

CUC Report — 2026 May 06

CUC Members

Remote:

David Pooley (Chair, end of term on CUC)

Vallia Antoniou

Marcella Brusa (end of term on CUC)

Adi Foord

Sebastian Heinz

Frits Paerels

Tea Temim (end of term on CUC)

Daniel Wang

Andreas Zezas

Not attending:

Yvette Cendes

Attending during the introduction:

Megan Donahue (incoming CUC chair)

Craig Heinke (incoming CUC member)

Mike Koss (incoming CUC member)

Meeting Summary

The Chandra Users Committee (CUC) meeting was held remotely on 2026 May 6. One committee member was unable to attend. The agenda is given below.

Schedule

11:00 Welcome

Pat Slane

11:10 Introductory Remarks

Thomas Connor

11:30 CDO Report & Peer Review

Rodolfo Montez Jr.

12:15 Director's Report

Pat Slane

1:15 CUC Discussion

Dave Pooley

1:45 Concluding Remarks

Thomas Connor

Executive Summary of Discussion and Recommendations

As is usual for the spring CUC meeting, the presentations focused on proposal statistics and logistics, CDO activities, and the Director's report. The proposal statistics made clear that **global interest in *Chandra* science is as strong as ever.**

The distributed peer review, now in its second year, was a subject of extended discussion. As several CUC members have noted, there is concern that the lack of interaction among reviewers will lead to less thorough reviews and provide less effective examples for younger scientists on how to conduct a review. A few potential mechanisms to resolve strong disagreements between first-round reviews were brainstormed by CUC and CDO during the question and answer period, but their precise implementation needs further study. It is also unclear whether such a mechanism is in keeping with the idea of a distributed review. **The CUC recommends that the CDO examine both the efficacy and the practicality of implementing such an additional step in the review process and report back to the CUC.** In addition, the review form lists four quantitative scoring categories, but the relative

weightings of these categories are unclear to both reviewers and proposers; **the CUC recommends clarifying the proposal weighting scheme for future reviews and clearly communicating this to proposers and reviewers.**

The past few years of potentially catastrophic budget cuts have highlighted the importance of continued advocacy for X-ray astronomy in general and *Chandra* in particular. There is now a line item for *Chandra* in the federal budget, and **it is very important that the community continue to emphasize Chandra's importance to its elected representatives, which the CUC will do its best to facilitate.** Last year, the CUC made practical information available, such as talking points, email addresses, and template letters, and it is doing something similar this year. The *Chandra* budget has not been restored to its previous level and is currently ~15% less than before. **The current *Chandra* budget represents a “minimum cost mission” and will result in a loss of support and services that users have become accustomed to unless that budget shortfall is restored.**

Looking forward, there will soon be an X-ray flagship mission concept study, and a crucial component of its success will be consensus and support in the community. The CUC will strive to act as an important bridge between the various parts of the X-ray community, our current X-ray flagship (*Chandra*), and the concept study for our future flagship.

Introduction and Opening Remarks

Thomas Connor opened the meeting, welcoming three new committee members whose terms began after this CUC meeting ended: Megan Donahue (incoming Chair), Craig Heinke, and Michael Koss. For three members, this was their last meeting: David Pooley (Chair), Marcella Brusa, and Tea Temim. The new members left the meeting after introductions.

Antonella Fruscione has transitioned from her duties in the Chandra Director's Office and has taken over leadership of the Science Data Systems team. Thomas Connor is now organizing the CUC meetings. Everyone expressed their gratitude to Antonella and wished her all the best. Everyone expressed their gratitude to Dave, Marcella, and Tea.

We took a moment to mark and reflect on the passing of Martin Weisskopf on May 2, 2026. We all owe him an enormous debt of gratitude for having figured out the cosmic Scrabble that was the AXAF project and helping us to solve the subsequent Chandra crossword.

Detailed Summaries and Reports on Presentations

CXC Director's Office Activities — Rodolfo (Rudy) Montez, Jr.

Rodolfo Montez provided an overview of activities in the CDO.

