Attendees:
ABRFC – Billy Olsen, Mike Pierce
CNRFC – Rob Hartman, Chris Mayo
NERFC – David Vallee, Rob Shedd, Ron Horwood
NWRFC – Harold Opitz, Joe Intermill
NOHRSC – (absent)
Deltares – Edwin Welles
OCWWS – (absent)
OHD – Pedro Restrepo, Jon Roe, Chris Dietz

Pre-reading:
• Support Log distributed on Feb 17

1. Health check on Support Log

CNRFC reported that when they lost connection to their CHPS Postgres database they had difficulty contacting anyone in support. This was during a time when several events occurred simultaneously:
o the winter storm meant no NWSH personnel were in the office (federal government in DC area shut down);
o the NHDR system was unavailable, preventing Deltares gaining access to the RFC systems; and
o the primary support personnel (Peter, RandyR) were both on travel at the same time and were not responding to email or phone messages.

In the end, after numerous attempts CNRFC's database recovered.

This incident raised the urgency of providing 24x7 access for all support staff to RFC systems. Deltares can currently only get into an RFC's AWIPS via a VPN-NHDR-to-NHOR connection; however the NHDR is **not** a critical system and does not need to be available 24x7. HSD is currently investigating access routes to the NHOR that do not include the NHDR. NWRFC urges us to request <u>direct</u> access by Deltares to RFC systems inside AWIPS. NWRFC has already set a precedent by requesting and being granted direct access for the COE. Harold will fax a copy of the original paperwork. Foreign client access into AWIPS might be a security issue. We should also consider requesting an AWIPS firewall account for Deltares.

It also raised once again the question of who should step in when the primary support personnel are unavailable.

ChrisM would like the opportunity to discuss some Postgres-related suggestions with someone who is knowledgeable about the FEWS database. Such a person could be from Deltares or in the NWS. Ken Mack or Mark Armstrong (HSD) might be potential NWS resources; also Kevin Johnson in the NCF has a lot of database repair experience. Another possibility might be Paul Tilles in OHD. However this raises a concern from Deltares. The NWS needs to be very careful not to inadvertently degrade the FEWS database performance by tweaking parameters/settings which have been carefully tuned by Deltares for good reasons. The NWS has no DBAs – this has been a long-standing issue between OHD and AWIPS. With the advent of CHPS the problem may be exacerbated. CHPS will require experts in Postgres and in FEWS database design. The

immediate options include: Deltares trains one or more people from the NWS in FEWS/Postgres database management; and/or Deltares provides direct support.

Edwin asked that if CNRFC (or any other RFC) makes any changes to the configuration of the FEWS Postgres database, would they please document what they do. Otherwise it could make operational support very difficult. We do acknowledge that each RFC might require different database tuning/settings to accommodate specific needs. OHD must revive the database management discussion with AWIPS. Perhaps the way to go is for Deltares to provide a set of acceptable ranges for various database parameters rather than setting a single value for all RFCs.

Edwin wondered if a series of system manager conference calls with Frederik might help, starting with the CAT system managers first? It would help fill in some of the gaps for the CAT-IIs as well. ChrisM could start a list of suggestions and/or questions. Edwin will follow up.

Returning to the Support Log, NERFC will be conducting further tests with the SACCO mods to get more detail for Deltares. Is anyone else seeing the same problem? Unknown.

NERFC has noticed that the rolling barrel is still a big problem. RobS has already sent a copy of their database to Frederik but has heard nothing back. Edwin will follow up.

Action: Chris to prepare a request for direct access from Delft (and elsewhere) into AWIPS which provides a 24x7 access path to each RFC, but which is not via NHOR.
Action: Chris to open a dialogue with AWIPS concerning database support (management and repair).
Action: Edwin to provide a progress report to NERFC concerning the rolling barrel issue.
Action: Edwin to initiate a series of system manager conference calls with Frederik.
Action: CNRFC to document any changes they have made to the FEWS/Postgres database parameter settings.

2. Progress on performance tests

    ABRFC has a couple more tests to finish.
    CNRFC will begin testing next week.
    NWRFC hopes to begin testing next week.
    NERFC will do some more testing over the next few days.

    Action: none.

3. Review of Migration Training

    NERFC said the training and support visits went well. One observation: too little time was allocated to debugging all the problems with the Migration scripts. Edwin will let Micha and Willem know in time for the next class. RobS doesn't know if OHRFC or MARFC have done any migration work since the class. Buddy visits for NERFC (Tom, Alison) will be finished this week.

