**HET Users’ Committee meeting 2019 August 22**

Attending: W. Cochran, R. Ciardullo, S. Finkelstein, K. Gebhardt, G. Hill, U. Hopp, W. Kollatschny, H. Lee, P. MacQueen, S. Mahadevan, M. Shetrone, J. Wright, G. Zeimann

Absent: none

**Users’ Committee Charter:** The draft charter has undergone some revisions by a small committee of HET Board members and has been submitted to the Board for approval. In the interim, the Users’ Committee will continue to operate under the draft charter.

**Reports on HET status from ex-officio members:**

* **HPF:** (Mahadevan): HPF has been in regular operation for user programs. The HPF team has been processing all of the data through its pipeline as a courtesy to the users, with June and July data to be released soon. There was a recent 2-day failure of the laser comb which was quickly resolved. At some time within the next year there will probably need to be some down time to repair some small vacuum line leaks and pump down the instrument again. There have been some instrument temperature drifts which the calibration procedure has mostly removed. But improvements are needed in this process, and all existing data will need to be re-reduced when an appropriate algorithm has been developed and implemented. Longterm monitoring of stable stars for calibration is currently being done through HPF engineering requests to the Board.
* **VIRUS (Hill & MacQueen):** There are now 53 VIRUS units installed on the telescope, and the rate of production of new units is good. The new units are better than average, with very good CCDs and ~20% higher throughput. The target for all units being installed is now April 2020. The Users’ Committee extends huge congratulations to Phillip MacQueen and his team for their accomplishments.

**HRS Phased Implementation:** **MacQueen** discussed his current thoughts of a phased implementation and deployment of the upgraded HRS instrument. Several parts of the new HRS already exist (e.g. VPH grating cross disperses, many of the fibers), while some other critical systems (e.g. image slicers) have not yet been built. The phased deployment will be significantly constrained by the cash-flow and the availability of people. Phillip will generate a list of possible early-deployment modes by late September. The Users’ Committee members will then circulate this list to their institutional HET users (and potential new users!) and gather their feedback. We need to measure the level of demand for the different possible modes, and to understand the science that is enabled. The Users’ Committee will discuss these findings at a meeting in November and report these results to the Board in December.

**Image Quality:** The new optics hardware appears to be working close-to or at the specifications, but the actual delivered image quality is worse than expected. We do not fully understand the reasons for this. The Users’ Committee needs to get input for science improvements that would result for going from 1.8" to 1.4" (or 1.5 or 1.3") average image quality. The most obvious science improvement would be an increase in signal/noise for a given observation. The HET instrument scientists will provide this information to the U.C. by September 5 for VIRUS (Karl), LRS2 (Hanshin), and HPF (Suvrath).

***Action Items:***

* MacQueen to compile a list of the HRS modes and distribute these to the UC by late September. Each UC institutional representative will then poll the user community to obtain their input on the relative scientific priorities.
* HET instrument scientists Gebhardt, Lee and Mahadevan will provide information on improvements to attained S/N that would result from improving the median image quality to 1.5” and to 1.3”.