Keck seismometers, used ROPOS, which, with new side deck deployment, can be used in any weather that a ship can hold station. 12 undergrads participated in the cruise. Documented significant sulfide stock-work exposed south of Mothra.

Chadwick- worked at Axial volcano and Endeavour, deployed Di Iorio scintillation experiment, and later cruise recovered it; recovered Butterfield instruments.

Girguis - worked on thermo-biology project, collected *Alvinellid* worms, also coordinated with Kelley to recover microbial incubators; made an excursion to Middle Valley to look at organisms there.

Ongoing studies: Gill et al.- petrology; Hannington et al.- basalt chemistry; Lilley- vent work and instrumentation; Garven et al.- hydrothermal modeling.

NEPTUNE Canada- have laid cable and are now doing post burial inspections. Will be deploying the nodes next summer. There has been issue(s) with voltage converters at MARS testbed. Not sure they will be ready by early next summer but the aim is to be ready for next summer. Planning for 2 months ship time to deploy core experiments in middle to late next summer, possibly Oct. ROPOS successfully tested seafloor cable-laying system on Wilcock/Kelley cruise. Weather window for use of this system is still to be worked out- extra load on ROPOS occurs. Core experiments: seismometers, hydrothermal instruments, moorings to continue SeaBreeze work.

PGirguis- 2007 Biology cruise: Thermal tolerance of tubeworms was astonishing, showing upper limit at 58-60°C for hours; doing genetics studies to understand this tolerance. Also saw major shift in macrofauna, over last 12-18 months, from short fat tubeworms to long skinny tubeworms (less healthy?); Mothra, too, but to lesser degree. Investigating changes in chemistry to explain this shift in composition and density. Simple hypothesis- reduction in sulfide, but not clear this is the case... might be worth putting this out to community to get input.

LMullineaux- could be successional processes in motion.

WWilcock- big change in fluxes are also being observed. There appears to have been a huge temporary flux at Salty Dog in summer 2005. (Jonathan Kellogg's UW thesis).

East Pacific Rise (LMullineaux)

Four upcoming cruises: Multi-channel seismics (Carbotte/Mutter et al); 3rd LADDER cruise (Mullineaux et al); vent fluid chemistry (von Damm); microbiology (Sievert et al).

LADDER project is not funded by R2K, but it has certainly benefited from R2K coordination and is contributing to the R2K database/science. It includes Thurnherr's physical oceanography work as a large focus.

Site coordinator (Dan Fornari), and oversight committee chair (Suzanne Carbotte) are very active and this benefits the EPR ISS the community.

DBlackman - Infrastructure has been a focus of their efforts- what is the level of impact during a given cruise, having to follow navigation guidelines such as Coordinator/Oversight Committee have set for this site (e.g. sitting at a benchmark at the beginning of an Alvin dive)? Are there things to consider/suggest as we ramp up at MoMAR?

LMullineaux- it is frustrating, you feel like you are giving up precious seafloor time.

PGirguis- yes it's frustrating but it's helpful. Issues include battery time, going to USBL system (which ROPOS has) that can alleviate many navigational issues. ROPOS claims location accuracy to within a couple of meters.

Suggestion to talk with Chris German about this, to get to WHOI ship or Deep Submergence group to consider installing an USBL system on Alvin.

Ken Rubin/Mike Perfit, dating of new lava, indicates it erupted in 2005 with range of seawater contact times extending over ~6 month period, initially along 18 km-long zone then more localized. The maximum seismic activity post-dates the lava ages. Dating of samples from outside the axial summit trough documents an area where eruption occurred outside the immediate axial zone.

AThurnherr- significant temperature anomalies from CTD and MAPRs were seen in April so that suggested very recent activity at that time.

LMullineaux – clearly results are still controversial but will get a lot of people talking.

Note that 'eruption' means different thing to different people: when a seismic swarm happened, when lava first appeared on the seafloor, when an event plume appeared, etc. We need to be careful when communicating about this to avoid confusion.

Tracer release experiment: Released at 9°30'N on the seafloor, 40 days later found at 9°50'N, some entrained into plumes. Early on, concentrations were very low so it appeared that much was lost. Later in the cruise, the tracer was found west of the axial summit at higher concentrations. Conclusion is that it went outside sampling area early on and then came back. Demonstration of how larvae might be able to be dispersed along the axis fairly quickly.

