

12K MOSAIC Instrument IPT Minutes
September 25, 2007

Attendees: Robert Quimby, Arne Rau, Eran Ofek, Roger Smith, Hal Petrie

1. Eran suggested trying to reduce one chip of data from QUEST at IPAC for photometric analysis. This would be relative photometry and would give a benchmark for the types of problems that might be encountered with MOSAIC.

- **Arne will ask Stefan Ballmer for data to be provided to Dave Ciardi (by 10/9)**

2. Roger discussed his thoughts on baffling and said that he had contacted someone at SNAP who specializes in these issues. Roger proposes that we provide the optical description when it is put together for the field flattener design. Probably a physical description (CAD model?) would be required to address adequacy of existing baffling. The analysis would be free.

- **Rich Dekany will liaise with Roger's SNAP contact when a new optical prescription is available (by 12/5)**

3. The first go-around on profilometry will take place Oct 3 at OCIW. Petrie and Smith are working on a hardware concept to remove the dewar, protect the cold straps, and provide a base to support the camera head so the focal plane can be measured for height variations. The profilometer available has 0.5 micron resolution, but Carnegie does not want us to change the basic setup since it is in periodic use for one of their projects. It is unknown if testing warm, as we will have to do, will properly reflect the shape of the focal plane when it is cold. If the initial results do not agree with the U. of Hawaii focus data, we may have to integrate a coldhead into the camera and test again later. The potential risks of dismantling the focal plane were discussed and the issue of spare chips was raised.

- **Roger will check around to see if anyone has spare chips.** Testing can take place Oct 3 to Oct 5 before Roger has to leave town.

4. Eran has asked Ashish Mahabel for the best image from a single QUEST chip to analyze the image quality. Peter Nugent had reported a floor of 1.8 arcsec for best images from QUEST, and there is suspicion this may have been a multichip average.

5. Eran mentioned that he was working on a list of all action items which Roger had suggested. Eran will collaborate with Arne on this.

6. Roger reported that he and Gustavo were taking a first look at readout times. However, this will not get very deep at this time since Roger has SNAP obligations and Gustavo is involved with Triple Spec. Roger will concentrate on profilometry.

7. The possible involvement of Vertex RSI in improving the telescope point and tracking was discussed. Petrie was of the opinion that sufficient hooks were in the software for John Henning to apply his pointing correction expertise. Whether or not RSI involvement is needed needs to be determined.

8. It was reported that McKenna has started data logging of the encoders and encoder errors. An optoisolator is on order to enable getting other inputs as well.

9. Roger described his concept of the cold head installation and related cabling/piping.

10. With regard to McKenna's observation that dome movement affects telescope tracking, Eran suggested that since only short exposures will be used, dome movement be limited to CCD readout.

11. Roger reported that the University of Bonn is still interested in making a shutter for us, but cannot deliver until 2009. Roger intends reopening the discussion when his contact is done travelling. Petrie reported that Mike Carr of Sci-In.com is interested in making a shutter for us. He has a 7.5 inch one that is almost big enough and is willing to make a larger one.

- **Hal will coordinate discussions with shutter vendors.**

12. Eran and Arne reported that there is consensus on having a simple 2 filter stage rather than the baseline single manually replaceable filter. Eran says that Shri has blessed this concept.

- **Roger will inquire about a 2nd stage from Bonn. Hal will consider similar queries to Carr (by 10/16).**

13. There will be a visit from Wayne Rosing this Friday to look at the CFH12K which he purchased and donated to Caltech. Roger will conduct the tour. Andrew Pickles of Las Cumbres may also be along.