Minutes from CHPS Meeting Thursday December 3, 2009

Attendees:

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

Pre-reading:

- none

1. Review Support Log

No new major blocking issues.

There was no Support Log distributed this week.

Chris expressed serious concern over the reports coming out of the CAT about things not working properly and poor performance. In light of the imminent migration for the CAT-II, she wanted to know if it was time to re-think the schedule in any way.

NERFC: There are still some problems and software bugs but nothing that can't be dealt with. As they expose more staff to the system, more problems will surface. This is par for the course.

ABRFC: It's true there seems to be a "bubble" of issues at the moment. Upgrades will always contain bugs. ABRFC fully expects there to be more issues after the December release, with a corresponding increase in chps_ops traffic. Some issues are difficult to explain in an email. ABRFC said another site visit would be beneficial.

NWRFC: Same comments as NERFC and ABRFC. Yes there is some frustration. NW tends to only post to the chps_ops list when there's a major problem. At the moment NW is focused on getting their configurations working with new calibrations and defining displays. They've had some flooding, and some staff on leave over the last holiday. NW is not yet concerned in a major way with how things are going.

CNRFC: Progress is slow, but it's a brand new system. They do need help for some database issues because they're not familiar with it yet. There is a steep learning curve. Chris asked if additional (e.g. database) training would help. CNRFC said the admin training was pretty basic and they'd like more information on the intricacies of the system.

ABRFC said training isn't the biggest problem – it's the system not working the way it's supposed to when running in an operational fashion. You can't, for example, afford to lose mods when you approve a forecast. The forecasters are beginning to flex the system the way it will be used routinely so we must get problems addressed. JohnH pointed out that this was the same case with NWSRFS

when it was introduced; one can do all the testing in the world but we'll still see problems when the system goes into real operations.

ABRFC feels as if they are re-migrating continuously. There was chaos with the release after the Tulsa meeting, with a flurry of fixes/updates that took several weeks to iron out. We can't afford for the same thing to happen in December. If the December release is as bad, then the buddy system will break. Then we run the risk of having the CAT-II get frustrated as they have to wait longer, and then trying to do things independently and getting even more frustrated as things fail. The original vision of the CAT-II coming along one year after the CAT was based on thinking that the CAT would have few remaining questions of Deltares by that time, so the CAT would be in a position to answer CAT-II questions. We're still not there. Perhaps it's a question of re-defining expectations for the CAT-II; perhaps things will be harder than we expected for the CAT-II. Chris said we do have the Support & Maintenance contract as a fall-back mechanism if the CAT-II needs more support than we envisioned.

The group generally agreed that we need to take a look at the December release and revisit where we are at the CAT meeting in January. When is the next CHPS release due? Deltares says December 15. With the holidays some sites will have difficulty getting much evaluation time in before the New Year. Rob Shedd plans to be around through Dec 23/24, so NERFC will be able to take a look at the new release. ABRFC won't be able to install until after January 1. NW said it will be tight, but they'll try to do some testing and assessment before the New Year. CNRFC said they don't have any leave issues but there could be some weather.

Action: NW to report back on performance of its update states runs (slowing down, or as fast as it always ran).

2. Performance – esp runs, database, network/system overall. Next steps?

A while back we had a tiger team looking into software performance. We made some changes. The last Chris remembers was talk about moving the OC data storage onto the local disk (workstation) instead of running across the network. Where are we now and what are the next steps?

Poor system performance isn't a new issue; it's been around for a while. Forecast runs at ABRFC used to take 5 minutes, now they take 20 minutes. The update states run now takes 1.5 hours. On the other hand NERFC sees no performance problems; they've seen no gradual slowdown with update states – it's always been 10-15 minutes. NE does notice that the system gets a bit sluggish when they run 5 workstations at the same time, but they haven't done much of that yet so can't provide any timing data. ABRFC has noticed a definite slow down with the increased load in parallel ops. CNRFC noted a slowdown with update states from 25 minutes to 47 over a 3-4 week period. NW hasn't heard any specific problems with update states, but JoeI will ask Rick. They are more focused on getting configurations finished at the moment – there are a lot.

