

Minutes from CHPS Meeting Thursday November 19, 2009

Attendees:

ABRFC – Billy Olsen, Mike Pierce
CNRFC – Rob Hartman
NERFC – Rob Shedd
NWRFC – Joe Intermill
NOHRSC – John Halquist
Deltares – Edwin Welles
OCWWS – Randy Rieman (at NERFC)
OHD – Jon Roe, Chris Dietz, Dave Kitzmiller

Pre-reading:

- none

1. Review Support Log

No new major blocking issues.

There was no Support Log distributed this week. (Deltares is in the process of handing off this task to HSD.)

CNRFC: Pete sent an email recently about performance issues. PeterG is handling it.

NERFC: some problems processing short term ensemble grids – GFS is plotting in the south Pacific(!) and SREF shows temperatures that are too cold. Edwin will follow up with PeterG.

NWRFC: no burning issues

ABRFC: thresholds won't plot all the time. This is a known problem when you use QIN; it was supposed to be fixed in September. NWRFC said this is a known issue. Edwin will provide info to Mike Pierce.

General observation: Peter's perception is that questions are getting less frequent. Chris wondered if the 9 month period (March-November) is an indication of how long it will take the CAT-IIs to come up to a similar speed?

General observation: database maintenance is a key piece of CHPS operations. NWS has traditionally not dealt with this very well in the past. Is Deltares going to provide FEWS DB admin training to the RFCs? This is a question for the project, at least initially.

Action: none.

2. Summary from CAT-II meeting this week (forcings)

ABRFC and NWRFC recently provided Dave with some feedback on his draft AHPS proposal. As a result HSMB will not do an internal analysis of forcings data; instead Dave will coordinate and consolidate the CAT and CAT-II local analyses.

On Tuesday Dave reviewed the draft proposal with the CAT-II RFCs during the conference call. Some CAT-IIIs have already started an analysis. Some seem to need help setting up and running DQC.

Dave had some questions for the CAT:

1. ABRFC's method for generating grids from GFE/RTMA – does it enhance with other temperature point data? Mike Boehmke said no. No enhancing is done at NWRFC either. Rob Shedd pointed out that GFE has no tools at the moment to generate extra point data, although a future goal is to incorporate MPE within GFE. Regarding longer term archive for calibration: NCDC has a RUC archive from May 2002, but there have been some changes over the years (e.g., grid mesh length). The archive has temperature, humidity, wind, and pressure. HSMB can also retrieve cloud cover from satellite data (using the GOES-based algorithm). It's not known whether there are archives for Alaska and Hawaii. RUC is the basis for RTMA so they are consistent.
2. Are there any known science issues with deriving the 6-hour temperatures? Since we can get one-hour data from the RTMA there should be no issue. CNRFC asked is the goal to get an archive, develop relationships, and provide an offset? When applying such an offset to the RTMA it's possible that the GFE process may introduce bias characteristics. Furthermore there's the potential for 13 different solutions to developing the "GFE process" (with the associated potential for 13 different sets of biases); we need a nationally consistent approach. We also need something soon. It could be difficult trying to apply a national solution; RFCs ultimately want ownership and control over their own data – hence the desire to produce local solutions.

So what is HSMB's role? Dave was expecting to work with RFCs to summarize the various approaches to forcings analyses, and to identify similarities and gaps. It might then be of help to those CAT-II RFCs who are looking for extra information and don't want to conduct further analyses. Certainly it does not make sense for OHD to run RFC simulations.

What we need right now is to create an archive of historical grids to develop the "offset" method. In the absence of AOR we need some interim tools; we can't recalibrate everything. Ideally we would generate this historical record for all elements on an hourly basis at the finest resolution possible as far back as we can go (!) The CATs will need to look very carefully at their own basin idiosyncrasies. When is the "offset" method needed? The longer we go without AOR the longer we prolong the dysfunction – so the sooner the better. We must also integrate the method into new calibrations. Therefore our approach must necessarily be phased:

- HSMB/DaveK to provide short-term help to generate the calibration data sets using the best/only science we have, understanding of the limitations of our data and preprocessors.
- HSMB to provide longer-term help in the form of a national analysis using the best (finest resolution) grids; it will require a great deal of careful thought to get it right.

How does this fit in with the CHPS transition effort? We must think seriously about what we've done in the past, and ensure we won't do the same in future. For now we'll necessarily perpetuate our mistakes from the past because of our addiction to model parameters. We need the long-term complementary effort. Although it is less of a problem for some RFCs than others, it is a huge issue for the Water Resources program, which hinges on reliable long term stream flow estimates.

Dave concluded that he needs to revise the draft AHPS proposal again; he will merge some tasks, and additionally aim to regenerate long term calibration data sets. He estimated that he could have a new draft available on Friday.

Action: Dave to revamp the AHPS proposal and redistribute.

3. FY10 AHPS budget and contracting status

Chris reported that the next step in the FY10 AHPS budget process is to present the work plans to the OHD Branch Chiefs next week. On the contracting front Jon has been working on tasking statements (SOOs) for 3 different kinds of tasks: an O&M task with Deltares (which includes bug fixes/small enhancements, site support, and training); a supplemental task (for things that are beyond the scope of the current sole source contract); and an O&M task with RMA for HEC's FEWS adapters (HEC-RAS, ResSim).

Action: none.

4. Other

Randy expects to have the hardware installation instructions done by tomorrow. For the CAT RFCs he expects the installation to be less than 2 hours (allow 3 for CAT-IIIs). Once this has been tested at the CATs, he can issue to the CAT-IIIs.

A fully functional Online-standby system requires the software installation to be complete – expected in January for the CATs. Software installation also requires a finalized directory structure, so he and Deltares can finish the installation scripts. Randy is holding a chps_ops meeting tomorrow (Friday) to discuss a change to the directories. Around the time of installation Randy also plans to provide a system manager's "top up" session for the CAT.

Data collection from the CAT-II to NOHRSC: since the CAT-II don't yet have CHPS hardware installed, is there an existing/standard place for the CAT-IIIs to place data so JohnH's "toChps" script can pick it up? The data should be placed on ns1. This will be discussed in detail at Randy's meeting tomorrow. We'll need to send an email to the CAT-II describing where they should place their data. When should the CAT stop sending directly to Deltares and start sending to NOHRSC? John will try to get everything finished by the beginning of December.

Gxsets status? ABRFC had a few problems but it's running again. The program can access time series (from the FEWS database) including snow. James Paul has recently been sharing some information with Lee. ABRFC will be ready to send out the software soon.

Action: none.

Next meeting: Thursday December 3.