

Notes from CAT-II Meeting Tuesday November 17, 2009

Attendees

CAT-II Representatives (note that others were also present):

APRFC	Scott Lindsey, Ben Balk
MBRFC	Tom Gurss (?)
NCRFC	Mike DeWeese, Brian Connelly
MARFC	Peter Ahnert, Joe Ostrowski, Kevin Hlywiak, Bob Fenner
OHRFC	Joe Heim, Scott Young
LMRFC	David Welch(?)
SERFC	John Schmidt, Judi Bradberry
WGRFC	Greg Waller
CBRFC	Michelle Schmidt, John Lhotak

CAT representatives:

ABRFC	Billy Olsen
NERFC	Rob Shedd

Reps from WR Region and NE Region were also present.

Other:

Chris Dietz, OHD HSEB (CHPS Project Manager)
Joe Gofus, OHD HSEB
Dave Kitzmiller, OHD HSMB
Edwin Welles, Deltares

Document reference: Distributed to the cat_2 infolist by Chris during the meeting: “[Fwd: Gridded forcings task document - 11/17]” (original from Dave Kitzmiller)

Agenda:

1. Forcings discussion with Dave Kitzmiller
 - 1.1. Dave has been preparing a work plan for the AHPS FY10 budget. He has developed a draft version, which was reviewed during this meeting (see document reference above). Paragraph references below relate to the distributed document.

- 1.2. Para 1 – a summary of the objective, which is to summarize and consolidate analyses being conducted by the RFCs themselves as they switch their data forcings from point-based to grid-based. The outcome will be a written report in Q2-Q3, with a future potential task of constructing a long-term calibration data set.
- 1.3. Approaches towards analyses seem to fall into 2 categories:
 - Study the biases and statistical differences between the two types of data forcings. CNRFC and ABRFC (CAT RFCs) are doing this as part of their analysis
 - Study the results from hydrologic simulations based on the different types of forcings. NERFC and ABRFC are doing this as part of their analysis
- 1.4. HSMB has received no further feedback from the CAT RFCs since the workshop in Sept/Oct. The CAT-IIs have begun their own analyses. There are no specific target dates for completion, but they are aware they must complete before the CHPS software arrives. In general it focuses on a comparison of forcings. Some are making use of the retrospective feature of DailyQC. NCRFC would like to get their forcings generation automated by the flood season; however it appears that getting grids out of DQC isn't as easy as hoped, due to the existence of a separate coop database and the need for a "fair amount" of QC. Some RFCs are using a new version of the calibration preprocessor from Mike Smith to generate historical MPE gage grids; but there's an array restriction which limits the number of stations to 200 (it's unknown if it will be fixed). RFCs will do their own analyses; HSEB does not need to do it for them but will create a catalog of methods to create and compare forcings and explain the advantages/disadvantages; then RFCs can choose. There will need to be some capabilities to make post adjustments after basin averages are calculated – this is another item in the Forcings proposal.
- 1.5. MARFC and ABRFC (CAT) both reported they each have a method to generate grids from GFE using RTMA. ABRFC's is being used by the other southern region RFCs. We should look for consistency. Chris suggested all RFCs acquire the necessary components from ABRFC.
- 1.6. SERFC would like to know what they should be doing now? Based on the forcings matrix, if SERFC previously indicated their intent to use DQC and GFE, they should already be working on getting them up and running. Joe Gofus volunteered to arrange a GoToMeeting with the DQC developers to provide some setup assistance for those who need it. Participants should send any specific agenda requests to Joe or Paul Tilles, or to the chps_forcings list. All RFCs should feel free to use the chps_forcings list to share progress as well as issues.
- 1.7. Regarding use of infolists: OHD will consider using a wiki in future. The problem appears to be comfort level/desire. MARFC asked if it's possible to include a line in the FY10 AHPS budget as a means to raise the comfort level somehow. There is already an item in the FY10 CHPS budget to address the inadequacies of the Deltares/CHPS wiki – perhaps this could be the appropriate opportunity. Joe Ostrowski recommends including a decent wysiwyg editor to obviate the need to learn the markup language.
- 1.8. CAT-IIs can begin sending forcings data to NOHRSC now, if they can. The reason for transferring data to NOHRSC is so it can act as a central distribution hub; contact John Halquist to acquire the script. Some additional questions for John: What data is being archived? How long of an archive will be retained? Chris will ask John to distribute information.

