

## Minutes from CHPS Meeting Thursday October 23, 2008

### Attendees:

ABRFC – Billy Olsen, Mike Pierce, Jeff McMurphy, Bill McIntosh

CNRFC –

NERFC – Rob Shedd, Ron Horwood

NWRFC – Joe Intermill

NOHRSC –

Deltares – Karel Heynert

OCWWS – Mary Mullusky, Randy Rieman

OHD – Pedro Restrepo, Jon Roe, Chris Dietz, Joe Gofus

### Pre-reading:

- CAT (Rob Hartman) write-up “Gridded Inputs for the Baseline Implementation of CHPS” (undated, but sent via email on 9/26/08 to the chps\_migration list).

### 1. Hardware installations, etc. – status, next steps

NERFC, ABRFC, and NWRFC have received all prototype hardware. Believe CNRFC has received theirs, but Chris will check with RobH.

Next step is for OCWWS HSD (Randy Rieman) to practice/conduct installation at NERFC and generate a “Mod note” for the other RFCs (and for RC #11591). Trip to NERFC planned for Nov 3-5. Randy hopes to be back in time to participate in the software meeting between Deltares and OHD. Mod Note will be available for other RFCs by Nov 14.

Dec 1-3: software installation training at NERFC. Deltares to lead; RandyR will participate. Software installation instructions (written by Deltares) will be available by Dec 12.

Randy will subsequently travel around the other CAT sites conducting CHPS software installations; this assumes the hardware and o/s are already installed.

Software Acceptance will be conducted Dec 15-17 in Silver Spring. JoeI, Harold, and Ron Horwood will attend. Possible that HEC-RAS adapter will be included; Deltares needs to coordinate with Gary Brunner first. Displays may be an issue? If the HEC-RAS adapter is included in software package, Ed Capone will be present Dec 15-17. Deltares suggests that this activity should be very limited, as this will focus on side-by-side comparisons of software output and could be very boring for forecasters; should be limited to 4 people max.

The goal is to compare functionality of operations – do they do what they’re supposed to do? Inside FEWS and outside standalone? It is not necessary to conduct tests on hardware that is identical to prototype hardware. What’s involved in Acceptance Testing? Karel will develop and propose a test programme at the next CAT call.

Planning for training in January - head counts are as follows:

ABRFC – 2

CNRFC – 3

NWRFC – 4

NERFC - 2

NOHRSC – 1? (Chris to check with John)

OCWWS HSD – 2 (this includes Xiaobiao, new to the project)

OHD – 1 (Deltares plans to transfer knowledge during other engagements; may not need to include OHD)

Total (max) = 15

Deltares will send 4 people. This yields the desired 3-4 students per trainer. Since it isn't clear yet what the role of NWSTC for CHPS will be in the future, the group didn't think it necessary to include a representative from NWSTC in the head count.

What is the approach for database tuning and optimization? This is for the “central” database; archive database comes later. Some RFCs have DBAs, others do not. Experience with Raytheon is they have been very slow to respond. OHD (Paul Tilles) can help. Andy Rost at NOHRSC is an idea. Deltares has some knowledge but it would be better for NWS to tap into an internal resource.

Environment for training at NWSTC: Linux workstations. Need oxygen for XML editor; any RedHat version is fine; no Postgres because this is standalone system. Cost for oxygen is ~\$200/license/year – not much. What about AWIPS? AWIPS hasn't recognized the need for an XML editor yet, may come later. Will Hydro program fund? Could the Regions fund?

Deltares may demonstrate how to upload new configurations into a live system from Deltares wiki. Not sure if the configuration at NWSTC will permit that through various firewalls; Deltares suggested they might conduct a demonstration of upload into Deltares system. This is fairly low priority.

Summary of upcoming dates:

<b>When</b>	<b>Where</b>	<b>Who (Deltares)</b>	<b>Who (NWS)</b>	<b>What</b>
Nov 3-5	NERFC, Taunton	N/A	RandyR	Hardware practice/installation, so Randy can draft Mod Note
Nov 3-7	Silver Spring	Micha, Andre	JoeG's team	Finalize OHD software/software training
Dec 1-3	NERFC	Frederik	RandyR, Xiaobiao	Software practice/installation
Dec 8-9	NWRFC	(Remote support only)	RandyR	Software installation
Dec 11-12 <sup>1</sup>	CNRFC	(Remote support only)	RandyR	Software installation

