**Teacher-Researcher Networking Strategy**

**Dominique Richardson—PolarTREC Teacher and Frank Nitsche—PolarTREC Researcher, 2014 to 2015**

**Pre Expedition Networking**

1. **How will the teacher communicate with the team before the field experience?**
   1. Email will be the primary method of communication between teacher and researcher before departure.
   2. Communication will be between the teacher and primary researcher before the expedition.
   3. The teacher will visit the researcher and lab before the expedition.
2. **Are there team project conference calls or other preparatory activities the teacher may participate in?**

Teacher will meet some of the team in person. If possible, teacher will hopefully join in on meeting in Hobart before departure. Teacher will be included on team emails.

1. **Are there ways the teacher and researcher can collaborate before the expedition to inform the public, media and other schools about the upcoming expedition?**
   1. Teacher will consult researcher for information for lessons and exhibit development
   2. Teacher and researcher will meet before the expedition and discuss outreach opportunities
   3. Teacher and Researcher will talk to Lamont-Doherty PR group regarding blogging
   4. Researcher might do a teacher training through institution with information from Teacher’s teacher training workshop
2. **What background scientific information is essential for the field research? What journals, books or other materials should the teacher use to learn this content?**
   1. Project Summary and Project Description
   2. How CTD, multibeam, XBT, sediment cores, drones, work
   3. Basic Oceanography
   4. Sea ice cover knowledge
   5. Teacher will read papers provided by researcher, explore information independently and consult researcher with questions
3. **Are there tools the teacher should learn to use or classes to take before the expedition?**

No, Teacher will learn on the ship.

**Networking in the field**

1. **How can the teacher be an effective assistant to the scientific efforts in real time?**

Teacher will assist in research activities on ship: data collection, equipment monitoring, data editing, sample running, sea ice observations, trek map updating. Teacher will be the biologist on board. The hope is that everyone involved with everything, but everyone also in charge of their own projects.

1. **What science topics or issues would the teacher like to discuss with the team while in the field? What scientific topics or issues would the researcher like to see the teacher address?**

Teacher and Researcher agree it is important to discuss:

* Sea ice vs main ice
* Warming ocean water vs warming air and driving forces of melting ice
* Historical ice sheet behavior
* How sea floor shows historical ice movement
* How historical ice movement can help with future predictions
* How the area has not been completely mapped and there is an exploration aspect to the expedition
* How equipment used in science works

Always be sensitive if things don’t go well. Don’t sensationalize anything.

1. **The timeframe for data collection and intense field work may shorten time for additional conversations about Education and Outreach. How will the teacher address these ideas effectively?**

Researcher predicts there should be enough downtime on the expedition for outreach projects and plans to dedicate some time specifically to education and outreach. Teacher will pre-write several blogs (edited by researcher) that can be used in case that intense field work limits time for outreach.

1. **What are unique aspects of the fieldwork that will engage students and the public?**

Antarctica provides a unique appeal that will engage students and the public. This project focuses on the melting vulnerability of East Antarctica which is of importance to the public. There is also an exploratory aspect of this expedition as it will be mapping previously unmapped areas of Antarctic coast.

**Post-Expedition Networking**

1. **What skills and tools can the teacher offer the researcher?**
   1. Teacher is developing a mini polar science/climate change exhibit, presentation and hands on activities that can also be used by the researcher.
   2. Teacher is planning outreach activities at local aquariums, schools and science centers that can be used by the researcher.
   3. Teacher is planning teacher professional development activities that can be used by the researcher.
   4. Teacher will provide biological expertise on the expedition.
2. **What specific aspects of post-fieldwork are the teacher and researcher interested in for follow-up?**

Researcher hopes to share data with other science groups, such as the Leventer Lab. Teacher and Researcher will continue to communicate regarding data sets and information for teacher’s outreach projects. Researcher hopes to publish data from expedition. Data can be used in teacher trainings. Researcher may follow up with local schools teacher worked with.

1. **How will the teacher and researcher collaborate to write and review teacher lesson plans after the expedition?**

Researcher will review lesson plans written by teacher. Researcher will provide data, photos and other content needed. Teacher will provide lesson plans for use by researcher, other teachers and researcher’s institution.

1. **How can the teacher complement their lesson plans with an education tools that are useful for the researcher?**

Teacher and Researcher will discuss accuracy of information in activities and Teacher will provide completed activities to researcher for use by him and his institution.

1. **How will the teacher and researcher regularly communicate outreach, teaching and research updates with one another in the future?**

Teacher and Researcher will continue to communicate regularly through email about possible future outreach as well as to get activities and data from each other.

1. **ARUCUS provides some funding to support travel before and/or after the expedition to support collaboration between teacher and research teams. What ideas do you have for utilizing this support?**

Teacher will visit researcher and lab before expedition. If possible teacher will assist with Researcher’s Science Festival and Open House in 2015 (if only by providing materials if travel support is unavailable).