EVLA Weekly Meeting Notes

Meeting Date	2006April26
Meeting Participants	
Penticton	Amy, Brent, Dave, Donna, Mark, Peter, Ralph, Rick, Sonja, Zhang, Zoran
Socorro	Bruce, Kevin, Martin
Jodrell Bank	Bryan, Simon

Penticton

Brent Carlson
- Talked to Gary Stevens at iSine.
  - → Delivery of the fist chips (~50) should occur June 1.
  - → Once it is confirmed that the packaging is appropriate for shipping, iSine will ship the balance.
- Updated the FPGA on the Baseline Board.
  - → Re-compiled and ran simulations; forwarded a DVD to Donna for release to the web.

Action
  - → Brent to check with Morley at BMS re: delivery of boards from BMS.
- A draft of the Power Plant RFP is circulating at DRAO.
  - → To be passed on to Emerson for comment before forwarding a final version to NRAO.
  - → Should proceed to purchase this fiscal year. It will go through the bid process with PWGSC.

Peter
  - → There is a question of capacity (which is not a part of the RFP) regarding:
    - o Spare rack unit space and floor space in room if another rack is required.
- Next on the To-do list will be sorting out the power monitor control details and to write an RFS.
- Will write a HALT/HASS testing document.
- Reminder that it is the end of the month; please complete the monthly back up.

Dave Fort
- With help from Bruce, acquired the software to load EE PROM.
- Worked with Mike Revnell's files to practice talking to FORM.
  - → Getting close to producing data; need a PC/104+.

Brent
  - → Monitor control is not DRAO responsibility.

Zoran Ljusic
- Changes to the Station Board FPGA due to timing issues will most likely be transferred to Zoran from Zhang.

Action
  - → Zhang to forward library and design files and documents to Dave.
- Running simulations on the Station Board.
  - → There is a bit or re-wiring and a bug or two to fix. Cross talk is good.
    - o Long buses cause reflection in the MCB bus.
  - → It is a good tool, worth its cost.
- Need to finalize the mechanical design.
- According to the recent training session (SIEMC JumpStart), we are doing a good job.
  - → The clamping diode could be a source of a problem.

- → We have a good system for debugging boards.
- Station Board Reviews that are pending scheduling are (not necessarily in this order):
  - → Station Board design changes.
  - → Manufacturer's package.
  - → Mechanical design and heat sink design review.

Zhang Heng
- Worked on the computer bus with Bruce.
- Worked on the redesign of the Station Data Fanout Board.
- Worked on the equalizer for testing with Mark; which has a priority over the test rack.
  - → Still one outstanding issue being worked on by Bruce.

Sonja Vrcic
- Worked on the Station Board GUIs.
- Did some cleanup of the FPGA GUI code.
- Reviewed the schema as defined by Bruce to ensure matching between CMIB and GUI software.
  - → Now able to connect to the CMIB in Socorro.
  - → Will email Bruce with results.

Action
  - → Bruce to let Sonja know when changes to the schema occur.
- Discussed Station Board software issues with Dave F.
  - → To discuss in detail with Socorro immediately following this meeting.

Peter
- There is a major issue with the ALMA Science Data Model (ASDM).
  - → Need to define whether or not to use ASDM.
  - → Brent is remaining in contact with Michael Rupen re: ASDM to support EVLA.
  - → Will probably go with some kind of internal pseudo ASDM.
  - → No final decision has been made; still some issues:
    - o Scaling, defining spectral windows, phase bins, etc.
  - → There is a reference re: ASDM in the minutes from the recent face-to-face meeting in Socorro.

Brent
  - → In the interim will resurrect Sonja's Output Data Format document for testing and building the code.

Action
  - → Sonja to update the Output Data Format document.

Sonja
  - → There is not enough detail re: backend.

Peter
  - → This topic will arise at the EVLA Advisory Board meeting scheduled for May.

Action
- Donna to post all of the documents from the face-to-face meeting on the WIDAR website.

Rick Smegal
- Running filter simulations.
  - → Will submit a report incorporating results.
  - → Need to establish confidence limits.
- Rick will be completed his current contract May 9.

Action
  - → Donna to schedule a review for May 4 or 5.