A lot of EPR results were reported in Sept07 InterRidge Theoretical Institute presentations:

Von Damm- eruption effects on hydrothermal fluid composition

Edwards- microbial transformation of minerals in plume, implications for chemical flux

LeBris- chemistry of diffuse flow, evidence of microbial and abiotic transformations

Luther- in-situ chemistry results

Sievert- microbial sulfur metabolism (anaerobic chemosynthesis) and colonization

Mullineaux- invertebrate colonization, effects of production of larval supply to region, eruption had catastrophic effect on larval supply, but larvae recovered and were sampled

Shank- succession, including after recent eruption

A difference in larvae obtained in sediment traps vs. pumped samples has been noted.

Lau (PMichael)

Recent results are in the Summer07 R2K Events Newsletter.

There was a recent cruise by Chinese scientists that was well-integrated with R2K work. They filled some gaps in surveying, and found hydrothermal activity beyond the previously identified areas. Their funding came partly from minerals exploration and exploitation agency. This is something to keep in mind in the future as mineral exploitation might come into conflict with science work.

Several new Lau projects with ship time were funded in the last round and cruises are still being scheduled.

Thurnherr's LAUB-Flex floats are still active although funding for that project is over.

Time Critical Studies (JResing):

The G-cubed theme volume on the EPR eruption is still open.

At Axial volcano, Chadwick got his Bottom Pressure Recorder monitoring work funded, these data show that the caldera floor is rising, suggesting an eruption could occur in the next 5-10 years.

DBlackman – when we have real-time seismic data from NEPTUNE, can that be integrated with SOSUS event locations?

WWilcock- should be compatible. Perhaps Bob Dziak could work on looking at that data through his existing grant? Everything from NEPTUNE will be online and available.

-break-

Education and Public Outreach

Distinguished Lecturer Series (KPhillips):

2007 lecturers (Gary Massoth, Mike Perfit, Doug Toomey, Jim Childress) are wrapping up their lectures. Evaluations have been conducted at several institutions.

2008 lecturers have been chosen: Julie Huber (Emerging Voices), Chuck Fisher, Debbie Smith, Doug Wiens. Application process just closed – applications are up from last year. We have 21 applications for 16 spaces.

Advertisements went out via mail to the AGU mailing list, were published in Eos, on ASLO website, to R2K e-mail lists. Suggestions for other places to advertise were given: AIBS (America Institute of Biological Sciences), ESA, ASM (American Society for Microbiology).

Julie Huber was recently featured on Science Friday. We should link to this from the VentureDeepOcean website.

Discussion of publishing a volume around speaker series, as was solicited by Springer recently. Various StCom members noted pros/cons of printed vs. on-line special volumes and their search/electronic access characteristics.

PGirguis- might want to target a more broadly read magazine for DLS topics (Scientific American, Popular Science)... look into proposing a series of Scientist Features.

FLEXE update (LGoehring):

FLEXE (From Local to EXtreme Environments) – project with the international GLOBE program. Currently, piloting the first section on temperatures. The second section is in planning stages. There are schools involved in the US and Germany that are participating in the pilot run. The program is online and has kids collecting and uploading data, comparing

different data sets and participating in peer review. The important message for kids is that not everything is known.

FLEXE provides a good opportunity for R2K scientists to “plug in” to an existing E&O project. Liz is participating in Karen Von Damm’s December EPR cruise, and GLOBE will write the website for that cruise so that information will be open to the entire education community.

R2K website doesn’t currently have information about FLEXE. Need to get this up before the program review.

PGirguis- Broader impacts are now more important for NSF funding. Can templates be provided for people to use in their proposals?

LGoehring – Yes, we can definitely do this. We seem to have a hard time getting the word out about this, though.

JResing – It could help to lay out this information clearly on the website somewhere.

PGirguis – we need better marketing for this

JResing – maybe we could make some boiler-plate information available on the website?

DBlackman– PIs can always apply for an REU to incorporate E&O after a grant had already been funded if they can see a good fit with a given project.

Both Eric and Liz are available to help with proposal writing for any community members who are interested.

Linda Goad (NSF) stops in to discuss ship scheduling, specifically with respect to Atlantic:

DBlackman – what can we do to aid coordination with foreign colleagues/ships for work at MAR, as activity for a MAR ISS ramps up?