- 1.9. Regarding support for DQC: it isn't clear what has become of some recent trouble reports. They were sent to RFC support, but there's been no response. Joe Gofus confirmed that some bugs are being worked on in HSEB. It might help to include the chps_forcings infolist on an email. Once reported and fixed the problem then becomes how to get the fixes into the AWIPS national baseline. A process already exists: RFCs should open up a trouble ticket with the NCF (mark it critical) to legitimize software issues which in turn can promote use of ATANs to distribute fixes to the field.
- 1.10. Returning to the Forcings proposal: another longer term issue will be how to calibrate everything. There are numerous methods to generate the necessary datasets as an interim before AOR becomes a reality. A goal of the proposal will be to survey the various methods and provide a recommendation. We need a catalogue of point data used to construct current calibration data sets, and any grids used. There is currently no standard storage method; it isn't clear what's available, what the quality issues are, and how far back the record goes. OHRFC reported that they have already done some collection – e.g., they have hourly xmrq's from Jan 1 1997; also Tom has written a Grass script to adjust the xmrq's to PRISM – some places are good, but PRISM isn't good during the cool season. It isn't just a calibration need - we also need it for operations. In operations we're limited to DQC's inverse distance weighting – are there different interpolation options? (Answer is yes.) It will take a while to create a historical data set; and the input data changes - networks don't stay stable (e.g., temperature readings are very sensitive to placement).
- 1.11. Forcings is a big discussion topic among the ad-hoc FFG group led by ABRFC/Tony Anderson. We'll need adequate gridded forcings at an hourly timescale. There are many ramifications. In cases where there are no radar returns for some snow events, the RFC will have to come up with a completely new data set.

2. Other (Q&A)

2.1. When will the CAT-IIs see the Mod Note for hardware installation? Randy Rieman is at NERFC finishing it up. Chris expects to see something go out by the end of the week, but it may take a little longer.

3. Next CAT-II conference call: Tuesday December 1, 2009.

Action Number/Item	Who	Notes
C2-03102009-01: Capture changes to BOC-II from this meeting; distribute updated version of BOC-II document	Rob Hartman	Closed (updated version emailed on 3/10/09 to cat_2 infolist)
C2-03102009-02: Distribute "matrix" from the OHD ("national") Forcings Team, which describes CAT strategy/requirements for transition to CHPS in the absence of NWSRFS pre-processors	Harold Opitz	Closed (matrix emailed on 3/10/09 to cat_2 infolist)