Ralph Webber
- Kitting the parts for shipping to BMS is complete except for the Vicor power supplies.

2006April26

Brent	→ We don't want to hold up BMS. Send everything now then send the Vicor parts later.
	• The Station Board heatsink design is complete.
	• Worked on the mechanical design for the Station Board.
	→ Need a custom front panel.
	→ Looking at blank boards with ejectors for ~ $100/each.
	→ Should be finished soon.
Mark Halman	• Worked on assembling the 12U test beds.
	• Prepared the screened room.
	→ Added more benches: still need to install and test grounds on the benches.
	• Made an adapter for coaxial for the wafers.
	• Helped Ev re: shielding for the encoders for the mill.
Peter Dewdney	• Getting ready to attend the EVLA Advisory Board meeting and NSF Review in Socorro.
	→ Collecting information for presentation.
	→ Would like a group photo. Everyone assemble outside shielded lab after the meeting.
Action	→ Socorro people to put together some photos that Peter can use.
Action	→ Sonja to pass on her photos of the new lab.
Amy Fink	• Finished updating the parts sheet and Mentor dBase.
	→ BOMs are now generated in the correct format.
Action	→ Amy to forward part numbers to Zhang and Zoran.
	→ Created a new part number spreadsheet: it is posted on the WIDAR website (Management link).
Peter	• Will use the cash flow file as of January 2006 and the schedule as of March 2006 for his presentation to the EVLA Advisory Board.
Brent	• Reminder of the Action Item arising from the April Monthly Issues Meeting re: ordering 10 spares of chips, FPGAs, memories, etc.
Brent	• Tom L. has indicated that EVLA can use the old lab in the basement of the 1959 building for storing parts.
	→ The room will need to be prepared for January 2007 occupancy. This task is unassigned.
Action	→ Brent to talk with Tom L. re: room requirements (possible bench removal, purchase of cabinets, etc.).
Peter	• Peter would like some kind of sketch of installation in Socorro.
Action	→ Brent to provide a preliminary plan, and to include an estimate of NRAO people hours requirement.
Brent	• Waiting for search capability for documents on the WIDAR website.
Action	→ Donna to count the number of documents currently posted.

Bruce Rowen	• Should be completed the Station Board State Counts and Power Measurement task by Friday.
	→ Getting good performance re: data display.
	• Working on pre-contract pcb prototype testing.
	→ Encountered an issue with lockup while attempting to re-program the time-code chip when the board is running.
	→ The CMIB processor hangs up; still investigating by disabling the interrupts
Kevin Ryan	• PCMC GUI is complete.
	• Working on the Baseline Board Block Diagram GUI.
	→ Adding a panel for each FPGA that will load (writing to registry) configurations for all FPGAs at one time.
Brent	→ We want to be able to re-configure the correlator on the fly, within seconds.
Sonja	→ Does the GUI software read the files?
Kevin	→ No, they are moved to the server side. The CMIB side reads the files.
Brent	→ May want to have 1 config file for multiple chips.
Kevin	→ Buffer size is the limiting factor.
Sonja	→ There should be 1 message/board.
Kevin	→ Everything is on the same CMIB, with 1 big message, rather than 1 message for each chip.
Brent	→ Need to be efficient with the structure and keep an eye on performance.
Dave F.	→ Re: queuing xml code….could translate then store locally.
Brent	→ We want 1 xml file that applies to all actions, LTLs, etc.
Sonja	→ Maybe the xml parser is slow.
Brent	→ We will conduct performance tests.
Peter	→ Need to bypass NSF for efficiency.
Martin Pokorny	• The following is a report of work from the last two weeks.
	• Worked on CBE cleanup; re-naming, re-formatting, etc.
	• Put code into the config and build system.
	→ Can now re-compile if machines are different.
	• Working on CV output in testing framework for CV code.
	→ It is now done automatically or can be run on a single host .
	• Looking at possible changes to the correlator simulator.
Brent	• Is there any news re: Tom Morgan being contracted to help with testing?
	→ That is still up in the air. So far, Martin has declined his help at Socorro. But is reserving the possibility of assistance at DRAO.
	• Currently, the plan is for Martin to visit DRAO the week of May 22.
	→ A tentative agenda will be ready within the week.

2006April26