NATIONAL ACADEMIES Sciences Engineering Medicine

Update from the Committee on Astronomy and Astrophysics

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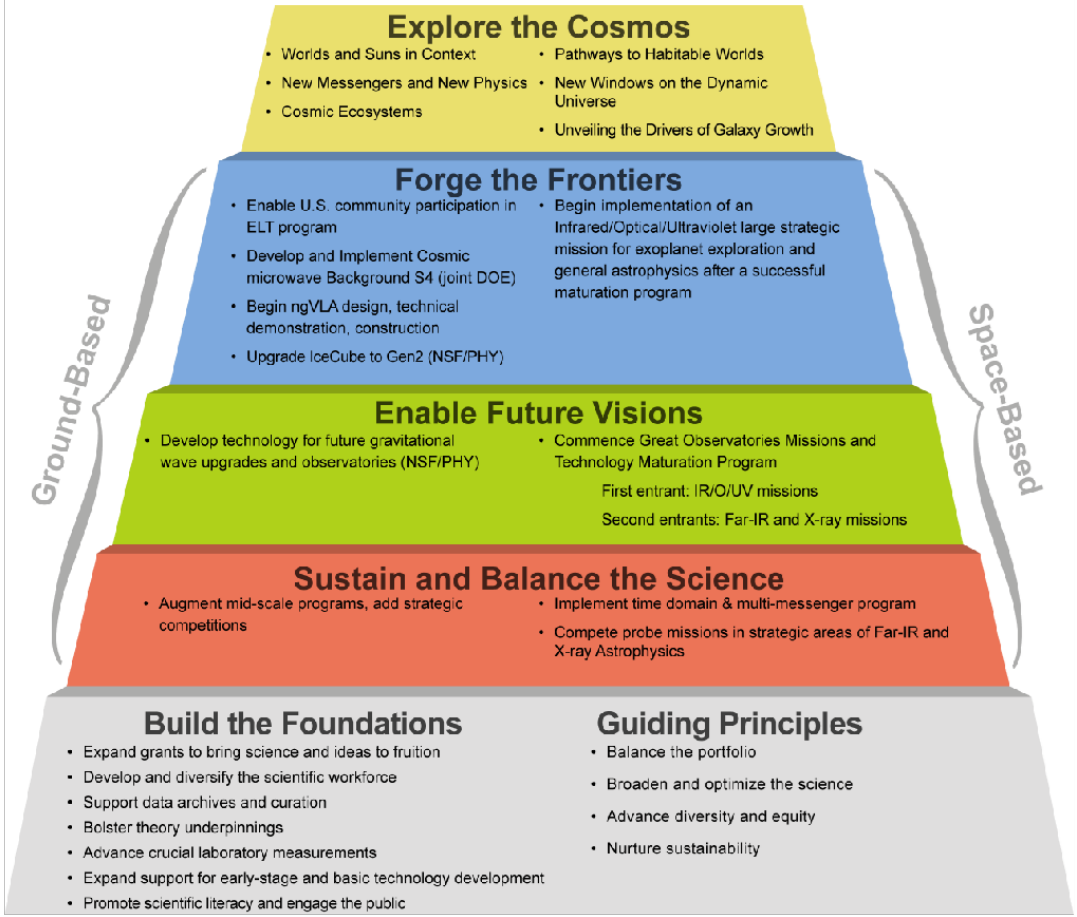
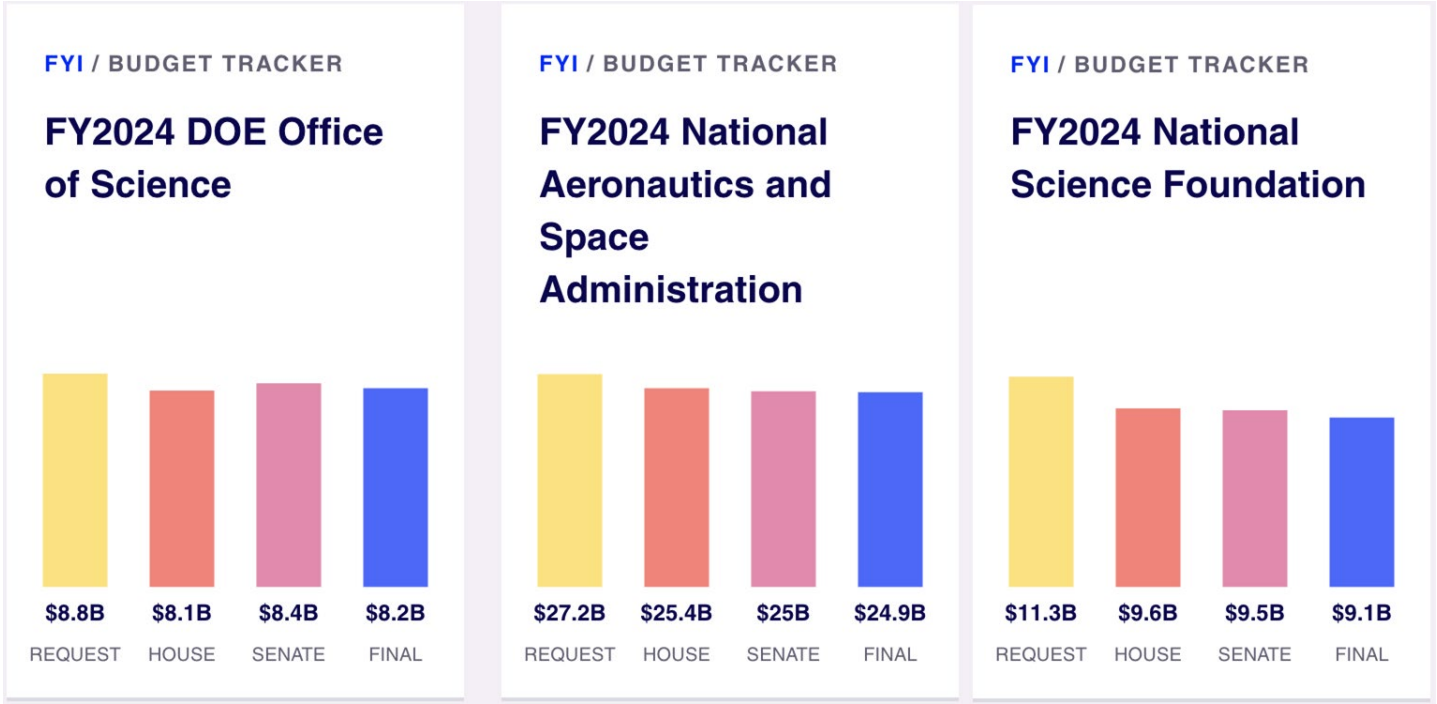
Realizing the Astro2020 Program: Pathways From Foundations to Frontiers



