training and technical assistance and permits up to 2 percent of grant funds made available to that office to be used for criminal justice research, evaluation and statistics by the National Institute of Justice and the Bureau of Justice Statistics.

Section 213 provides cost-share waivers for certain DOJ grant programs.

Section 214 waives the requirement that the Attorney General reserve certain funds from amounts provided for offender incarceration.

Section 215 prohibits funds, other than funds for the national instant criminal background check system established under the Brady Handgun Violence Prevention Act, from being used to facilitate the transfer of an operable firearm to a known or suspected agent of a drug cartel where law enforcement personnel do not continuously monitor or control such firearm.

Section 216 places limitations on the obligation of funds from certain Department of Justice accounts and funding sources.

Section 217 allows certain funding to be made available for use in Performance Partnership Pilots.

Section 218 establishes reporting requirements for certain Department of Justice Funds.

TITLE III

SCIENCE

Office of Science and Technology Policy

The agreement includes $6,652,000 for the Office of Science and Technology Policy (OSTP).

Climate Change Adaptation.—The agreement adopts House language on Climate Change Adaptation and directs OSTP to undertake this work from within available funds.

Emerging Contaminants.—OSTP submitted the ''Update to the Plan for Addressing Critical Research Gaps Related to Emerging Contaminants in Drinking Water'' in January 2022, which includes an updated cross-agency Federal research strategy for addressing critical research gaps related to detecting and assessing exposure to emerging contaminants in drinking water through the National Emerging Contaminant Research Initiative. No later than 180 days after the enactment of this Act, OSTP shall update the Committees on program, policy, or budgetary resources included in the fiscal year 2023 budget request, by agency, to support the implementation of the Federal research strategy, as well as anticipated needs for fiscal year 2024. As part of this update, OSTP is directed to include the status of the National Emerging Contaminant Research Initiative.

Sustainable Chemistry.—OSTP is encouraged to support the timely and full implementation of subtitle E of title II of William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (Public Law 116—283), including the establishment of an interagency working group led by OSTP to coordinate Federal programs and activities in support of sustainable chemistry.

Solar Geoengineering.—OSTP is directed to develop an interagency working group, in coordination with NOAA, NASA, DOE, and other relevant agencies, to manage near-term climate hazard risk and coordinate research in climate intervention. In parallel, the interagency working group should also establish a research governance framework to provide guidance on transparency, engagement, and risk management for publicly funded work in solar geoengineering research.

Industries of the Future.—No later than 30 days after enactment of this Act, OSTP shall provide the Committees the report required in the Industries of the Future Act of 2020 (Public Law 116—283) that includes an assessment and recommendation related to the Federal Government's investments in research and development in critical areas, such as artificial intelligence, quantum computing, advanced manufacturing, and biotechnology.

National Space Council

The agreement includes $1,965,000 for the activities of the National Space Council.

Quarterly Briefings.—The National Space Council is directed to continue quarterly briefings as described in the explanatory statement accompanying Division B of Public Law 116–260.

National Aeronautics and Space Administration

The agreement includes $24,041,300,000 for the National Aeronautics and Space Administration (NASA). NASA shall continue to follow directives contained in the explanatory statement accompanying Division B of Public Law 116–260 under the headings ''Quarterly Launch Schedule'' and ''Oversight and Accountability.''

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

(In thousands of dollars)

Program	Amount
Science:	
Earth Science....	$2,064,700
Planetary Science	3,120,400
Astrophysics	1,393,500
James Webb Space Telescope	175,400
Heliophysics	777,900
Biological and Physical Science	82,500
Total, Science	7,614,400
Aeronautics	880,700
Space Technology	1,100,000
Exploration:	
Orion Multi-purpose Crew Vehicle..	1,406,700
Space Launch System.	
(SLS) Vehicle Deployment	2,600,000
Exploration Ground Systems..	590,000
Exploration Research and Development...	2,195,000
Total, Exploration	6,791,700
Space Operations....	4,041,300
Science, Technology, Engineering, and Mathematics (STEM)	137,000
Safety, Security and Mission Services	3,020,600
Construction and Environmental Compliance and Restoration	410,300
Office of Inspector General	45,300
Total, NASA	$24,041,300

SCIENCE

The agreement includes $7,614,400,000 for Science and directs NASA to provide funding as described in the table above and text below. NASA shall continue its progress toward implementing the recommendations within the Earth Science, Heliophysics, Planetary Science, Astrophysics, and Biological and Physical Sciences decadal surveys. The Science Mission Directorate's efforts to promote diversity and inclusion among principal investigators (PIs) are noted and appreciated.

