

Notes on Production Workshop, 13-15 Nov 2007

The workshop panel, consisting of Adrian Russell NA ALMA Project Manager, and Tony Beasley, ALMA Project Manager in the Joint ALMA Office (JAO), was impressed by the results to date.

Band 6 Action Items:

Personnel

The Band 6 Cartridge group was instructed to add two more people (these are already authorized from ACA funding):

- A technician for CTS and documentation and
- an additional programmer.

In addition, the Project wants to stockpile the OMTs, that is, produce them as quickly as possible. Consequently, we have been authorized to add a technician for OMT production.

Band 6 Cross-pol problems

Both Bands 9 and 7 have relaxed cross-pol isolation specs to 17 dB, and Tony Beasley mentioned that we could simply file to change specs. I said that the Band 6 case is a bit different, because TICRA predicted the low cross-pol for Bands 7 and 9, but they predicted 30+ dB in our case. At that point, Tony said that we should continue our investigation, but that we should not let the low cross-pol slow our schedule.

Bias boards

Rev D boards – Adrian authorized a small production run prior to CDR so that the project is not delayed by boards.

Band 4

1st pre-production unit delivery is 2nd quarter 2008. SIS devices – production feasibility still being studied. They now have one or two wafers, but yield is “not so good”.

Band 7

The project accepts that Band seven will not increase their production rate until after they have build their second test set, and they will start late. Consequently, some receivers will most likely be shipped without Band 7 cartridges.

Band 8

2 days assembly per cartridge
3 weeks testing per cartridge

Band 10

Unsurprisingly, mixer performance is a problem. NAOJ needs to design a new chip. The existing design was only to confirm that the MgO waveguide interface works.

- PDR: Feb 2008
- CDR: Jul 2010
- First Unit: July 2009

NaFEIC:

John Webber first said that first receiver will be shipped out by Jan 2008.

There was lengthy discussion concerning how to increase throughput of the FEIC. The latest schedule shows cryostat throughput at 24 working days (39 calendar days) to test all 6 bands. This assumes 2nd tilt table is equipped for noise temperature and image rejection measurements.

Gie Han argued that there's no need to equip the second tilt table with noise temperature and image rejection measurements. Adrian Russell said that FE must develop a consensus about how to increase throughput before they go to the ALMA board to ask for more money.

EuFEIC:

Ferdinand Patt will move to England to support the RAL effort as an ESO employee.

East Asia Integration Center:

This work will be contracted to Aeronautical Research Labs in Taiwan:

- Lab completed in 2007
- 80% of commercially available equipment ordered
- Wish to start in Jan 2008, but Tony said they have no receivers to ship there

Anticipated Manpower (FTEs)

- 10 – Lab
- 2 – Admin
- 1 – QA
- 1 – management

IPS

Adrian asked all groups to confirm their “need” dates, which for Band 6 is:

- Cold Cartridge body deliveries
- WCAs
- Bias supplies
- OMTs