LGoad – we can work with other nations on ship time. It may be possible to barter time on different ships. We need to work with/through our French colleagues and put pressure on them to get time on the French ships.

R2K should work through Linda on this– don’t contact foreign ship schedulers on your own.

When working with French colleagues, you can put a note in your ship time request that you could potentially work on a French ship if they have equivalent facilities.

-lunch-

Education and Public Outreach (continued)

Outreach for Informal Audiences (ESimms):

VentureDeepOcean (VDO) website has a new look and feel. StCom members encouraged to visit the site and to send any comments to the R2K office. We are also looking for ways to integrate VDO with our other efforts.

Image Bank- is a joint effort between the R2K Office and the Data Management System. It is mainly for the use of the R2K community and will include pictures, videos, maps, model sketches, etc. A preliminary metadata form has been developed and tested with a number of different media. The plan is to create an online image submission form. Next, we need to get images from the community (this Fall). We plan to connect the Image Bank with VDO to automatically generate “featured images”. Copyright issues are being discussed now and should be ironed out in the next phase of development.

ROV competition - R2K is teaming with MATE to sponsor the upcoming competition that will be held at UCSD in June 2008. Team missions will be based on a storyline around retrieving stuck OBSs from the new lava flow at EPR. In addition to the actual ROV competition, teams must submit a report and give an engineering presentation.

Informal Science Work- Still looking for samples for California Science Center (CSC), Extreme Zone in hall of Ecology.

ASchultz- offered some small chimney samples.

Attempting to identify a seafloor rock sample that is currently in the R2K office, to make sure that it isn't needed for research before we donate it to CSC.

PGirguis – Is there any relationship between R2K and the Smithsonian Institution on their new extreme environments exhibit?

ESimms- We should get in touch to make them aware that we could help.

InterRidge (DBlackman)

The International Data Sharing Meeting in Kiel, Germany, May 2007, was co-sponsored by R2K, InterRidge, Margins, InterMargins. The meeting had good attendance from many countries and the general feeling was positive and cooperative. MAR ~35-37.5°N was named as a test site for French/US metadata sharing. Sharing of metadata is a starting point for encouraging sharing of actual data between European/US scientists.

Proposals for new working groups are in the process of being reviewed by InterRidge Stcom members. There were seven proposals (G1-G7), and Donna recommended that three be combined into one group to work on off-axis/temporal evolution issues. What thoughts do others have?

AThurnherr- I really like G7 but would be better to widen the geographic focus, instead of aiming for just S. Atlantic.

LMullineaux – ChEss already has an infrastructure to do what G7 is proposing, but not completely redundant.

BSeyfried – if three of these are ranked for 'support', what does that mean?

DBlackman- a few thousand \$USD to support working group discussions and then design a community workshop. Ideally, research proposals would be an outcome of workshop discussions. This is typically envisioned as completion of working group tasks.

Upcoming Meetings (DBlackman):

Fall AGU – we will again have an R2K booth. Need Stcom members to pitch in at the booth. Kitty will be contacting you to sign up for a time slot. We also need donations for the Ridge Smoker at AGU. The Smoker will be on Wednesday evening at the Thirsty Bear. R2KO will display poster board(s) (near beer line) with announcements, and printed sheets available with info.

No R2K-specific special sessions at AGU this year, but several general MOR/vent sessions are scheduled.

WWilcock – there's also a seismology session that has some MOR presentations (S12)

RReves-Sohn – Also session OS14 has new results on Gakkel ridge.

We will not be participating in the Ocean Sciences meeting this year.

R2K Community Meeting (March 25-26, Hotel Monaco, Portland OR)- draft agenda/schedule

R2K Mid-Atlantic Ridge ISS Implementation Plan Workshop (March 27-28)- draft agenda

R2K Stcom meeting – March 29, maybe a couple hours in afternoon Mar 28.

This will be a long meeting, really three little meetings. There are budget ramifications that will be discussed later in this meeting.

AThurnherr – there doesn't seem to be much physical oceanography in Community Mtg.

Should we try to make a push and entrain more oceanographers, students, postdocs?

DBlackman – yes! Do you want to be a co-convenor at the MAR implementation meeting?

AThurnherr – yes if the amount of work is reasonable.

