

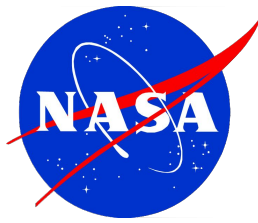
2022 Senior Review

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Astrophysics Advisory Committee
14-October-2021

Eric P. Smith
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Astrophysics Division





Missions in the 2022 Senior Review

Chandra X-ray Observatory (Chandra)

Fermi Gamma-ray Space Telescope (Fermi)

Hubble Space Telescope (Hubble)

Neutron star Interior Composition ExploreR (NICER)

New Horizons [Astrophysics only]*

Nuclear Spectroscopic Telescope Array (NuSTAR)

Stratospheric Observatory for Infrared Astronomy (SOFIA)

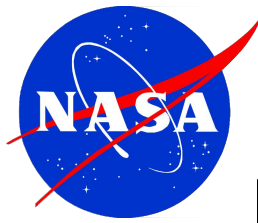
Neil Gehrels Swift Observatory (Swift)

Transiting Exoplanet Survey Satellite (TESS)

X-ray Multi-mirror Mission-Newton (XMM-Newton)

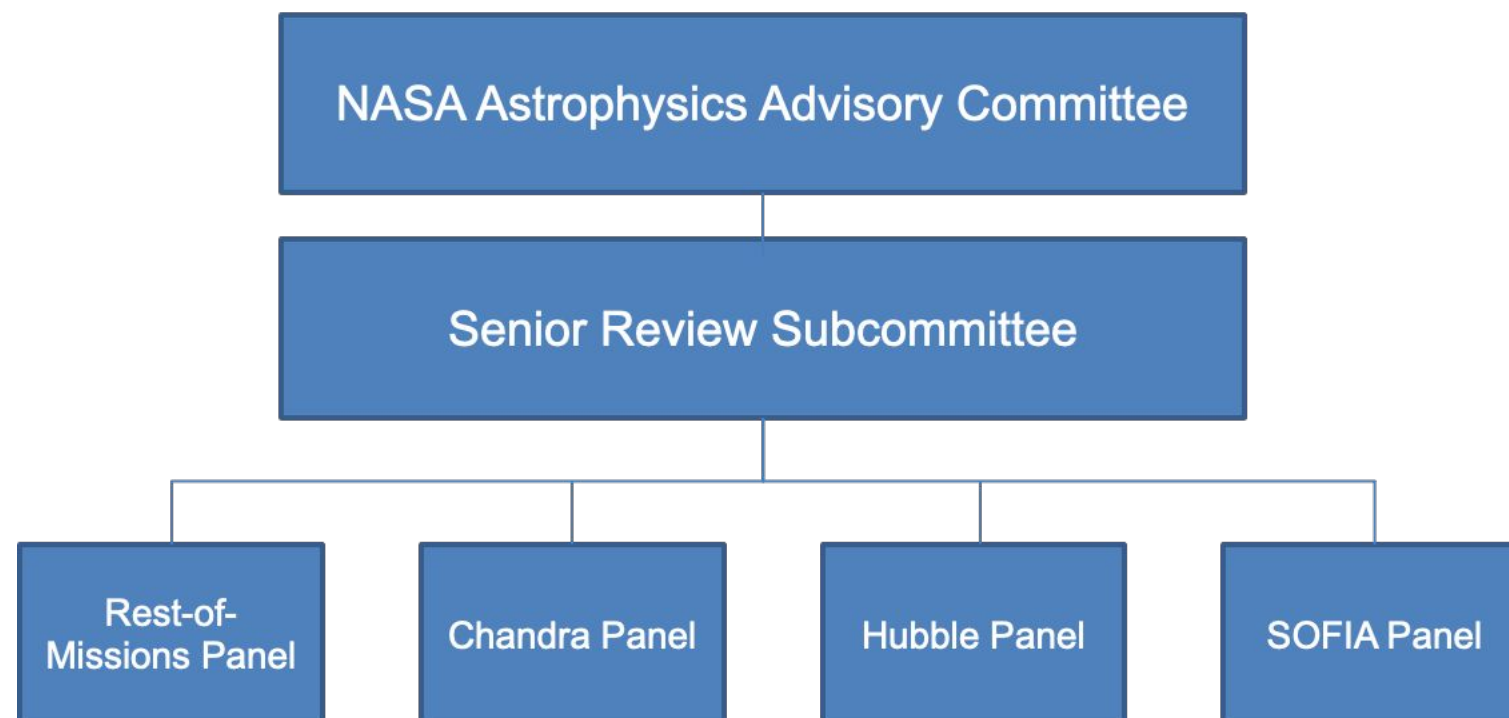
*Primary evaluation carried out by the Planetary Science Division

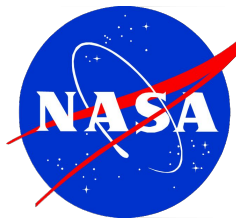




Panel Composition and Scope

The 2022 Astrophysics Senior Review is using a hybrid structure, in which four panels report to a Senior Review Subcommittee, which has been established under the Astrophysics Advisory Committee, compliant with FACA.





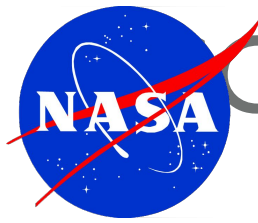
and their technical capability and cost

reasonableness (i.e., all missions except Chandra and Hubble). It will provide a series of findings to

assist with the 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.





SOFIA Panel:

Panels

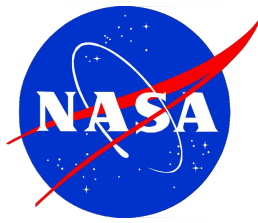
This is SOFIA's first entry into the Senior Review. Given its status as an astrophysics community facility, and because of the scope and complexity of the operation of an airborne observatory, there will be an individual panel for SOFIA. This is a comprehensive review, and the SOFIA panel will be charged with evaluating SOFIA based on its scientific merit, its relevance and responsiveness to the division's strategic goals, and its technical capability and cost reasonableness.

Rest-of-Missions Panel:

The remaining missions (Fermi, NICER, New

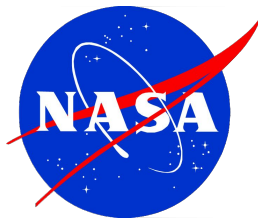
Horizons, NuSTAR, Swift, TESS, XMM-Newton) will





APAC Role

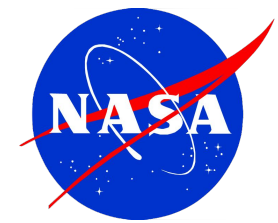
After public deliberation of the Senior Review Report delivered to it by the Senior Review Subcommittee, the APAC will deliver a final report to NASA reflecting its formal recommendations to NASA, as well as append an unedited copy of the Senior Review Subcommittee's report.



Schedule

Date	Activity
September 30, 2021	Call for proposals issued
February 11, 2022	Senior Review proposals due
March-April 2022	Rest-of-missions, Chandra, Hubble, and SOFIA panels meet
April 2022	Reports from panels due to Senior Review Subcommittee
April 2022	Senior Review Subcommittee meets
April 2022	Senior Review Subcommittee reports to APAC
May 2022	APAC delivers formal recommendations to NASA
May-June 2022	NASA response to Senior Review and direction to projects





Questions?