The deadline for Cycle 28 proposals was March 18, 2026, and the CXC is in the process of conducting the peer review. The review format is the new 'distributed review', in which proposals are reviewed and graded 'asynchronously' via web forms. The first phase of the review runs from March 30 to May 20. A remote synchronous panel (via Zoom or something similar) will be held June 22-26 to review ToO and Big Project proposals. The CUC members discussed several drawbacks of the distributed review format.

The most widely shared concern was the lack of personal interaction among the reviewers, which we feel affects the depth and thoroughness of the discussion; synchronous interaction is also an effective way to introduce younger scientists to the process. Rudy pointed out that the large number of individual reviews each

proposal receives compensates to some extent for that, and it also mitigates randomness and the possible effects of inexperience among new reviewers. He also reported on a series of analyses conducted on the review scores. Proposals were organized in traditional subject-driven virtual panels, and the evolution of grades between the first and second round review in each panel was tracked. The statistics on grade evolution were similar to those from a sample taken from previous reviews, with in-person, Panel-based reviews (70% of the reviewers changed at least one grade). The CXC used a 'reviewer uncertainty' metric (based on grade comparisons); this metric improved, but only slightly, between rounds 1 and 2.

A discussion followed regarding the **weighting among the four categories: scientific merit, use of Chandra, the technical review, and the clarity of writing** (the clarity of writing is currently de-emphasized), but no clear suggestions emerged.

There was a discussion on suggestions for practical improvement. **Making the discussion more 'interactive' would help the perceived lack of back-and-forth argument** imposed by the 2-round, asynchronous format. The simplest (though not easily turned into practice- a large amount of work, issues with all readers having to have Google accounts) would be to record all discussion on a Google doc, one for each proposal. **But at least it would be important to have a mechanism for resolving strong, opposing views that remain or emerge in Round 2.** The CXC (Pat) says it will look into that, since this was a widely shared worry. Rudy suggested that it might be possible to integrate a process for passing comments on proposals into the DPR web interface.

The CUC has a **specific practical request for functionality in the Proposal System**: an option to delete lists of targets in one operation, instead of (nerve-wracking at 5 minutes to deadline) sequential manual removal.

The statistics of Cycle 28: 300 proposals (299 in Cycle 27); one proposal was withdrawn after its team received exposure time on another observatory, which made the Chandra proposal redundant, and another was withdrawn because it was submitted as a Theory proposal, which is no longer solicited. There was an increase in the number of Large Projects and Very Large Projects (25 to 32, and 9 to 11, respectively, between Cycles 27 and 28). The number of proposals between the very first cycle, and Cycle 28, has declined from about 800, to 300; but the oversubscription factor (which is the scientifically relevant quantity here) has remained steady, this Cycle at 4.8, almost identical to what it was for Cycle 1. ***The interest in the worldwide astronomical community for observations with Chandra is as strong as it ever was.*** The oversubscription rate for the VLPs fluctuates a lot, with a spectacular factor 17.7 in Cycle 28 (but it fluctuates between 5 and 18).

Rudy noted that CDO confirmed with NASA that theory and archive proposal submissions will be handled through ATP and ADAP in response to CUC request.

A new call for Chandra Cool Targets is in preparation. This is a list of potential targets that are strategically spread around the sky that allows Chandra to take advantage of needed cooling-down time for the instruments, when no suitable scheduled target is available to satisfy that need. This kind of observation now potentially takes up to 1 Msec per Cycle. The list of targets needs to be updated (it dates back to 2018); the parameters for these cooling observations have also changed.

The CUC expressed its gratitude to Rudy for the hard work put into implementing the new DPR.

Director's Report — Pat Slane

Pat Slane provided the CUC with the Director's overview.

The Observatory is functioning nominally, with the exception of HRC-S. The current limiter on the H/V supply tripped.

