

Terms of Reference

Astrophysics Senior Review Subcommittee of the Astrophysics Advisory Committee

The Astrophysics Senior Review Subcommittee is established as a subordinate group (hereinafter, “Subcommittee”) of the Astrophysics Advisory Committee (APAC), a stand-alone advisory group established under the Federal Advisory Committee Act (FACA). The Subcommittee has been established at the discretion of the Director, Astrophysics Division, following consultation with the Associate Administrator, Science Mission Directorate.

The National Aeronautics and Space Administration (NASA) conducts regular reviews of its operating science missions in order to assess their continued science productivity and whether their operations should be continued through approval of a mission extension. This process follows from the NASA Authorization Act of 2005 and the NASA Transition Authorization Act of 2017. The NASA Authorization Act of 2005 (P.L. 109-155) states that “The Administrator shall carry out biennial reviews within each of the Science divisions to assess the cost and benefits of extending the date of the termination of data collection for those missions that have exceeded their planned mission life time.” The NASA Transition Authorization Act of 2017 (P.L. 115-10) modified the cadence to be triennial reviews. These reviews of operating missions are NASA’s highest form of peer review, as the subject is not a single science investigation, or even a single space mission, but rather a portfolio of operating missions. The reviews of operating missions are referred to as Senior Reviews, in recognition of the highest form of peer review.

The Subcommittee will conduct a Senior Review for NASA of astrophysics operating missions. The Senior Review is an assessment of mission requests for funding, usually involving additional resources in upcoming years, to continue operations of missions in the extended operations phase. The purpose of the review is to assist NASA in maximizing the scientific productivity and operating efficiency of the Astrophysics Division mission portfolio within the available funding. NASA will use the findings from the Senior Review to:

- Prioritize the operating missions and projects;
- Define an implementation approach to achieve astrophysics strategic objectives;
- Provide programmatic direction to the missions and projects concerned for FY23, FY24, and FY25; and
- Issue initial funding guidelines for FY26 and FY27 (to be revisited in the 2025 Senior Review).

NASA actions resulting from the Senior Review could include:

- Authorizing a mission to pass from its prime operations phase to extended operations phase;
- Maintaining the status quo and/or significantly restructuring an operating mission; or
- Terminating an ongoing science mission.

The Senior Review Subcommittee will prepare a report that includes a series of findings to assist with NASA’s astrophysics implementation strategy for FY23-FY27, including an appropriate mix of:

- Continuation of projects at their in-guide level;
- Continuation of projects with either enhancements or reductions to their in-guide budgets;

- Mission extensions beyond the prime mission phase; and/or,
- Termination of projects.

The principal role of the Senior Review Subcommittee is to merge the findings from the panels and to rank all missions on the evaluation criteria defined in, and in accordance with, the Call for Proposals.

The evaluation criteria for the Subcommittee and any subordinate panels will be defined in the Call for Proposals issued to the operating missions being reviewed. This ensures that both the Senior Review panels and the missions invited to the Senior Review are aware of the expectations placed upon them.

The Director, Astrophysics Division, will appoint the Chair and members of the Subcommittee, for terms of up to one year. The Subcommittee will have approximately ten to fifteen members. The membership will consist of leading authorities with relevant expertise drawn from government, academia, independent researcher centers, and industry. Members of the Subcommittee who are not Regular Government Employees will be designated Special Government Employees. Staff and travel support for the Subcommittee Chair and members will be provided by NASA.

The Director, Astrophysics Division, will appoint a Designated Federal Officer for the panel who will coordinate membership, meeting, and other requirements.

The Subcommittee can hold up to six meetings during the year and is expected to be responsive to the requests of the Director, Astrophysics Division, and the Associate Administrator, Science Mission Directorate. The Director, Astrophysics Division, or the Subcommittee may establish panels as needed. It is expected that all or most meetings will be non-public and attendant FACA administrative procedures will be adhered to.

The Subcommittee will report to the APAC and will not provide advice or work products directly to NASA. The Subcommittee Chair or designated member will submit a Senior Review report containing the Subcommittee's recommendations and findings, as well as its work products, for public deliberation by the APAC. After public deliberation of the Senior Review report delivered to it by the Senior Review Subcommittee, the APAC will deliver a final report to NASA reflecting its formal recommendations to NASA, as well as append an unedited copy of the Senior Review Subcommittee's report.

These Terms of Reference will be terminated at either the discretion of the Director, Astrophysics Division, following consultation with the Associate Administrator, Science Mission Directorate, or one year from its signed effective date, whatever comes first.

PAUL HERTZ Digitally signed by PAUL HERTZ
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Paul Hertz
Director, Astrophysics Division
NASA Science Mission Directorate

Date