Action Number/Item	Who	Notes
C2-03102009-03: Each CAT-II RFC to prepare initial version of their entry for the Forcings “matrix”	CAT-II attendees	Closed (all responses received via email by 3/24/09)
C2-03102009-04: Get statement from Deltares whether FEWS has capability to identify sensitive/proprietary data that must be excluded from external reports (BOC requirement)	Harold Opitz	Closed (email sent by Chris on 3/24/09 to cat_2 infolist).
C2-03102009-05: Distribute notes from this meeting to the cat_2 infolist	Chris Dietz	Closed (emailed on 3/10/09 to cat_2 infolist)
C2-03172009-01: Distribute notes from this meeting to the cat_2 infolist	Chris Dietz	Closed (emailed on 3/20/09 to cat_2 infolist)
C2-03242009-01: distribute to all of the CAT-IIs instructions (also script?) originally developed by Joe Ostrowski for the purpose of identifying NWSRFS operations in active use	Chris Dietz	Closed (emailed on 3/25/09 to cat_2 infolist)
C2-03242009-02: review list of operations to make sure they’re accurate; please notify RobH if any critical operations are missing	All CAT-IIs	Closed (emails received)
C2-03242009-03: review list of operations in BOC-II doc to make sure it matches the original script output we gathered	Chris Dietz	Closed (emails received)
C2-03242009-04: update (correct, complete) the Software Migration Mapping document; distribute the updated version to the cat_2 infolist	Deltares/Edwin Welles	Closed. (available on the CHPS wiki under Documentation > Gap Analysis & Migration Mapping)
C2-03242009-05: Compile and distribute to the CAT-II a matrix showing every RFC’s response for AI # C2-03102009-03	OHD/TBD	Closed. Sent via email by Mark Glaudemans to cat_2 infolist on 3/27/2009
C2-03242009-06: Time series output from HL-RDHM must ingestible into CHPS; HSMB will define a format (e.g., SHEF) for said HL-RDHM output and change the HL-RDHM software accordingly	OHD/HSMB	Hold for post-BOC-II; HSMB has received the necessary details, but the requirement isn’t needed until beyond February 2011.

Action Number/Item	Who	Notes
C2-03242009-07: For agenda April 7 meeting: report from NERFC on their investigation into a replacement HWG process.	Rob Shedd	Closed. Presented as part of the 4/9/09 monthly briefing.
C2-040720090-01: Find out status of Baseflow implementation in OHD (incl MODs)	Chris Dietz	Closed. Now irrelevant, since no RFC uses BASEFLOW.
C2-040720090-02: Check to see if cat_2 infolist is working correctly. NCRFC reports not receiving some mailings.	Chris Dietz	Closed per email from Mike DeWeese on 4/22/09.
C2-041420090-01: Send out an email on preparing for CHPS prototype hardware IP addresses	Randy Rieman	Closed. Information distributed during Buddy visits.
C2-041420090-02: Send out documentation to cat_2 infolist on ER approach/procedures for RFC site backup	George McKillop	Closed by email to cat_2 infolist on 4/20/09.
C2-041420090-03: Send list of Techniques used to Chris (including esp)	CAT-II	Closed
C2-041420090-04: Let Chris know if you use IHABBS and if so, which version	CAT-II	Closed 4/29/09
C2-04212009-01: Forward to the cat_2 list documentation on DailyQC's algorithm to fill in missing station data.	Mark Glaudemans	Closed 7/30/09 via email
C2-04212009-02: Come up with an alternative mechanism to define Techniques that are in operational use at all RFCs; solicit results from all RFCs	Deltares/Edwin, Joe Ostrowski	Closed. Report provided at meeting on 4/21/09
C2-04282009-01: Draft a list of Techniques and distribute to CAT-II	Deltares/Edwin	Closed. List created 5/13/09
C2-04282009-02: Review and provide feedback on list of Techniques from AI # C2-04282009-01	CAT-II	Open. List sent to CAT but did not send yet to CAT-II
C2-04282009-03: Determine a single XML format for describing rating tables for ingest into CHPS; send examples using the agreed format to Deltares/Edwin	Harold, Mike DeWeese	Closed/Canceled. 11/6/09: Deltares has determined they will ingest legacy NWSRFS format rather than define an interim XML format and then change when WaterML comes along.

Action Number/Item	Who	Notes
C2-04282009-04: Distribute functional requirements document for USGS rating tables retrieval and processing.	Dave Reed	Closed. Forwarded to the cat_2 infolist on 4/28/09
C2-04282009-05: Come up with a proposal for ingesting NOHRSC SMWE data into CHPS to meet OHRFC's requirement	CAT	Open
C2-04282009-06: Add to the next CAT call agenda an item to discuss a national approach for alternative to IHABBS as a basin delineation and UHG development tool.	Chris	Open
C2-009222009-01: Compile and distribute to Deltares a list of CAT-II CHPS focal points gathered during the buddy visits.	Chris	Closed. Email sent to cat_2 infolist on 9/23/09.