Teacher - Researcher Networking Strategy

* Pre-deployment
  + Communication
    - e-mail
    - phone calls
    - skype
  + Conference calls scheduled
    - Webinar: Monday, 28 January 2013 at 2pm Alaska Standard Time [3pm PST, 4pm MST, 5pm CST, 6pm EST]
    - Pre-Deployment Call: Wednesday, 20 February at 12pm AKST [1pm PST, 2pm MST, 3pm CST, 4pm EST]
    - Conference Google+ Hangout with Mette and Jette – Friday, March 8
  + Media relations
    - local papers, online news sites, school district publications
    - input from George (NASA) and Sarah (PolarTREC)
  + Essential scientific knowledge or technical skills
    - IceBridge Instrumentation
      * ATM (airborne topographic mapper)
      * DMS (digital mapping system)
      * Radar instruments (MCoRDS, Snow, Accumulation, Ku)
    - cryosphere (ice.nasa.gov)
  + What educational tools I can provide
    - blogs
    - social media
    - photographs
    - video
    - pencasts
    - Doceri example problems & illustrations
    - animations
    - translation of technical details to physics curriculum
    - lesson plans & activities
* Deployment
  + What is needed to be an effective assistant to the scientific efforts
  + Scientific topics for discussion
    - accumulation radar
    - airborne topographic mapper (ATM)
    - digital mapping system (DMS)
    - KU band radar altimeter
    - magnetometer
    - multichannel coherent radar depth sounder (MCoRDS)
    - position/avionics (POS/AV)
    - airborne gravimeter (AIRGrav)
    - snow radar

* + Set up a plan to continue discussions and collaboration during the deployment
    - flight time (8-10 hours)
    - dinner/evenings
    - days off/inclement weather
  + Collaboration plan for writing and reviewing lesson plans
    - begin during deployment
    - fact checking
    - ideas
      * magnetic map with vernier mag probe and logger pro s/w
        + 1D for grade school
        + 2D for high school
        + 3D ?
      * 3D plotting - MatLab, Mathematica, Excel, or other
      * laser range finder - data to create maps, contours, or 3D maps
        + aim in horizontal direction to map depth of field features
        + aim in vertical direction to map height features (from press box or roof)
      * imagej - use DMS data
      * submarine detection game/activity
      * probe to find different densities (like Tim’s lesson but with layers)
      * compass to probe B-field and map results
      * density
      * phase changes
      * trigonometry (use lasers?)
      * snow depth and sea ice freeboard activity
      * other vernier probeware
    - get input from researchers for ideas
  + Identify unique and interesting aspects to engage students (grade school and high school) and the public
    - “Greenland minute”
      * short videos
      * tailored for specific age and/or subject
    - ask a scientist
    - interviews
    - history
    - geology
    - physics
    - chemistry
    - biology
    - ecology
    - meteorology
    - sociology
    - geography
* Post-deployment
  + Skills as an educator I can offer researchers
    - student involvement
    - relating research to the high school physics class
    - educational outreach
    - publicity/PR
  + Specific items for follow-up
    - student involvement
    - lesson plans
      * incorporate IceBridge data
      * collaborate and review
      * useful to research team
      * lesson ideas
      * visits
      * in person
      * video conference
      * bring researchers into classroom via skype or similar
    - communication - set up a plan