RReves-Sohn – If we care about entraining physical oceanographers, we need to show them why ridges can be interesting.

AThurnherr - the focus of R2K has been on the bull's-eye and not really on the PO questions.

International Geological Congress, Norway, August 2008

Is there interest in doing a RTI in Iceland? Responses suggest this is not a current priority.

Endeavour Observatory- Opportunities StCom should highlight? (WWilcock):

DBlackman – as a Stcom, we are in the position to note things that are of a high priority at a particular site. Since the next round of proposals will be the last opportunity for PIs to propose sea-going work at Endeavour to R2K, are there any outstanding or missing data sets that we should be encouraging PIs to consider?

PGirguis – perhaps sensor or hardware development projects that could be connected to NEPTUNE?

JResing/WWilcock – initial R2K instrument deployment for NEPTUNE is for one year only. Maybe R2K should consider funding more instrument hook-up to the cable. Can NSF do this when OOI is not yet in the water?

ASchultz – PIs should look at the Science Plan and see if there are any remaining questions that could be answered by plugging in some particular instruments.

DBlackman – Should Stcom recommend Endeavour ISS as a priority this proposal round? Discussion by all members about funding and timing related to the NEPTUNE cable and OOI. General feeling was that Stcom shouldn't encourage any particular science at Endeavour, but that we should try to get out the word about opportunities to design experiments to use the cable. We should be encouraging the best science.

Mid-Atlantic Ridge ~35-37.5°N- current activities/plans (AThurnherr):

Two major efforts:

Ongoing vibrant set of time series studies (mostly by French)

ESONET observatory network- 1 of 5 sites may be at Lucky Strike, proposal is currently under review. There will be 700K – 800K Euros to fund the network.

Considerable background data exist, especially on Lucky Strike, but also at Rainbow.

There are some worries on the European side about conflicts at the site regarding ship use/overlap, etc.

Discussion regarding what the scope of R2K ISS work should be.

AThurnherr – R2K ISS should be broader than MoMAR and include more than just the 2 vent sites that are already heavily studied (Lucky Strike and Rainbow)

General agreement among StCom that we should come up with a new name for the R2K site – not use MoMAR.

Data sharing between US and InterRidge partners will be very important. We need to work out a plan to make data-sharing work-able in some way.

ASchultz – it's important to show that we'll be partners with the Europeans in this effort – that we will not come in and try to take over the entire area.

Much of the low-hanging fruit at these sites is already harvested; we might need to develop a new type of plan – different from previous ISS implementation plans – this will need to be considered at the Implementation plan meeting.

AThurnherr – Portugal is staking a claim at Rainbow site, it is within their waters. It is possible that both Rainbow and Lucky Strike may become MPAs, so that will require additional coordination for work at those sites.

PMichael – Can we select a complementary site that is relatively open?

AThurnherr – this is not so easy at MAR.

RDunn – had mantle work already been done?

ASchultz – some has been or is currently in the pipeline.

Discussion – we need to make sure to include senior people working at these sites from France, UK, Germany, Portugal and invite them to the Implementation Plan meeting. Some of these names can be found on the MOMAR.net website.

Time Critical Studies– vision for these efforts (JResing):

In light of the mid-term review, TCS is still a worthwhile endeavor, and the current focus in the Pacific is still appropriate. There remain a number of outstanding questions to be answered:

- Mega-plumes – how/when are they generated
- Cycle of magmatic volatiles
- Modes of crustal accretion
- Mega-faunal community dynamics
- Links between seismicity, diking, and eruptions

When should we respond?

Based on indication of *recent* activity as identified by real time monitoring.

If seismic evidence indicates an eruption, event migration and other indicators.

If a major seismic event is occurring.

RReves-Sohn – we should always respond at an ISS

JResing – we need to be careful not to “cry wolf” and wear people out. There are many logistics to deal with for a response cruise.

LMullineaux – The EPR response cruise was very helpful for understanding larval dispersal after an eruption. The timing was fortuitous.

AThurnherr – the EPR response was a big success.

BSeyfried – seismic events are really important and can change the character of vent systems.

Brief discussion of the relative importance/or not of event plumes and efforts that should/should not be made to try to locate them.

Where should we respond?