As we all know, the budget for FY26 now (for the first time) **contains a *Chandra* line item**: an amount of “not less than \$63M” has been set aside. This will fund the ‘Minimum Cost Mission + HRC’; it funds the Guest Observer program with \$10.5M and **will result in a reduction or loss of support and services for Chandra users** (e.g., see slide 12 from previous Director’s presentation to CUC). Chandra Archival and Theory proposals are now accepted by the NASA ADAP and ATP programs (they were no longer eligible for funding through the CXC due to financial constraints). The transition to the Minimum Cost Mission, with operating HRC, will likely be occurring in Calendar 2027. As for FY27, the President’s Budget Request does not mention Chandra, but there is optimism in the CDO that the House and Senate, whose attention to Chandra’s importance has now been caught, will fund the project (Chandra is mentioned by name in the FY27 NASA reauthorization bill).

The HRC-S anomaly is being investigated. A slow ramp-up of the high voltage on 1-27-2026 did not trip the current limiter. A normal ramp-up on 3-6-2026 did trip the limiter. Experiments are planned for May 2026 with varying ramp-up speeds. Currently, there are 6 targets with 1.4 Ms exposure planned for HRC-S under Cycle 27.

It was suggested by some community members to change the ToO policy to allow for ‘Community ToO’ programs, such as those run by STScI for HST and JWST. The CDO is thinking about this. The last CUC report already recommended sticking with the ‘triggered ToO’ mode and continues to do so for the time being.

The CXC is looking into the mechanics of funding for researchers at institutions that bill infrequently. By default Chandra GO funding starts flowing triggered by the first observation under an approved proposal, and if an institution did its annual billing the day before, a Guest Observer at that institution has to wait for a long time for critical funding. The Director promises again to try and find a solution.

The CXC is talking to NASA about maintenance and archiving of *Chandra* data and software (CDA, CSC, Ciao) at CXC, and not having that responsibility go to HEASARC. **The CUC has supported this effort in the past and continues to support the Chandra data and software archive remaining at the CXC.**

CUC Plenary Discussion (CUC members, CXC personnel present).

Dave Pooley opens the discussion. No closed session during this CUC meeting.

He offers a brief chronology. In late 2023/early 2024, NASA initiated the drive to shut down the project. An Operations Paradigm Change Review (OPCR) was initiated in 2024. The OPCR found that there is no bloat in the CXC budget. The US and global community reacted to events with a huge show of support. In spring 2025, OMB tried to shut down the project (along with most science in the US); in response, Congress showed strong support for science in general and Chandra in particular, restoring most funding with a specific line item and supporting Chandra by name in both the House and Senate.

Looking ahead, we should exercise vigilance in continuing to advocate for the importance of Chandra science both with Congress and within our community. The CUC should continue to lead advocacy for the project (CXC cannot do that), capitalizing on the general enthusiasm for space science following the recent Artemis success. Given the success of the campaign in restoring funding for FY26, and the anticipation that the project now has significant ‘goodwill’ in Congress, we should shift focus away from crisis-driven advocacy and instead use a gentler approach: keeping the project in the eyes of members of Congress, and emphasizing its importance to science and to society.

We should refute the persisting untruths, especially within segments of our community, that the Chandra budget is “bloated.”

There is reason to be optimistic about the future of flagship-level X-ray science. NASA’s current APD director, Shawn Domagal-Goldman, will initiate technology development for a future flagship X-ray mission and begin a concept study / science and technology definition team. The APD Director has indicated that **consensus and support in the X-ray community for that flagship is crucial. The CUC should help foster that effort.**

There is a range of CUC opinions about the ultimate *Chandra* Source Catalog. There are strong practical constraints on the construction of the Final Catalog: the construction is very people-intensive, and the CXC resources in terms of manpower will be significantly reduced upon transition to the Minimum Cost Mission, eliminating future updates to the Source Catalog and failing to maintain crucial staff that would be needed for a final Source Catalog update at the end of the mission. To construct the Final Catalog after the Last Point Source Detection will require careful planning. No specific suggestion to the CXC emerges from the discussion.

The CUC expressed its appreciation to Dave Pooley for his service, and CUC and CXC extended their appreciation to all three end-of-term CUC members, Dave Pooley, Marcella Brusa, and Tea Temim.