Earth Science.—In lieu of the funds designated in the House report for Earth Science, the agreement provides up to the request level for Earth Science Research and Analysis; Decadal Survey and Future Missions; Plankton, Aerosol, Cloud, ocean Ecosystem (PACE); Carbon Monitoring System; Earth Venture Class Missions; NASA–ISRO Synthetic Aperture Radar; and the Geostationary Carbon Cycle Observatory (GeoCARB). NASA is directed to provide no less than the request level for the Climate Absolute Radiance and Refractivity Observatory Pathfinder (CLARREO) and the Geosynchronous Littoral Imaging and Monitoring Radiometer (GLIMR).

University Small Satellite Missions.—Of the funds provided for Science, NASA is directed to allocate not less than $30,000,000 for university small satellite missions.

Commercial Launch Industry.—The agreement affirms House report language regarding the use of small satellite missions and directs NASA to ensure its merit review processes encourage PIs to use these services where appropriate.

Robotically Assembled Earth Science Platform.—NASA is encouraged to support, in partnership with industry, the development and deployment of capabilities using NASA-supported robotic assembly and on-orbit structure manufacturing technologies to enable operation of multiple modular Earth remote sensing instruments.

Lunar Discovery.—The agreement includes up to $497,300,000 for Lunar Discovery and Exploration, including up to the request level for Commercial Lunar Payload Services (CLPS), not less than $22,100,000 for the Lunar Reconnaissance Orbiter, and not less than $107,200,000 for the Volatiles Investigating Polar Exploration Rover (VIPER).

Venus Technology.—In lieu of the House language, the agreement provides up to the request level for Venus Technology.

Dragonfly.—In lieu of the House language on New Frontiers, the agreement provides $201,100,000 for Dragonfly.

Mars Sample Return.—In lieu of the House language on Mars Sample Return, the agreement provides no less than the request level and strongly supports NASA's highest priority planetary mission.

Small Innovative Missions for Planetary Exploration (SIMPLEx).—The agreement affirms House report language regarding SIMPLEx and urges NASA to consider developing plans to increase SIMPLEx solicitations to further accelerate and enhance overall planetary science mission objectives.

Icy Satellites Surface Technology.—The agreement directs that not less than $14,200,000 shall be for Icy Satellites Surface Technology. NASA may use current and prior-year resources to meet this funding level.

Roman Telescope.—The agreement includes $501,600,000 for the Nancy Grace Roman Space Telescope. NASA is expected to use a firm $3,500,000,000 development cost cap in its future execution of the mission.

Science Mission Directorate (SMD) Education.—The agreement provides no less than $50,600,000 for education and outreach efforts. The agreement further supports the recommendation that the Astrophysics program continue to administer this SMD-wide education funding. The agreement encourages SMD-funded investigators to be directly involved in outreach and education efforts and support citizen science. NASA should continue to prioritize funding for ongoing education efforts linked directly to its science missions.

Astrophysics Decadal Survey.—The Astrophysics decadal survey, *Pathways to Discovery in Astronomy and Astrophysics for the 2020s* (Astro2020), was issued in November 2021. It recommended the establishment of a technology development program to mature science and technologies needed for the recommended missions beginning with those needed for a large telescope to observe habitable exoplanets. Congress has previously supported such efforts through Search for Life Technologies. As part of its preparations for implementing the Astro2020 recommendations, NASA is expected to include appropriate funding for technology maturation in its fiscal year 2023 budget request to ensure continued Astrophysics mission success.

Stratospheric Observatory for Infrared Astronomy (SOFIA).—The agreement notes all recommendations of Astro2020. The agreement includes $85,200,000 from within current

and prior year resources to continue SOFIA operations in fiscal year 2022.

James Webb Space Telescope (JWST).—The agreement includes $175,400,000 for the JWST.

Heliophysics Technology.—The agreement provides up to the request level for Heliophysics Technology.

Solar Terrestrial Probes.—The agreement provides up to the request level for Solar Terrestrial Probes, including no less than the fiscal year 2021 level from within current and prior year resources to continue Magnetospheric Multiscale mission operations in fiscal year 2022.