<sup>1</sup> Check with CNRFC that dates are OK

Dec 15-17	Silver Spring	Micha, Mattijs (M-W); Andre (M-F)	JoeG's team, JoeI, Harold, RonH, EdC (only if HEC-RAS included)	Formal Software Acceptance Testing
Jan 5-9	NWSTC, Kansas City	Micha, Japp, Peter, Mattijs	CAT RFCs, OCWWS, NOHRSC, OHD (poss)	Configuration and Migration Training
Jan 12-13	ABRFC	(Remote support only)	RandyR	Software installation
Jan 29-30	TBD	TBD	CAT, OHD, OCWWS, NOHRSC	Preparation Workshop #3

- Action: Chris to follow up with CNRFC to make sure they received all their hardware
- Action: Chris to follow up with John to see if he plans to attend training in January
- Action: Karel will develop and propose a test programme for Software Acceptance Testing at the next CAT call.
- Action: Chris to respond to NWSTC/Dave Cokely re. workstation configuration requirements and final head count. Workstations must be in place by Jan 1.

## 2. MPE changes for CHPS

Referenced document was discussed at Preparation Workshop #2 in Taunton w/c Sept 29 2008. CAT recognizes that we can't meet all of those requirements in time for CHPS BOC, but what can be done?

Future goal: combine/merge GFE and MPE to handle observation data as well as forecasts. At the very least GFE and MPE should be consistent with each other, using the same AWIPS 'standard' formats. The CAT agreed in Taunton that CHPS BOC needs grib(1). Current known issues with GFE: 1. no one other than Raytheon knows what GFE in AWIPS II looks like; and 2. GFE doesn't output grib(1).

Suggested approach for BOC: change MPE to meet basic needs, do more later in a phased approach.

1. Must have MPE/DQC going down to hourly instantaneous temperature grids (CHPS will create 6-hr averages needed for the models)
2. Make sure MPE/DQC and MPE outputs are consistent with each other (Rob Shedd thinks they're not exactly the same).
3. Make sure GFE and MPE outputs are consistent with each other

There are 3 basic features for grid consistency: physical file format, map projection, and grid spacing.

Conclusion - we need to lead an activity to:

- o identify what CHPS needs and when it needs it (BOC, BOC-II, post-BOC, etc);

- identify an end-state (target) solution;
- propose a strategy to get to the target solution;
- develop a phased implementation plan consistent with the strategy;
- additionally: define a process for RFCs to figure out during their CHPS Migration whether the new inputs are “good enough”.

Could Harold and/or RobH lead this activity? Chris suggested this was an engineering activity, rather than a user requirements activity, since the referenced document has already supplied the user requirement; therefore OHD/HSEB should lead. Jon suggested Mark Glaudemans could take on this activity. Jon has already forwarded the referenced document to Mark, and will speak to him more.

If we feed grids into CHPS how will mean areals be generated? Answer: if the grids include altitude information, then FEWS can do the “cookie cutting” already. Group agreed that this was an acceptable solution.

MaryM was at the recent IWRSS meeting. What are NPVU requirements? It requires 10km Lambert conformal conic projection, grib(1). Group noted that 10km was fairly coarse; agreed that we should aim to generate the finest resolution possible (e.g., 2 ½ km for now) and then dummy up to 5km or 10km as required.

**Action: Jon to task Mark Glaudemans with developing and implementing a plan to meet the requirements specified in the referenced document, consistent with the notes from this meeting.**

### 3. Other items

Will the Migration training in January focus on any system-level topics? Depending on what we consider to be system-level... generally, no. Focus will be on how the system configuration is designed, how it works, how to develop new configurations. Some topics, such as more robust tools for troubleshooting and improved visualization, won't be available till March 2009.

What's the status of the ssh server at Deltares? Not there yet. Once it's set up, OHD will run some tests on their scripts, try out at NWRFC, and then send the scripts out to all CAT sites.

What can we expect to be included in the October software release? This release is more of a formality (deliverable), rather than a request for RFCs to assess. Questions and feedback will be more formally requested after the New Year. It is the standalone version. What about the number of different versions recently made available? RFCs don't want to keep re-loading if it's not necessary. Deltares stated that the most recent version was for OHD only, and should be ignored by the RFCs. There are many changes coming over the next year – Deltares suggested keeping them side by side rather than overwriting the current version.

We had previously agreed that subversion will be used to manage configuration files. AWIPS environment will include subversion. Deltares says it is not necessary to worry about subversion just yet – the training session in March could include a demonstration of how to use it.

RobS will be absent from the CAT calls for the next 2 weeks.

**Action: none.**

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

Next meeting: Thursday 10/30/08.