

## Minutes from CHPS Meeting Thursday December 11, 2008

### Attendees:

ABRFC – Billy Olsen, Jeff McMurphy  
CNRFC – Rob Hartman, Art Henkel, Scott Staggs, Pete Fickenscher  
NERFC – Rob Shedd, Ron Horwood  
NWRFC – Harold Opitz, Joe Intermill  
NOHRSC – John Halquist  
Deltares – Peter Gijbers  
OCWWS –  
OHD – Jon Roe, Chris Dietz, Joe Gofus

### Pre-reading:

- none

### 1. Software Acceptance testing next week in Silver Spring

RonH and JoeI have printed off the test procedures document from the wiki. It contains a draft agenda, which assumes Deltares will arrive at SSMC2 at 8:00 am to begin software installation. We will meet in 8246 to go over the plans and explain how we'll operate. By 10:00 am we expect to begin testing. Level 3 testing will test single operations one at a time, including the FEWS native TS operations as well as the OHD migrated models. Level 4 testing will test entire basin (a la operations table).

OHD proposed that we set bounds on the error between outputs being compared, e.g. anything  $\leq 1\%$  is acceptable; there will be some exceptions and we will consider these on a case-by-case basis. The group felt a fixed amount such as 1% should be scale-dependent, not the same for every test case. We will capture all results and conduct a post-analysis. RobH asked what kind of statistical analysis will be conducted; would we be able to leverage existing FEWS statistical packages? While a qualitative comparison will be the fastest way to detect failed tests, some quantitative tests must be conducted. RobH suggested generating things like mean, max, min, and RMSE. It isn't clear: a) the nature of an analysis Deltares expects to conduct; or b) the amount of analysis that can be done during the course of next week (it may have to be done the following week).

How will OHD run OFS on our development system? We won't. We will use canned data sets – these were the ones generated on Nov 19 by the CAT RFCs. The data will be ingested into FEWS and compared to the pre-existing NWSRFS files. The test document should be updated to reflect this strategy.

Status of the data transfers to Deltares: Deltares has received the ofsde output from ABRFC; they are considering implementing a receipt mechanism of some sort. We previously agreed that RFCs would be responsible for getting their MPE and SHEF data into the right directory; however if all RFCs end up doing the same thing OHD is willing to write a single

procedure. CNRFC has not used the scripts because they are concerned about possible AWIPS security policy violations. It isn't clear what those policies are (it is all communicated by word of mouth), but it was suggested that RFCs might be required to use LDAD. NWRFC doesn't use LDAD. RobH noted that CNRFC has experienced some file truncation problems when using their LDAD. Southern Region sites use rsync to move precip data to HQ, but this is accomplished inside the AWIPS firewall. Using LDAD makes the process 2-step; however RobS pointed out that one extra single line of script code could accomplish it in one step. The data does not have to reside on the REP; it can reside on the new prototype CHPS hardware or even on another box. CNRFC will script it themselves and will provide their solution to OHD. Deltares expects to need data during Migration (a short-term need); in the long term Deltares will need sample data for each new FEWS software release. The most pressing need right now is for acceptance testing next week.

As previously noted, the HEC-RAS adapter has been removed from next week's software acceptance testing because we don't have a Linux version of RAS to use. The November status report indicated HEC was to deliver this on Dec 8; since it's now Dec 11 Peter agreed to check on the status. Chris will also ask RTi. [HEC-RAS is on the critical path for CHPS BOC for both NERFC and NWRFC.] Chris reported that software acceptance testing for the HEC-RAS adapter is now expected in Silver Spring or Taunton "towards the end of January" – Chris thinks it will likely be done in conjunction with Preparation Workshop #3.

Action: Deltares to update the test document to describe how the Nov 19 data will be used in testing

Action: Peter to check with Micha and Matthijs whether they have considered conducting a statistical analysis on the results using FEWS.

Action: Peter to check with Karel whether HEC delivered a Linux-based RAS on Dec 8 as promised.

Action: Chris to ask RTi whether HEC delivered a Linux-based RAS on Dec 8 as promised.