Budgets for Agencies Supporting Astronomy – top line

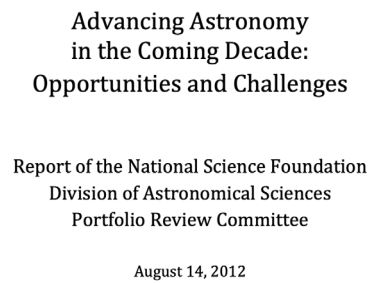


Source: AIP Federal Science Budget Tracker

Budgets for Agencies Supporting Astronomy – programs

Agency	Actual 2023	Enacted 2024	Request 2025
NASA Astrophysics	$1510 M	~$1530 M	$1578 M
NSF Astronomy	$288 M	overall 7.5% NSF cut	$318 M
DOE Cosmic Frontier	$108 M	~$105 M	$98 M

Community Reviews – NSF



Recommendation: The National Science Foundation Division of Astronomical Sciences should establish a regular cadence of reviews of its operational portfolio, at a frequency that is sufficient to respond to changes in scientific and strategic priorities in the field. An appropriate target is at least two reviews per decade.

Last NSF Portfolio Review in 2012

Recommendation from Astro2020

Community Reviews – NSF

DIVISION OF ASTRONOMICAL SCIENCES (AST) **$294,050,000**
+$4,780,000 / 1.7%

AST Funding
(Dollars in Millions)

	FY 2021 Actual	FY 2022 (TBD)	FY 2023 Request	Change over FY 2021 Actual Amount	Percent
Total	$289.27	-	$294.05	$4.78	1.7%
Research	52.61	-	73.74	21.13	40.2%
CAREER	3.60	-	4.81	1.21	33.6%
Centers Funding (total)	0.30	-	0.30	-	-
Artificial Intelligence Research Institutes	0.30	-	0.30	-	-
Education	3.54	-	6.10	2.56	72.3%
Infrastructure	233.12	-	214.21	-18.91	-8.1%
Arecibo Observatory[1]	13.83	-	3.00	-10.83	-78.3%
Green Bank Observatory	8.90	-	9.12	0.22	2.5%
Mid-scale Research Infrastructure	19.17	-	19.50	0.33	1.7%
National Radio Astronomy Observatory (NRAO)	98.21	-	91.16	-7.05	-7.2%
NRAO O&M [2]	*49.53*	-	*40.53*	*-9.00*	*-18.2%*
Atacama Large Millimeter Array (ALMA) O&M	*48.68*	-	*50.63*	*1.95*	*4.0%*
National Solar Observatory (NSO)	24.19	-	25.46	1.27	5.3%
NSO O&M	*4.65*	-	*5.88*	*1.23*	*26.5%*
Daniel K. Inouye Solar Telescope (DKIST) O&M	*19.54*	-	*19.58*	*0.04*	*0.2%*
NSF's National Optical-Infrared Astronomy Research Laboratory (NOIRLab)	60.32	-	58.97	-1.35	-2.2%
NOIRLab O&M (Mid-Scale Observatories & Community Science and Data Center) [3]	*29.95*	-	*25.99*	*-3.96*	*-13.2%*
Gemini Observatory O&M	*24.27*	-	*22.98*	*-1.29*	*-5.3%*
Vera C. Rubin Observatory O&M	*6.09*	-	*10.00*	*3.91*	*64.2%*
Research Resources	7.94	-	7.00	-0.94	-11.8%

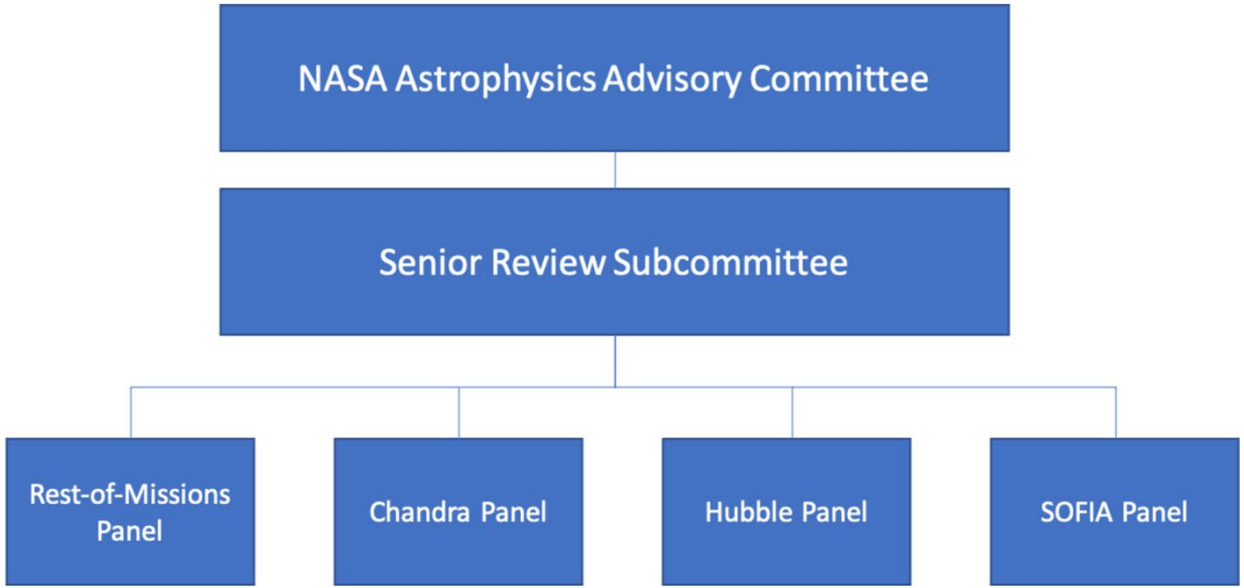
[1] FY 2021 Actual includes $10.57 million for emergency cleanup of the Arecibo site following the collapse of the platform above the 305-meter telescope in December 2020. FY 2021 Actual excludes $0.53 million of O&M funding obligated in FY 2020.

