Fabrication and assembly of the PCU has been completed except for the mounting of the polarization optics. Unfortunately, Meadowlark Optics informed us that the fabrication of the polarization optics has been delayed and is not expected to be complete until 23 Sept. Interactive LabView software has been finished which can rotate and translate the PCU mechanisms. The laptop computer which runs the software is ready to be shipped with the PCU. Firewall and account issues were solved, and Roger Chevalier of Lockheed can now control the PCU remotely.

Work continues on the development of software for the polarimetric calibration of HMI with the PCU. Current work involves reducing the number of observations necessary for polarization calibration. Observing sequences A, B and C have been coded into the calibration reduction routine.

Work on simulating the HMI vector magnetic field measurements is nearing completion. The current task involves estimating to what extend the accuracy of the inferred magnetic field vector improves by averaging the observed data. Initial results indicate that for 10 minute averages, the solar p-mode induced crosstalk is no longer the dominant noise source, and the main source of error is the intrinsic/photon noise. This appears to be independent of the modulation scheme adopted for the observations.

A. Norton presented the HMI vector field capabilities and observing/calibration issues at talks at the National Solar Observatories in both Sac Peak and Tucson. S. Tomczyk presented a poster for J. Borrero on HMI vector magnetic field measurement at the "Chromospheric and Coronal Magnetic Fields" meeting in Lindau.

Steven Tomczyk  
HAO/NCAR  
1850 Table Mesa Dr.  
Boulder, CO 80307  
303-497-1579  
fax: 303-497-1589  
tomczyk@ucar.edu