We wonder why a system which seems to work fine in Europe is having such performance problems – did it not scale up as we expected? Are there more data? An important factor might be the NWS/RFC tendency for heavy manual interaction during their forecasting process; other agencies rely on their model output and run models in the background.

All CAT sites eagerly await the December release; perhaps many problems will disappear.

Action: none.

3. Getting data flowing at CAT-II RFCs

Edwin explained we must get data flowing at CAT-II RFCs so Deltares can test initial configurations ***before*** installing them onsite in January; worst case they can be delivered during the Migration Training/Site Support visits in February. Deltares also needs the RFCs to build up about 2 weeks of data. Time is running very short.

There are several pieces involved in the process:

JohnH's offsite data transfer script:

ABRFC and NERFC are the only RFCs sending their data to NOHRSC; NW and CN still send data directly to Deltares, but not to NOHRSC.

AB noted some recent email traffic concerning direct FTPs in and out of Southern Region offices (WFOs included). All data retrievals must in future come via LDAD from the LDM cluster at SRH. Local LDM/FTPs will be shut down in mid-January. It isn't clear where this mandate originates – possibly related to the 2010 NOAA C&A process? A subsequent conversation between ABRFC and SRH indicates that NWS will be shutting down <u>all</u> FTP within AWIPS/NOAANET. Based on conversations with SRH, ABRFC believes they might be permitted to use ssh keys or rsync as alternatives to ftp.

What does this mean for John's script? John can provide the basic script instructions, but each RFC will need to customize as they need for their own environment. Also, John still needs a location at Deltares to deliver the data but has had no response to his email; Edwin will provide John with a directory location on the Deltares server.

Deltares pointed out that CAT-IIs don't necessarily need John's script in order to get the necessary data to Deltares. Deltares could pick up the data in an ad-hoc fashion from each RFC. However it's better if RFCs get their data to NOHRSC right from the beginning; then John can take snapshots and forward them to Deltares.

Note that the security mandate regarding NOAANET shouldn't directly affect NOHRSC's system because it's not on the same network.

Prdutil to dump out mean areals from NWSRFS:

The CAT RFCs are (generally but not all) dumping out MAP, MAPX, MAT, and MAPE in SHEF from the fs5files. The CAT-IIs probably need some guidance from their buddies. It's a very simple process. NERFC, for example, added an extra line to the script for ofsde so it runs every 15-20 minutes at the same time. NERFC also ships some QINEs to Deltares. RobS agreed to write up some fairly generic instructions; individual offices can customize and determine what data they need to provide.

ofsde/chpsps to retrieve station data from the IHFS_DB:

OHD is waiting for the final directory structure. RandyR and Peter have been discussing having data flow to the 2nd MC server so there's no single point of failure; this would mean changes to ofsde (or it's wraparound script). Edwin pointed out we don't need those changes in place for initial configuration testing. Chris will get directory names from Randy or Peter, so OHD can test the end-to-end flow before sending instructions to the CAT-II.

Action: JohnH will send the RFC/NOHRSC data transfer script details to Chris
Action: RobS will write up some instructions for running prdutil and send to Chris
Action: Chris will get directory locations from Randy/Peter so OHD can test the end-to-end data flow before providing instructions to the CAT-II
Action: Chris will put together a complete package for the CAT-II RFCs to get their data flows in place.
Action: Edwin will provide JohnH with a directory location on the Deltares server to deliver data.

4. Other

ABRFC noted they sent gxsets to NERFC on Tuesday. RobS will call ABRFC next week. Anyone else on the CAT who wants gxsets should contact ABRFC.

Heads up: the CHPS paper for the AMS and FIHMC conferences is now coming together in draft form. The goal is to send it to the other CAT co-authors on Weds Dec 9 for their review by Friday Dec 18.

Action: OHD to send CHPS conference paper to the CAT on 12/9/09; CAT to provide feedback by 12/18/09.

Next meeting: Thursday December 10, 2009.