Chandra Users Committee Meeting Report
May 12, 2022

Meeting Summary:

Pat Slane gave a Director's Report, including a summary of the status of the mission, a description of new anomalies, senior review activities, and progress addressing past CUC requests and recommendations from the Time-Domain Working Group (TDWG). Almost all systems on Chandra are operating nominally, with the exception of the HRC, which experienced a side-B fault anomaly in February, resulting in the present shutdown of the HRC. Dan Patnaude reported on the details of the anomaly and the future actions being considered by the CXC to try and bring the HRC back online. The leading option is to attempt to swap to the side-A electronics, which were taken offline a couple of years ago due to an electronics anomaly.

Given the uncertainty of the future of the HRC, the upcoming proposal review will treat HRC-related science under the assumption that the HRC will be operational during the next cycle. If the HRC is not available during the cycle, then some extra Chandra time may be available. Under such circumstances, the CXC is considering allowing the PI's of the HRC observations who want to do their observations with ACIS the opportunity to make the case that ACIS can do the science, as presented in their original proposals. *The CUC agrees with this approach, if such circumstances arise.*

As per the recommendations of the CUC and TDWG, the Senior Review proposal included requests for new hires to assist with scheduling and support subsystems (along with requests to adjust salaries for inflation). Additional funding was requested for a Chandra student initiative, a time-domain initiative, and inflation-adjustment increases for GO support. The CXC is awaiting results of the Senior Review.

The TDWG recommendations were reviewed, along with actions taken by the CXC. These actions include consideration of handling GW sources differently from other transients, warning proposers and reviewers to not give advantages to making data available immediately, establishing workshops within meetings (like the AAS) on time-domain topics, and keeping the DDT program flexible and vibrant. The CXC also plans to recommend to users receiving new data to search their data for transients and report them appropriately. *The CUC reviewed these actions and were supportive of the CXC's efforts. The CUC reiterates its past recommendation to provide an automated search of new data for transients. While the committee understands that addressing this specific recommendation currently is dependent on the results of the Senior review, we recommend that in the interim until such funding is made available, that instructions are relayed to proposers on how to go about identifying and reporting transients in their data. This could be in the form of a data analysis thread in CIAO and/or clear step-by-step instructions to PIs receiving new data.*

Paul Green provided a report from the Chandra Director's Office, summarizing of Chandra Cycle 24 proposal statistics and plans for the upcoming peer review process. As per the CUC recommendations, a resource cost calculator tool was introduced in this proposal call, allowing users to be more aware of their program resource cost allocations. Starting in Cycle 24, the exclusive use period will drop from 1 yr to 6 months for most categories (GO, TOO, LP/VLP, and GTO). There was some decrease in the number of GO proposals this cycle compared to the previous cycle (following long-term trends), but oversubscription numbers have remained roughly constant. The upcoming peer review will remain dual anonymous and will be conducted remotely through Zoom and Slack. *The CUC discussed the proposal formatting, and asked why proposals require reference sections to be within the page limits. The committee suggests the CXC consider the merits of allowing the reference section to not be included in the page limits, so that users can include proper citations in their proposals without worrying about their impact on space.*

With the successful launch of JWST, efforts to create a joint Chandra/JWST program through the exchange of time allocations is underway. The CXC discussed a concept in which the time exchanged would be consistent with the level of exchange currently being implemented for the joint Chandra/HST program. *The CUC fully supports these efforts.*

Additional CUC Discussions: At the request of a user, the CUC discussed the possibility of the CXC implementing the development of a point-source cataloging/analysis tool or instructional thread for creating similar products to those produced by ACIS Extract (AE; http://personal.psu.edu/psb6/TARA/AE.html). AE is an IDL tool that runs CIAO, MARX, and XSPEC scripts to take point-source lists and perform complex analysis tasks (PSF modeling, source deblending, spectral fitting, and light curve variability assessments). Core members of AE's development team have announced forthcoming retirement, leading to concern about AE's long-term maintenance. The CUC agreed that the data products afforded by the AE procedures are useful and it would be helpful to have some CXC tool or thread description for carrying out these tasks that can be run in the `python` environment, consistent with future CIAO updates. *The CUC requests that the CXC review the possibilities of creating a tool or thread recommending procedures equivalent to those performed by AE.*

Kristin Madsen was introduced as the new CUC chair, and she will be leading the CUC starting Fall 2022. The committee revisited the format of future CUC meetings, and expressed interest in attempting a hybrid meetings in the future, if pandemic conditions were favorable.