

HET Users Committee

Meeting Minutes 2021May 24

Members Present: W. Cochran, S. Finkelstein, C. Morley, D. Fox, M. Fabricius, W. Kollatschny, G. Zeimann, S. Janowiecki, P. MacQueen, G. Hill, H. Lee, N. Drory (guest)

This meeting of the HET Users Committee started with discussions of HET instrument, operations and support software status:

- LRS2 is in regular use without and significant problems. The reduction process is robust. There has been no recent engineering time scheduled.
- VIRUS – There are now 71 operational units with a total of 270 amplifiers (out of 284) producing good data. There are more *installed* units than *functioning* units due to continued problems with some multiplexer channels not working well. This problem is due to damaged internal cables and is actively being addressed. New CCDs are now being produced for both VIRUS and VIRUS2, and the full VIRUS complement of 78 units will be achieved soon. The VIRUS vacuum system is being upgraded with newly purchased ion pumps. These will allow constant CCD temperature to be maintained.
- HPF – no report.
- Operations – The 2021-1 end of trimester report and the 2021-2 beginning of trimester reports have been issued and are available to the users on the HET web site. The deficit of observing time for U. Texas has been decreased, and now stands at about 37 hours. Plans are to continue to decrease this deficit during 2021-2. HET operations are now getting close to hitting the expected number of available science hours. This improvement came from averaging the historical weather with the predictions for a given trimester.
- Software – Data reduction software is mostly unchanged over the past several months.
 - There has been a steady flow of requests for more advanced and specialized reductions, mostly for LRS2.
 - TACC is in the middle of reworking their data file systems, and our HET data reductions are adjusting accordingly.
 - TACC has retired the wrangler computer, and we are now using stampede2. This has resulted in reductions regularly finishing somewhat later in the day.
 - Work is underway to produce a library of telluric spectra for HPF users.
 - Parallel VIRUS observations are now being reduced. About 2/3 have been run through the pipeline. The HET Users Committee will want to work the the HET parallel science working group in order to get these new auxiliary data out to the user community.

Scheduling and Planning Software: Niv Drory joined the HET UC meeting to give an update on the status of the development of the new HET scheduling and planning software that will replace OCD and HTOPX. He showed the UC the presentation that he was preparing for the June 2021 HET Board meeting. The plan is to implement the new software in three phases:

1. automation of the execution of a human-built observing schedule
2. auto-scheduling for some queue targets (VIRUS first, then LRS2 & HPF)

3. auto-scheduling for all queue targets.

The immediate goal is to deploy Phase 1 by the end of June 2021. Software testing on the telescope is now underway. Work on Phase 2 will begin after deployment of Phase 1. Target date for implementation of Phase 2 is spring 2022. Then work will progress to Phase 3 with the goal to finish deployment at the end of 2022.

The HET Users Committee has designated Caroline Morley, Suvrath Mahadevan and Gary Hill as their liaisons with Niv Drory's group on this project. This group met with Niv Drory on 12 May 2021 and reported on this meeting to the UC. The UC representatives recognize their primary task is ensuring that the special needs of users (such as needing to specify a particular phase coverage of periodic phenomena, or to optimize observations of synoptic targets) are built into the project specifications from the beginning and not added as a retro-fit at the end.

The HET UC will continue to invite Niv Drory to update the committee on the project status at the regular UC meetings.