[2] FY 2021 Actual includes funding for the ngVLA program office.

[3] FY 2021 Actual includes special projects funding of $9.44 million. FY 2023 Request contains $4.86 million in additional research infrastructure and O&M costs, including additional costs for repairs and maintenance.

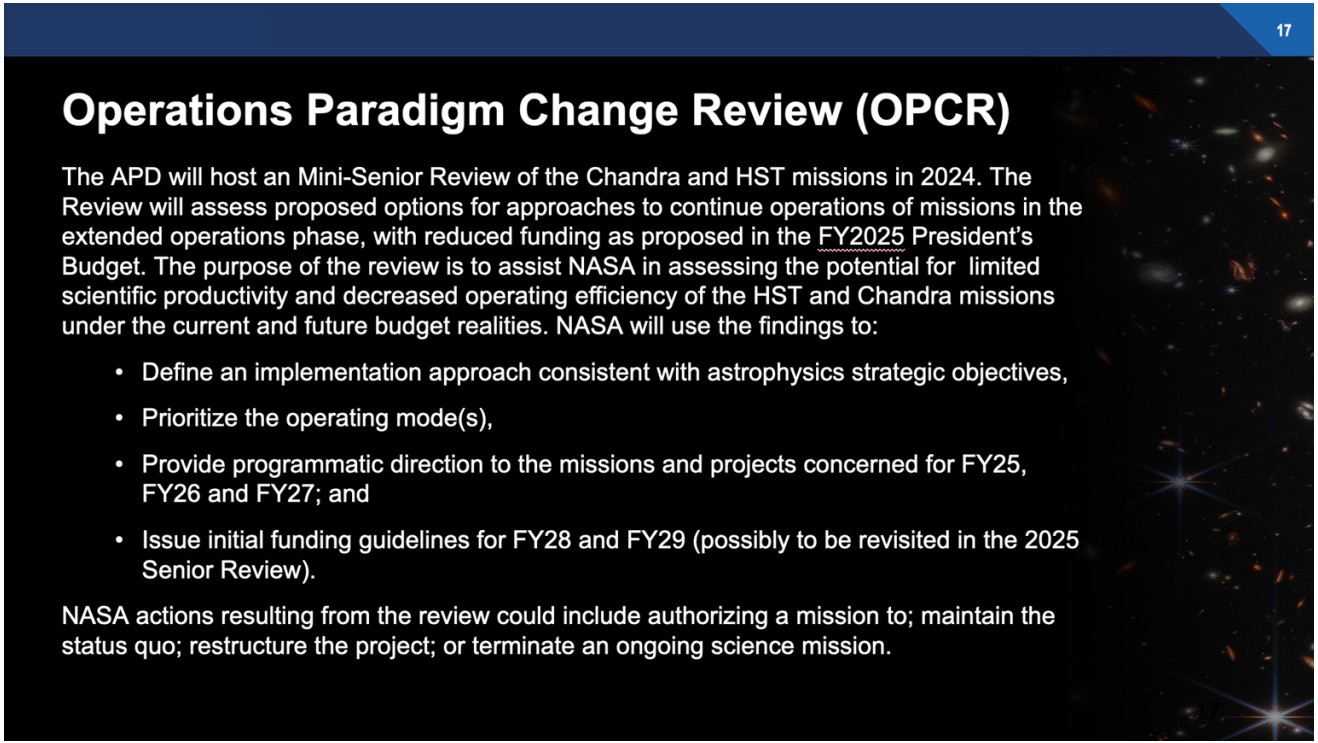
NSO
NRAO
NOIRLab
} 3 FFRDCs within AST

Community Reviews: NASA has a well-established route to evaluating missions in extended operations



graphic from 2022 Call for Proposals for NASA Astrophysics Division Senior Review of Operating Mission

Community Reviews



slide from Mark Clampin March 2024 presentation to CAA

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Thank You!