## 2. Testing of dual screen instructions – status?

CNRFC has tested NWRFC's instructions to implement a 2-screen configuration. It works fine but is a little "funky". NERFC and ABRFC haven't tested it yet. JohnH noted that he had once been able to display IFP windows on multiple screens, so it seems to be a function of the config file, rather than the AWIPS video card. All users on a given workstation will be impacted by the configuration (can't have different configurations for different users). Note that AWIPS releases will wipe out the configuration, so offices will need to re-configure after each release. Everyone agreed that this was a valuable option to have; offices can choose individually whether or not to use it.

Action: none

## 3. No calls on Dec 18, Dec 25, or Jan 1 – next one: Jan 8

RobS suggested this might be too large of a gap between meetings. We agreed to have a (brief) meeting next week to provide the others with a status update on software acceptance

testing. Also we should aim to meet once more for a 'normal' meeting. Conclusion: we'll meet on Tuesday December 23 at 11:00 am ET.

Action: none

#### 4. Other

The meeting included a discussion of Harold's CHPS presentation this week to the Service Coordination Hydrologists (SCHs) at the NWSTC. Slides have been posted on the wiki. Harold briefed the SCHs on BOC, also on a history of FEWS (from details provided by Micha). Generally the flow of the presentation was from administrative to technical topics. Harold remarked how eager for information they were: the session lasted from 9:30am through 2:00pm. He provided them with handouts which included the colored Excel timeline (aka Gantt chart), which was marked up to highlight where CAT and non-CAT RFCs feature. A second handout was the "Calendar document" showing the sequence of events through 2011. Harold shared some thoughts with them about CHPS hardware wrt AWIPS (esp. the concern that RFCs may never receive a 3<sup>rd</sup>/Offline system); also that the QC function will remain external to CHPS for the time being, but ultimately the role of the CHPS database versus the ihfs\_db may change in future.

A recent dialogue between Harold and OHRFC prompted a brief discussion on local application access to the FEWS database. Deltares is considering introducing a driver on top of the database to make the internally compressed data available via SQL queries. However it would not work for gridded data. In any case BOC will certainly not include this capability. Harold's guidance to OHRFC was: a) we don't have technical details on FEWS database access yet; and b) it's too soon to try and upgrade local apps to communicate with the FEWS DB, because the needed functionality might already be covered by CHPS BOC.

On a related note, Jon reported that Raytheon has dropped their plans to use Hibernate on top of the ihfs\_db. Instead, existing direct SQL access will remain in place for now. Interestingly Deltares noted that they had also tried using Hibernate on top of the FEWS database but found it too complicated and eventually gave up.

Chris raised the issue of post-BOC tasks. There will be too much work for OHD to do all at once. We don't necessarily know how to prioritize various requirements, but we should attempt to at least start by capturing them and assigning a level of 'difficulty'. We already know XEFS is a high priority requirement from Gary Carter. Some other items to consider for post-BOC:

- conversion of OHD models to Java, to make them o/s independent\*
- calibration
- verification
- archive DB

\*even for trivial applications, this will require significant/robust testing. Res-J won't be easy! Perhaps this work could be out-sourced (maybe not till after FY09). Harold noted that OHD should better align its tasking with upcoming RFC service requirements; the conversion to Java would help RFCs meet their need for service backup.

Billy reminded us that BOC-II could also reveal some significant piece of work, as we haven't really begun to identify what those requirements are.

Also discussed was the mechanism by which we will prioritize the requirements. Will it be the current CAT? Some other similar group? RobH/Harold took an action to talk to Michelle about adding a discussion topic to the agenda for the next HIC meeting.

Routine monthly CHPS status briefings to the other RFCs: Jon asked whether, given the holidays, we could move the briefing to Jan 15 instead of Jan 8. We agreed we can use a distilled version of Harold's slides, to minimize the preparation effort. Aim for 30-45 minutes, with a 15-30 min Q&A session. We also agreed to stick with January 8.

**Action: RobH/Harold to get a discussion re. "Prioritization of CHPS work for post-BOC" on the next national HIC meeting agenda.**

*Note: Action items from this and all previous meetings are contained in the "ActionItems" document maintained and distributed by Chris Dietz, OHD.*

Next meetings: Thursday 12/18/08 (brief test status report); also Tuesday 12/23/08.