

Notes from CAT-II Meeting Tuesday November 3, 2009

Attendees

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

APRFC	Scott Lindsey
MBRFC	Tom Gurss
NCRFC	Mike DeWeese
MARFC	Joe Ostrowski
OHRFC	Tom Adams
LMRFC	David Welch
SERFC	John Schmidt
WGRFC	Bob Corby
CBRFC	Michelle Schmidt

CAT representatives:

ABRFC	Billy Olsen
NWRFC	Joe Intermill

Other:

Chris Dietz, OHD HSEB, CHPS Project Manager
Dave Kitzmiller, OHD HSMB
Edwin Welles, Deltares

Document reference: None

Agenda:

1. Forcings work: plans, progress (RFCs)

- 1.1. LMRFC – investigating use of GFE and MPE/DQC. GFE: can start GFE, ingest model data; can see neighboring WFOs and RFCs. With help from ABRFC/Boehmke have loaded scripts (smart tools). Currently reconfiguring MAPE calculations to run on a cron; successfully generating grids. MAPE xmrgr's are being converted into GRIB for NPVU. Need to refine procedures for producing 6, 12, and 24 hour xmrgr's. Goal is to become more automated. Now generating text file w/MAPE for 5 day forecast for internal use (but willing to share). Currently ready to go live with GFE for QPF. MPE/DailyQC: can open the application but very slow. Can ingest data and review, but some issues – crashes when try to click on MAPE. Receiving assistance through the WHFS help desk. [Also noticed during recent event a comparison between DQC and xnav

for 24 hour total precip shows values are consistently different. Suggestion: DQC ends at 11Z instead of 12Z?] LM has converted to ASOS stations to generate computed MAPEs; will compare these with GFE. ABRFC developed a GFE smart tool which uses the ASCE method; MikeB sent out info to cat_2 in April '09 with summary and documentation - interested CAT-ILs should search cat_2 list archives for info. MikeB will provide direct support to help set up (Billy Olsen concurs). Script takes temperature, wind, and dew point from the RTMA and uses the ASCE equation to make the MAPE grid. Use the WFO ISC grids for forecast values. LM has an archive of MAPEs (some) for all basins. LM uses MAPX as the default but still also generates MAP; like having both. Would like to generate historical MAPs using DQC. Future plans: conduct verification to see what's going into the models.

- 1.2. SERFC – also has the smart tool (described above) from ABRFC running on a cron to generate fields. Has not done anything with DQC yet, still focusing on GFE. Weather and some AWIPS builds have impacted progress.
- 1.3. NCRFC – similar approach to LM – combination of GFE and MPE/DQC. Has been a struggle getting DQC running – several bugs and some usability issues. Receiving assistance from OCWWS and MBRFC. Want to do a retrospective analysis with DQC to look into consistency of MAPs (ref. email on cat_2 list). NWRFC reported that CNRFC has done some similar work but only with Mountain Mapper (MM) not MPE/DQC. NWRFC is also looking into calibration point data with goal of producing historical grids. Not top quality but seems adequate. Mike Smith has developed a way to dump out point data with consistency corrections applied to generate a data set consistent with calibrations. We need some data to work with until AOR comes along. The AOR project has had problems in the past getting funding and didn't take off. Now that CHPS is motivating RFCs to get historical grids it's become a more important topic. PRISM – future is unknown; recently resumed monthly average temperature and QPE grids. NWSHQ and NCDC are discussing potential long term sources for data. Regarding usability issues with MPE/DQC: OCWWS is currently polling the regions on priorities for RFC workshops – GFE and DQC have risen to the top. Should see a final list within the next few weeks.
- 1.4. OHRFC – reiterates the issues with DQC; had hoped to use it for post-analysis but currently dead in the water. Making progress with GFE – can generate QPF; exploring different ways to use for observed temperatures. Will need to evaluate to see how good the temperatures are. Not sure yet whether to go with RTMA or RUC13. Might incorporate automated Grass scripting procedures; don't recommend using Grass for interactive QC.
- 1.5. AKRFC – using GFE to generate QPF. Using MPE for QPE. Also using GFE for temperature grids + using “Boise Verify” to QC the grids from GFE. Plan to evaluate the forcings by using synthetic stations and comparing monthly means with PRISM. [CBRFC noted they have completed a comparison with synthetic stations through 2000; need to correct significant biases in PRISM temp grids. CB uses the HL distributed model. CB expects to have initial evaluation results in the next 2 weeks. There is a presentation on the web – Kevin will forward the URL to the group]
- 1.6. WGRFC – running the ABRFC/Boehmke scripts. Still busy training staff in GFE – significantly different from NMAP. Interested in looking at DQC but concerned it's arduous. No comparisons available yet. Archiving their grids. Needs to quit raining!
- 1.7. MBRFC – not really created anything yet. Plan to do analysis. Want to compare MAP with DQC. Want to compare MAT with RUC and historical MATs. Expect to create MAT and MAP from all sources then to a comparison. Are there sources for historical RUC? DaveK reported that there are but it depends which variables you need. Archive goes back over 8

years for RUC; 4-5 years minimum for RTMA. Issue is that models and methods have changed over time. Tom will contact DaveK for more info.

- 1.8. CBRFC - transitioning from MM to MPE/DQC but there are so many issues. Concerned that there are no OHD resources to work on DQC to get it to the desired end state; Chris will discuss more with Jon Roe. Also looking into biases in PRISM grids. Working on GFE implementation: it has a way to mimic the "Specify" part of MM – does QPF, future temperature, and future freezing level. Precip is ~99% complete – GFE creates the grids, can edit with GFE. Expect to have temperature and freezing level by February. We should leverage the large amount of home grown effort put into GFE for CHPS.
- 1.9. MARFC – busy getting GFE operational. Seems to be a question of knowing who to talk to and what to ask. GFE isn't used at RFCs as much as it could be. Recommend all RFCs use it as much as they can. Will contact ABRFC for their MAP procedures. Have done nothing with MPE/DQC yet – need to compare with various home-grown methods and eliminate (the latter) where possible. Getting hourly observed temperatures from RTMA. Using GFE for QPF and QTF.

2. Other (Q&A)

- 2.1. Are we involving the ET staff adequately in the hardware activities? Chris has notified regional AWIPS program managers, and requested that HICs distribute the information to their local ESAs. She has also coordinated with NWSHQ/OOS (AI Wissman) – he will send out a message through their channels.
- 2.2. Reference to NOHRSC – goal is for all RFCs (CAT only, for now) to send data forcings to NOHRSC as a central collection point; data are then forwarded to Deltares (for troubleshooting purposes). NOHRSC is also interested in gathering data for future IWRSS-related testing. Includes all forcings for CHPS models. CAT-II RFCs will receive instructions. In the coming months.
- 2.3. Will the Migration Training be one of the RFC workshops this year? Possibly. The NSTEP funds will most likely be applied to the Migration Training but details haven't been ironed out yet. CHPS has budgeted for Migration Training in FY10, so NSTEP funds could also be applied to a different class. CHPS expects to pay for 2 people per RFC to attend Migration Training; some RFCs will send a third person but must use funds from other (RFC) sources.

3. Next CAT-II conference call: Tuesday November 17, 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)

Action Number/Item	Who	Notes
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)
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

Action Number/Item	Who	Notes
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.
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

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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.
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.