Heliophysics Explorers.—The agreement provides $189,200,000 for Heliophysics Explorers.

Heliophysics Research Range.—The agreement provides the requested level for Research Range.

Space Weather.—The agreement provides no less than $25,000,000 for Space Weather Science and Applications (SWSA), including no less than $1,000,000 to initiate the implementation of a center-based mechanism to support multidisciplinary space weather research, advance new capabilities, and foster collaboration among university, government, and industry participants aimed at improving research-to-operations and operations-to-research. The SWSA program should focus on research and technology that enables other agencies to improve operational space weather forecasts and assets, including ground-based assets such as the Daniel K. Inouye Solar Telescope.

Biological and Physical Science.—The agreement includes $82,500,000 for Biological and Physical Science.

AERONAUTICS

The agreement includes $880,700,000 for Aeronautics, including up to $311,700,000 for the Integrated Aviation Systems Program.

Hypersonics Technology.—The agreement includes not less than $50,000,000 for Hypersonics Technology, of which $15,000,000 shall be prioritized for collaborative work between academia and industry, including for carbon/carbon material testing and characterization as well as reusable vehicle technologies and hypersonic propulsion systems.

High-Rate Composite Aircraft Manufacturing (HiCAM).—The agreement provides no less than $32,000,000 to enable HiCAM to select large-scale ground tests of both fuselage and wing to accelerate industry's development of this critical technology to help ensure the global competitiveness of the U.S. aerospace industry. NASA is encouraged to leverage existing academic and industry expertise to help demonstrate efficient design, development, and certification requirements associated with this program and to utilize no less than 75 percent of these funds to support public-private partnerships with at least a 50 percent government cost share.

Advanced Materials Research.—The agreement provides up to $7,000,000 above the request to advance university-led aeronautics materials research. NASA is encouraged to partner with academic institutions that have strong capabilities in aviation, aerospace structures, and materials testing and evaluation.

Low-Boom Flight Demonstrator (LBFD) Over Land Supersonic Testing.—NASA has identified a comprehensive set of atmospheric environments that its low sonic boom aircraft will encounter in flights over land in anticipation of initial test flights of the LBFD experimental aircraft beginning in 2022. NASA is directed to include established non-military supersonic test corridors for the LBFD flight tests.

Unmanned Traffic Management (UTM).—NASA is encouraged to continue work with the FAA and other Federal agencies, States, counties, cities, and Tribal jurisdictions on research toward the development of a UTM system, technologies, and applications for enhanced UTM air domain awareness.

Aviation Supply Chain.—The agreement directs NASA to assess the existing aviation supply chain from materials suppliers to structures manufacturing, including modeling existing and potential future supply chain gaps. In conducting the assessment, NASA should consult with industry and other relevant Federal agencies to identify future technology and research needs impacted by supply chain disruptions.

SPACE TECHNOLOGY

The agreement includes $1,100,000,000 for Space Technology and reaffirms support for the independence of the mission directorate. In lieu of the House language, the agreement provides up to the request level for On-Orbit Servicing, Assembly, and Manufacturing-2 (OSAM–2), Fission Surface Power, Solar Electric Propulsion, and the Lunar Surface Innovation Initiative. The agreement also encourages NASA to support active debris removal technology development.

Regional Economic Development Initiative.—The agreement provides up to $8,000,000 for the Regional Economic Development Initiative.

Restore-L/SPace Infrastructure DExterous Robot (SPIDER).—The agreement provides $227,000,000 for the Restore-L Project. NASA should continue to work with private sector and university partners to facilitate commercialization of the technologies developed within the program. NASA is directed to submit with its fiscal year 2023 budget request a report on current efforts underway to encourage commercialization of technology within the Restore-L program, with a focus on how intellectual property will be handled. The agreement also directs NASA to keep the program on track for launch no later than 2025 and encourages NASA to make Restore-L's capabilities available to other government agencies.

Nuclear Thermal Propulsion.—The agreement provides not less than $110,000,000 for the development of nuclear thermal propulsion, of which not less than $80,000,000 shall be for the design of test articles that will enable a flight demonstration. Within 180 days of enactment of this Act, NASA, in conjunction with other relevant Federal departments and agencies, shall submit a multi-year plan that enables technology development leading to an in-space propulsion-system demonstration and describes future missions and propulsion and power systems enabled by this capability.