    CNRFC: Scott is in Minneapolis; Art isn't back in the office yet. PeteF reported that the training went well.

    Action: none.

4. Conclusions from recent chps_ops thread (CM issue) from NWRFC

The conclusion on this thread was that NWRFC experienced some kind of corruption in the configuration modules. Things are working now. However the problem stumped a lot of people for many days. NERFC reported they experienced something similar last Fall where they couldn't update for a period of time. One lesson learned was that Deltares has a single point of failure – Frederik. Another lesson learned is that RFCs really need to test out new configurations on an Offline system, to minimize (but not necessarily eliminate) the possibility of harming the live/operational system. The CAT has previously suggested using the REPs for this purpose.

Frederik was unable to recreate the problem in Delft. He needed access to the RFC system but could not get it. Another lesson learned: a path must be available 24x7, even though Deltares will not be providing 24x7 support. Part of the issue is the time zone difference – there's a 9 hour difference between NWRFC and Delft.

Action: none.

5. Sync'ing of grids to the OCs (email thread from last week)

Reference is to the value for number of days of gridded data to download to a workstation upon OC startup. Should it be set by each RFC, or should it be a single value? Options seem to be 1-10 days.

o Increasing the number of grids leads to a slower startup time, but only if the workstation you're working on is not already sync'd. If the workstation is being used routinely there should be no impact. However if the workstation has been idle for a while it'll take longer; the length of time is directly proportional to the number of grids. In a flood situation this could be crucial.
o Reducing the number of grids may lead to gaps in the grids display. However the grids are actually available on the system, it's just a display issue.

Should RFCs be allowed to customize the number of days? Disadvantage is that CHPS upgrades could wipe out the setting, so the RFC would need to reinstate.

Decision: **CAT recommends setting the number of days for grids synchronization at startup to 10**. If RFCs want/need to change then they can and will.

NERFC noted another synchronization issue: at initial startup at least 80% of the time is spent sync'ing the logs. This needs to be streamlined. Edwin will talk with Peter.

Action: Edwin to discuss with Peter the concept of streamlining log synchronization at OC startup.

6. Other

- System Manager training:
  o Deltares proposes that the class be held at a central location with remote access to the student's home RFC system. This is because some exercises require access to a full system; other exercises can be conducted on a SA system.

- o The class could be held at a CAT or CAT-II office; preferably not the NWSTC. Hardware requirements are 4-5 LXs with remote access inside the AWIPS network. CNRFC volunteered to host, and will arrange for a hotel block reservation.
  - o The CAT-II systems will need to be "cleaned up" prior to the System Manager training.
  - o Frederik has also requested that CATs forward examples of the kinds of issues they've experienced during the past year as input for CAT-II exercises.
  - o Deltares requests the class sizes be kept to a minimum. No more than 8 or 10 students for each class (9*2 CAT-II + 3 OCWWS HSD + 1 OHD + 1 NWSTC = 23). Chris will confirm that RandyR will attend; she will also look into sending someone from OHD HL.
  - o Deltares assumes 1 person per CAT RFC as assistant instructors (NERFC said they might send Jeff Ouellet; ABRFC said they would send Jeff McMurphy).
  - o Also, Frederik can only get away from Delft for one week as the FEWS main release is around that time and his participation is essential. Therefore Deltares proposes two 2 ½ - day classes in a single week. It is scheduled for the week of April 19-23.
- February patch: this patch will be small, focused on some specific sticking points such as the ESP fix, certain mods fixes, and ratings issues. Deltares expects to distribute the February patch by Feb 28 or within a few days after that. Deltares has had trouble reproducing the TSADD problem. NWRFC reported there might be a WECHNG issue – they will confirm soon.
- HIC agenda: the CATs are expected to report on status during the "CHPS Implementation Status" session. The latest version of the agenda will go out today.

Action: CAT system managers please submit sample system issues/experiences to use as example class exercises for the CAT-II students.
Action: Chris to confirm that RandyR can attend the System Mgr training in April
Action: Chris to discuss with Jon sending one OHD HL person to the System Mgr training in April
Action: CNRFC to arrange for a block of hotel room reservations for System Mgr training in April

Next meeting: Thursday March 4, 2010 (no meeting Feb 25 due to HIC meeting)