NASA FY22 Budget Request

($ millions, COVID-19 response and recovery funds excluded)

Account	FY20 Enacted	FY21 Enacted	FY22 Budget Request	Change 21-22	House	Senate
NASA	**22,629**	**23,271**	**24,802**	**7%**		
Science	7,143	7,301	7,931	9%		
Human Exploration	5,960	6,555	6,880	5%		
Space Operations	4,135	3,988	4,017	1%		
Space Technology	1,100	1,100	1,425	30%		
Aeronautics	784	829	915	10%		
STEM Engagement	120	127	147	16%		

The request is $ 24.802 billion for NASA, more than $1.5 billion above the $23.272 billion the agency received in FY21. In contrast to previous years, both earth and planetary sciences are proposed for strong increases and not pitted against one another.

Earth Science - $250 million increase (13%), including $137.8 million to start work on the Earth System Observatory, and a boost in funding for commercial development of low Earth orbit.

Planetary science- $500 million increase (19%) with additional funding for a new Mars Sample Return program and development of the Near-Earth Object Surveyor mission, to search for potentially hazardous asteroids.

The proposal includes funding for several science missions frequently targeted for cancellation, such as the Nancy Grace Roman Space Telescope and the PACE and CLARREO Pathfinder Earth science missions.

On the other hand, it zeroed out the Stratospheric Observatory for Infrared Astronomy (SOFIA) program, funded at $85 million annually, noting that the James Webb Space Telescope would be able to handle some of the infrared astronomy currently performed by SOFIA.

Funding is flat for the Orion, Space Launch System and Exploration Ground Systems programs, but overall research and development spending increases by more than 20% to nearly $2.4 billion.

NASA is supporting continued funding for the International Space Station (.5% increase) and the Artemis moon program, with an indication that NASA will retaining the goal of landing humans on the moon in 2024.

Office of STEM Engagement

Similar increases were provided to three OSTEM programs, with Space Grant proposed at plus $3 million and EPSCoR and MUREP proposed at plus $2 million, and NextGen STEM was level funded.

Budget Authority (in $ millions)	Op Plan FY 2020	Enacted FY 2021	Request FY 2022
NASA Space Grant	48.0	51.0	**57.0**
Established Program to Stimulate Comp Research	24.0	26.0	**26.0**
Minority University Research Education Program	36.0	38.0	**48.0**
Next Gen STEM	12.0	12.0	**16.0**
Total Budget	**120.0**	**127.0**	**147.0**
Change from FY 2021			**20.0**
Percentage Change from FY 2021			**13.9%**

NASA offered this directional language for Space Grant:

"*With the additional funding in Space Grant, NASA will look to expand opportunities to partner with mission directorates, in areas that further mission directorate priorities and align with Space Grant capabilities. NASA will focus on collaborating with Space Grant to implement student opportunities that have potential for regional or national scalability and move beyond individual state application. Additionally, NASA will have an increased focus on how Space Grant can address the persistent challenges of broadening participation in STEM and reaching those students who are underrepresented and underserved.*"

Furthermore, "*increased funding will enable the Space Grant consortia to increase impact of NASA learning opportunities centered around the 2023 and 2024 Eclipses. Space Grant will also look to extend its reach through mission directorate cost-matching awards, in areas that further mission directorate priorities and align with Space Grant capabilities*."

"FY 2022 will see an increase of at least $100,000 per Consortium to increase the number of student awards and other programming within each Consortium. With the additional funding in Space Grant, NASA will look to expand opportunities to partner with mission directorates on awards that further mission directorate priorities and align with Space Grant capabilities. Additionally, NASA will have an increased focus on how Space Grant can address the persistent challenges of broadening participation in STEM and reaching underrepresented and underserved students."

The budget request reiterates a goal of focusing on broadening student participation, also through a 'new integrated action plan' and the MUREP program.

The FY22 budget supports base awards for the 52 consortia to do the following:

•Provide hands-on learning experiences for U.S. graduate and undergraduate students to prepare them for the future workforce and/or academic careers;

•Conduct programs and projects that align with the NASA STEM engagement and mission directorate priorities, CoSTEM priority areas, and State-specific needs to build STEM pathways in higher education, research infrastructure, pre-college and informal education;

•Promote a strong STEM education base from elementary through secondary levels while preparing teachers in these grade levels to become more effective at improving student academic outcomes;

•Build upon and maintain the existing national network of universities with interests and capabilities in aeronautics, space, and related fields; and

•Leverage the opportunities emerging from the NASA OSTEM strategy to develop high-impact, nationwide partnerships.

Additionally, in FY 2022 Space Grant will:

•Release, approve, and award base award augmentations to raise the base award funding level to at least $820,000 per Consortium;

•Provide a new competitive opportunity for multiple Consortia to propose jointly to expand the reach and impact of NASA learning opportunities and content with a focus on underserved K-12 communities;

•Down-select one awardee to complete the program-level evaluation for the remaining base award period from the two pilot awards; and

•Provide funded extension of the six Space Grant Artemis Student Challenges with new end dates in August 2022.