Thursday AM   Sensor Management (notes by John Porter)

- Sensor management
  - goals
    - add to metadata for data interpretation
      - sensor relocation
      - track calibration events
    - needs to be done very efficiently
      - bar codes
    - history of the sensor
    - use to establish calibration
      - nagging system
      - preventive maintenance
    - flagging data failures in data
  - track
    - sensor swaps
    - calibration
    - sensor events
      - wasp nest
      -
    - some will require free text
    - others are events that can be a checkbox
    - tie into photos
      - photos of entire station
    - deployment related things - affect entire station
  - + - mobile phones with API can do app.
    - GPS, compass, camera
    - read bar codes
      - can launch activity
    - Mikhail can do
    - the hardest part is easy to use interface and database it connects to
      - perhaps web services interface
  - sensorML standard covers station, deployment, sensor, parameter
    - can be really complex
    - a subset might be a better way to start
  - could use simple date, object, action
    - with table of ids
    - good to dump to from field ap
    - dovetails well into QAQC
  - best practices
    - tie into provisioning of sensors
    - capture sensor documentation when it comes in
    - good reference tool for building metadata
  - lookup table for standard implementation parameters
    - sensor characteristics
  - could be a centralized system - or a standards-based system
  - wiring diagram practices
    - labeling

- photos
- diagrams
- action items
  - closer look at SensorML
    - SWE comes with suite of tools and services
      - sensor web enablement
      - also transducerML
    - who is using it?
      - CSRIO in australia
        - also doing marineML
    - id existing utilities and tools
    - obvious choice
  - development of tools to feed off of sensorML
    - may want to develop relational database that feeds off of sensorML
    - notification services etc.
  - funding?
    - RCN -type proposal
    - supplements
    - LTER product-oriented working groups
      - bring in some outside folks
      - or release time
  - Android application development
    - Android app is easy
      - read ID - bar code
      - action
        - sensor added
        - sensor removed
        - sensor calibrated
        - sensor cleaning
          - need time range for this
      - other - text
    - add photo
    - way of recording time span where work is done.....
    - big issue is linking to system
      - a standard would make it easier
      - perhaps standard web service
    - where do you send it....
    - similar to things used in utility industry
    - could possibly add RFID scanner if desired
      - adds cost
      - possibly serial to bluetooth
      - use QR code
  - who
    - Wade and Derek will research sensorML
    - set up email list
      - many hands make light work