Northeast Pacific (real time SOSUS, ship availability, ongoing research, NEMO, NEPTUNE Canada, MBARI, recent NOAA Vents mapping, existence of melt lens along Vance segment)

Mid-Atlantic Ridge, newest ISS

Other? Loihi?

Are there reasons not to visit areas without instruments in place or not well mapped?

Currently, response criteria tends to be case-by-case. Should we try to set up formal guidelines?

RReves-Sohn – We need to formulate the criteria but still need to discuss responses on a case-by-case basis. Instruments could be an item on the list to be discussed with other criteria.

AThurnherr - why not open up cruises for volunteers who would go?

DBlackman- we have a TCS mailing list (~35 people?), but we could be more explicit that we are looking for new people.

KPhillips- do we need to entrain more new people into the group of 5 leaders? or is the list sufficient?

JResing- we have lots of “personal scientific gear” sitting in a warehouse ready to go, so it may be hard to entrain more people/gear.

MCheadle – what were reasons that people gave for wanting to go to places without instrumentation?

JResing - the thought that you may find a mega plume, or a young vent system.

MCheadle – because there have been responses, you start to up the criteria, to find different things.

JResing - The larger the number of points we have sampled, the better the chances we have to understand what’s going on. There’s still plenty to be learned.

Atlantic Opportunity?

A Mid-Atlantic ISS at ~35-37.5°N opens new possibilities for rapid response. Seems likely that InterRidge and Europeans will want to be involved. Is a new proposal required to fund and coordinate this effort? Is it different enough?

DBlackman – the Europeans are interested in rapid response and they have some capabilities here.

PMichael- is there any data on how often we might expect events?

DBlackman - evidence of changes at Lucky strike may be 10’s of years, but we don’t know for sure.

ASchultz – perhaps, after the review, a new TCS proposal could be put together.

AThurnherr- a plume was observed at MAR with a shape and height very different from known Pacific plumes, and totally unexplained at this time. Don’t know if this was an event. No clear indication for a change in water column stratification.

Vents Program participation

Previously, NOAA/PMEL was very involved with response efforts. This may be less-so in the future due to funding constraints. Perhaps some additional funding could come from Ocean Exploration – it was suggested that Adam contact Steve Hammond about this.

LMullineaux – it would be good to encourage new, younger people to get involved.

There is certainly room for new people.

-break-

Program Review Packet

The R2K office draft of the Program Review Packet PRP was sent to Stcom. Comments?

ASchultz – the audience for the packet will most likely be 5/3 geologists/biologists both in and outside of the US, representing the range of disciplines within R2K, mainly senior people.

RReves-Sohn – we should include some pretty pictures.

WWilcock –a bit too bio-centric, should be corrected by adding more information, not taking away bio.

PGirguis –need to have more succinct ‘lessons learned’ from ISS – maybe a few examples such as Luther/Shank work on sulfur, animals at EPR; microbial incubators at Endeavour.

RReves-Sohn – paradigm shifts were pretty underwhelming. We should emphasize how we conduct field programs. The coordination has done a great job, and should be emphasized. It has even been copied by other nations. We've also found out where the difficulties were, which is valuable. Also, up to now, most money has gone to field programs; the data now coming out are ripe for integrated understandings. Review panel members need to understand how difficult it was to get to this point, but that we *are* on the trajectory to getting there. We have gotten past lots of obstacles that were in our way.

ASchultz – should do a SWOT (strengths, weaknesses, obstacles, and threats) analysis. This is an honest way to assess the program.

WWilcock – don't like the word paradigm, better that it be lessons learned and new explanations. Including controversial facts is fine. We need to get this from each key discipline.

DBlackman- followup on Rob's point. We tend to talk lots about logistics, and there has been criticism about 'where's the science?' What do you think? Should we put more in?

JResing- do it in framework of interdisciplinary work, bringing a wide range of people together to work on problems. Everyone is now starting to speak the same language.

PMichael – we need to also show scientific results.

JResing – The first five or six pages were fairly dry. Need nice umbrella statement upfront.

MCheadle- What are the buzz words, how does it affect other BIG questions. Needs to convey our excitement. What's the reason we're doing this? What gets us excited about this? We should rearrange the achievements to open with what are the key developments.

RReves-Sohn – We should emphasize the EPR eruption... including the discrepancies/controversies. These have brought up a lot of discussion in the community.

