Chandra Users Committee Report

Committee Telecon of April 12, 2016

Preamble

The CUC very much appreciated the interim reports from Drs. Prestwich and Evans on the proposals submitted in the latest cycle (and other highlights) and the progress on construction of the source catalog, respectively. We commend them and the CXC staff for the efforts in these areas. Below we summarize the main points of the reports and give our reactions and recommendations.

Cycle 18 Proposal Statistics

New procedures were implemented during Cycle 18, as discussed in September 2015 Meeting. These include changing the boundary between GO and LP programs to 400 ks, a category of Joint Contingent Large proposals where time is conditionally approved pending approval by other observatories, and other more specific changes. As a result of the change in the boundary between GO and LP proposals, the number of LPs has decreased but the LP oversubscription remains high. There is still bunching at the LP boundary because proposers engineer their requests to place the proposals in the category where they feel they can compete most favorably.

Recommendations:

1. The CUC feels that these are useful changes and recommends continuing these policies and studying their outcome. The tuning of time requests by the proposers (hence bunching of proposals at the GO/LP boundary) is very difficult to avoid since proposers will tend to adjust their proposal strategy in an effort to maximize their chances of success. The policy of accepting Joint Contingent Large was endorsed by the CUC in the past. We are now eager to find out if this measure makes the process of putting together multi-observatory programs smoother and more efficient.

CXC Response:

We thank the CUC for their feedback regarding JCLPs and the new LP boundary. We will continue to monitor the outcome of these changes and report back to the CUC in the fall.

Continuing Work on the Source Catalog

The production of version 2 of the catalog is moving along at a steady pace. The original production run started in April 2015. Some issues were identified by the catalog team after production was running for a few months, e.g., erroneous source positions and confusion between closely separated sources, especially when their brightness ratios differ substantially from unity. Such issues show up in only a few percent of the sources. Production was halted temporarily while the newly discovered issues were evaluated. The issues have now been

resolved by refining the software and by instituting additional quality assurance (QA) review. Production was restarted using the updated pipelines in March 2016.

It is anticipated that version 2 of the catalog will be released to the archive in early fall 2016. The presentation of the new catalog to the 2016 Senior Review by the CSC was met with a very positive reaction. Usage statistics of the currently available version of the catalog (release 1.1, 2010 August) indicate that the community is making considerable use of it.

Recommendations:

1. The CUC appreciates the effort that the catalog team is putting into this important task. We feel that it is imperative to maintain this level of effort, perhaps even increase it, until the catalog is completed and released to the community. We believe that we can ill afford any delays past the anticipated release time of early fall 2016. The community has been waiting for this catalog for quite a while and some teams seem to be losing faith and proceeding with their own analysis of archival data and construction of their own catalogs for some uses. An example was recently reported in a preprint available at http://arxiv.org/abs/1603.08353. If the catalog team can find a way to accelerate their progress even further that would be extremely helpful.
2. On the subject of gauging the usage of catalog products by the community, we recommend exploring additional metrics, beyond usage statistics, to measure success of the catalog effort and the utility of the catalog for the community. Perhaps one can track citations of the use of the catalog in the literature and/or find a way to track the usage of the catalog for other activities, such as planning new observations.

CXC Response:

We appreciate the CUC's endorsement of the Chandra Source Catalog. We believe that version 2 of the CSC is a robust product that will have a lasting impact for many years. We will continue effort on the CSC at the highest priority.