AThurnherr – just make sure not to focus on 'hype'.

RReves-Sohn – we should also focus on the contributions of the Data Management System.

ASchultz – this is a good idea because lots of money have been spent on this. Good to show how this is building up fundamental capacity.

PMichael – also highlight the advances made in visualizations.

RReves-Sohn – make sure everything on website is up to date.

ASchultz - review panel will most likely be shortly after December; he'd like to see a draft of the packet ASAP.

LMullineaux – there are some science statements that need correction.

MCheadle – we should emphasize that we are now moving into slow-spreading centers. Show a graphic with changes related to spreading rates. The thing that will interest the world is life and global circulation.

AThurnherr- maybe there's an influence but I don't necessarily agree.

LMullineaux - but the chemical cycling and the influence on global chemical cycling *is* important. We need statements up front about why ridges are important.

RReves-Sohn – We should get text on this from Chris German.

BSeyfried – The R2K program is process orientated. We need to make clear that we are looking for the mechanism controlling the systems that we monitor. We are working well towards this goal despite a lack of funding.

Discussion– general agreement with this point.

Education and Outreach sections: seem to be out of order.

WWilcock – maybe we should put some of the more detailed information into an appendix.

BSeyfried – need to replace the word "hydrothermalism"

DBlackman – who will agree to do a careful read/edit of the document once it has been revised to address these comments here? We are aiming to have the new draft done in later November? All Stcom should read and comment on the document, but we will rely on a few people to get back timely comments: Mike, Bill, Joe, Pete G (will focus on bio stuff). In the short term, we need extra info, like specific science examples.

RReves-Sohn – do we have numbers of scientists who've attended various meetings, by discipline, to emphasize unique community that we've built. Maybe as a pie chart.

KPhillips – we have some of that information, and can try to pull something together.

BMidson – include total number of awardees. He'll help with that.

Should include in an appendix the 1-2 page summaries from all R2K-funded projects, along with a key figure from their work.

Friday October 19, 2007

Near-term Priorities (BSeyfried)

Information on priorities is what the R2K Chair can take to the NSF Ridge proposal review panel to provide direction beyond the Science Plan and workshop reports. This replaces the former relevancy review for proposals. For example, currently, synthesis is lacking in R2K. At Endeavour, studies of the role of sediments is lacking.

DBlackman – we have the opportunity to steer here. For example, are there crucial contextual studies that need to be done at Endeavour?

Discussion– general consensus that Stcom is uncomfortable telling PIs what they should propose to do. If we do make suggestions, it should be in a laundry list format that is made available to the entire community.

R2K office should also communicate to the community the timeline for work to spin up at the MAR ISS.

DBlackman– the first R2K deadline for MAR proposals will be in 2009, the Implementation Plan should be out in Summer 2008.

DBlackman– what do we need to communicate to the EPR group?

Discussion– people don't seem to be getting the message that R2K is still interested in funding integration work at EPR and that proposals for EPR sea-going work can now go to core programs. Generally agreement that a dedicated (brief, bulleted) letter from Donna to the community would be a good idea to communicate deadlines, goals, etc.

Any specific priorities for Lau right now?

PMicheal – nothing pressing. Lau has a mature statement of directions and there are a number of new projects underway now. We can just remind people to use the Implementation Plan and workshop reports in preparing proposals.

TCS priorities were largely covered yesterday.

JResing – maybe a discussion of the future directions for TCS should be included in the Spring meeting? General agreement for this idea.

There may still be some confusion in the community about what data-integration proposals are acceptable for R2K funding at 'legacy' sites. Donna should include clarification on this point in her letter from the Chair, and we should also add clarification to the R2K website "proposal preparation" pages.

Other Priorities?

SCarbotte – Margins is sponsoring short pre-AGU workshops on various topics. Maybe R2K should consider funding these for our community too. Travel funds could be conserved this way.

DBlackman – we could consider these for other meetings too – Ocean Sciences, etc.

SCarbotte – workshop ideas should be generated by the community– we could open up a call for these. General agreement that this is a good idea.

-break-

R2K Data Portal (SCarbotte):

New developments:

Google Earth for R2K,- new downloads for each ISS, include connection to Alvin frame-grabber, bathymetry data, sample locations, etc.

Google maps,

OBIS connection

Data for MAR– much of the data are up to date.

PMichael – Do these new Google Earth features replace GeoMapApp?

SCarbotte – no, that functionality still exists and allows users to do different things than Google Earth.

Download statistics: there have been high numbers of downloads of cruise reports, TowCam images. Total downloads are way up since last year. Current policy does not require people to register or log in to download data. Should this be changed?

General agreement that we should not require this. It would be interesting to know who all was downloading things though.

DMS folks have found that the best way to get people up to speed on new features and entrain new users is to conduct small, hands-on workshops. They will not be having a booth at AGU this year, but will have short pre-AGU workshop.

Notes on the International Data Sharing Meeting in Kiel, Germany, May, 2007:

Presentations on science needs for data access, existing data centers, emerging technologies, etc. Data managers, computer techs, science users attended. Opportunities and obstacles for international data sharing discussed. Good enthusiasm for this.

DBlackman- How is follow-up going so far?

SCarbotte - next steps (these are on-going): develop test bed sites for a data discovery service across globally distributed areas; establish forums for guidance in areas of data acquisition, metadata, Vocabulary, interfaces (eg, France has a dedicated data collection system on their ships); form a dedicated task group to advance in international alliances; establish opportunities for annual meetings of this sort.

List of data from the MAR currently in the DMS, discussion of other relevant data in the area. Suzanne should contact Chris German about this. Discussion continued on specific names of European colleagues that the DMS folks can try to contact to follow-up.

R2K Office Budget (Donna):

Pie chart of expenses, salaries, travel etc.

Recall that when we met a year ago, we shifted \$150K back to NSF for R2K science support. Looking ahead through 2008, we may be about \$20K short, so may need to ask for a supplement to cover March 2008 mtg support. Would StCom support this?

JResing- I thought it was a bad idea to take it out in the first hand. So I support the supplement absolutely.

General agreement for the supplement to support the Spring meetings.

ASchultz – I will need to know that ASAP so that we know how much \$\$ we'll have in Jan. There are some small savings coming (eg, Debbie Smith can't be paid by DLS monies).

LMullineaux- most people supported the decision to send \$\$ back to support science.

Discussion of the Next R2K Chair (DBlackman):

We have one applicant as of now. We can either decide that we are comfortable with this applicant, or try to think up some additional names, and make the selection after we have a larger set of applicants in hand.

Discussion of the timing of selecting a new chair with respect to the mid-term program review. General agreement that we should be positive about the outcome of the review.

The current candidate is strong, but that StCom would like to see a couple more candidates before being comfortable making a final decision.

ASchultz- might not look very positive to the review panel if we are only able to drum up one interested candidate for the position.

Discussion of institutional bias if a potential candidate was from WHOI, since the InterRidge office is currently at WHOI.

Further discussion that the next Chair need to be approachable, able to handle the transition to the final focus for R2K, and able to have vision for legacy issues related to the program.

A list of additional potential candidates was generated. Donna will contact these individuals.

Steering Committee Rotations (DBlackman):

We have 5 StCom members rotating off: Suzanne Carbotte, Chris German, Dave Naar, Rob Reeves-Sohn, Andreas Thurnherr. Thank you to all for your service! Anna Metaxas has agreed to stay on for an additional year.

We have several good nominations for new Stcom members.

Discussion of the candidates in relation to balance of expertise, institutional representation on the committee, and the potential for good interaction between StCom members.

Additional nominations from StCom were discussed.

Decision was to select: Jeff Seewald, Milene Cormier, Ken Rubin, and Spahr Webb from the current list. The committee was concerned about losing representation from the physical oceanography community since Andreas is rotating off, so Donna will contact some potential candidates who can provide that expertise. The final slot decision will be made over e-mail once Donna has a chance to speak to the other potential candidates.

-lunch-

Ways to enhance interdisciplinary advances (PGirguis and RDunn)

Dissemination of cruise data/information

Now: R2K website, weekly log, memos, program information, R2K data portal, Ridgeview, Google Earth R2K datasets.

Discussion of how these channels work and what we might look to do in the future.

Funding for Ridgeview is ramping down. There is generally positive support for the new GoogleEarth products. Some suggestions put forward for Suzanne regarding clarifications that could be made to the data sets in the DMS (mainly regarding processing/collection of bathymetry data sets).

MCheadle – is the DMS looking to use Worldwind?

SCarbotte – We are incorporating web services into the DMS. Data should be viewable in Worldwind as long as they accept the right formats.

PMichael – Can we get lat/lon information for geophysical data files such as locations of axial magma chambers interpreted from seismic reflection data?

SCarbotte – yes, this data does exist, it would be good to make it easier for non-geophysicists to use for comparison purposes though.

WWilcock – we are missing a hydrothermal vent chemistry database - we need something like PetDB only with hydrothermal chemistry data.

Significant discussion with consensus that this type of database is really important, necessary for complete data integration. Right now spreadsheets of chemical data exist, but only in the computers of a few scientists. Mike Mottl and Kerstin Lehnert put in a proposal to construct this database, but were not funded. It sounds like their plan was good. Donna will contact Mike/Kerstin and work with them to figure out if some data could perhaps be served from the R2K Data Portal, or if the project could be scaled down for R2K purposes and re-proposed. More discussion will follow on this topic – perhaps via the online discussion tool on the R2K website.

BSeyfried- R2K does have a responsibility to make this data available for general use.

How does R2K disseminate scientific results?

Now: AGU, special sessions at other meetings, special journal issues, the R2K online reference database.

What should we look to do in the future?

General support for convening special sessions at AGU and/or other relevant meetings specific to each ISS.

How does R2K bring scientists together to discuss future plans?

Now: meetings, workshops, etc.

Future: Spring Community meeting, March 2008. Geological Congress in Oslo, Norway

SCarbotte – should advance the opportunity for the community to propose small workshops for R2K funding

PMichael – What about electronic meetings (video/conference calls).

General support for this as long as they do not completely supplant in-person meetings.

PGirguis – perhaps we should have a sensor development themed meeting?

General support for this.

What is the R2K role in fostering young, interdisciplinary meetings?

Now: R2K postdoc, field schools/RTIs, etc.

Future: could we consider a small seed fund to encourage student innovative projects within R2K?

Discussion- interesting idea but probably not viable within grant structure.

AThurnherr- important for young scientists to continue to have face-to-face contacts with R2K scientists.

PMichael – Maybe we could put together recommended interdisciplinary course lists for interested students.

ASchultz – Maybe we could develop a “student-at-sea” program for students to participate in R2K cruises?

WWilcock – UW astrobiology students developed an interdisciplinary for-students by-students class. Maybe we could do something like that for R2K?

How does R2K facilitate cruises?

Now: TCS cruises, ISS coordination

Future: How will we coordinate at MAR?

DBlackman – we should choose a site coordinator or maybe select a pair – one US/one European?

General agreement with this plan and names for potential coordinators were suggested.

What has R2K not yet achieved?

We don't have a complete “mantle to microbe” model at any one location. Might be desirable to have a “data cube” that shows the interactions in the whole system. An example could be following a sulfur atom from the mantle through a vent, into the water column, through interactions with animals and microbes...

We are also missing site-to-site comparisons.

Other topics and final wrap-up (DBlackman):

JResing – there are questions about R2K integration – have we, how, will we? Maybe moving to the data integration phase will help with this.

BSeyfried – we can't really integrate until we get the vent chemistry database online.

DBlackman – should we bring this up at the Spring meeting? We could discuss advantages/disadvantages of serving limited information from the DMS.

PMichael – We need to get these discussions going before the proposal deadline.

DBlackman – G-cubed does have a facility for publishing data online – outside of a specific publication.

PGirguis – How can we engage the community in the Program review? Should we put out parts of the packet for community review?

Discussion concluded that we should not put out the entire document for community review, but we could send out a call to the community to send in 1-2 sentences providing examples of ways that R2K works well.

DBlackman – we need to solicit white papers for the next R2K focus – how/when should we do this?

Discussion – we should try to get papers in before the meeting, refine them and then have a larger meeting to discuss the papers – maybe meeting in Oct. 2008.

There as a further discussion about MAR and how the ISS will work there. There is concern about stepping on toes of European colleagues already working there. There was also a discussion of whether or not the bull's eye approach will work here. Maybe we should focus on larger, integrated studies not at a bull's eye. It was noted that there does seem to be a bit of apprehension from European colleagues about us starting work at MAR.

-adjourn-