Flight Opportunities Program.—The agreement includes no less than $27,000,000 for the Flight Opportunities Program, including $5,000,000 to support payload development and flight of K–12 and collegiate educational payloads. NASA shall continue to follow directives contained in the explanatory statement accompanying Division B of Public Law 116–260 under the heading ''Flight Opportunities Program.''

Innovative Nanomaterials.—The agreement provides up to $5,000,000 to advance large scale production and use of innovative nanomaterials, including carbon nanotubes and carbon/carbon composites.

Nuclear Electric Propulsion (NEP).—In lieu of the House language on Nuclear Electric Propulsion, the agreement directs NASA to identify areas of alignment between NEP research and Fission Surface Power research. The agreement also maintains the House direction regarding a response to the National Academies of Science study on nuclear propulsion and a report on a multi-year plan for an in-space propulsion-system demonstration for NEP.

Moon-to-Mars.—To support Moon-to-Mars specific technologies, crosscutting applications for the commercial space economy, as well as the scientific and robotic exploration of planetary bodies and other destinations, the agreement directs NASA, within available resources, to support investments in demonstration efforts to allow for competitive public-private partnership opportunities focused on high-level, NASA-defined objectives. The agreement directs NASA to provide a report within 180 days of enactment of this Act on existing Tipping Point projects and planned Announcement of Collaborative Opportunities solicitations.

On-surface Manufacturing Capabilities.—The agreement provides no less than the fiscal year 2021 enacted level for On-Surface Manufacturing and directs NASA, through partnerships with universities, to leverage efforts that complement ongoing work on the development of advanced materials with a focus on point-of-need and in-place generated materials, energy capture and power storage, recycling, commercialization, and workforce development.

Small Business Innovation Research (SBIR).—NASA shall continue to fulfill statutory obligations for SBIR funding and place an increased focus on awarding SBIR awards to firms with fewer than 50 employees.

EXPLORATION

The agreement includes $6,791,700,000 for Exploration.

Orion Multi-Purpose Crew Vehicle.—The agreement includes $1,406,700,000 for the Orion Multi-Purpose Crew Vehicle.

Space Launch System (SLS).—The agreement provides $2,600,000,000 for SLS, of which $600,000,000 is for concurrent SLS Block 1B Development, including Exploration Upper Stage development and associated stage adapter work. The agreement reaffirms House report language regarding SLS and Block 1B Development, is supportive of fully developing the capabilities of SLS, and directs NASA to continue the simultaneous development of activities as authorized under sections 302(c)(1)(a) and (b) of Public Law 111–267. Further, as NASA continues to refine its strategy for a sustainable presence and exploration of the lunar surface, the agreement encourages NASA to continue its exploration of a cargo variant of SLS for use in the Artemis program and for other purposes.

Exploration Ground Systems (EGS).—In lieu of the House language on EGS, the agreement provides not less than $590,000,000 for EGS, including up to $165,300,000 for the Mobile Launch Platform–2 (MLP–2). The extraordinary projected cost increase for MLP–2 is concerning. However, it is understood that the MLP–2's emergent cost needs may put a strain on EGS activities, and thus the agreement provides NASA with one-time additional flexibility regarding transfer authority into EGS.

Exploration Research and Development.—In lieu of House funding for Exploration Research and Development, the agreement includes $2,195,000,000, of which not less than $1,195,000,000 is for the Human Landing System.

Human Landing System (HLS).—The agreement provides not less than $1,195,000,000 for HLS, including no less than the requested amount for the Lunar Lander office. With these funds, in addition to enabling a human landing during the Artemis III mission, NASA is expected to make real investments in development that promote competition for the sustainable lander phase rather than additional studies. The agreement urges NASA to enable a routine cadence of human transportation services to and from the Moon with multiple providers, as practicable. Within 30 days of enactment of this

Act, NASA is directed to deliver a publicly available plan explaining how it will ensure safety, redundancy, sustainability, and competition in the HLS program within the resources provided by this Act and included in the fiscal year 2023 budget request. NASA shall also provide to the Committees a description of all resources needed in fiscal years 2023 through 2026 to accomplish these goals.

Artemis Element Transition.—NASA has requested authority to begin transitioning production and operations contracts from Exploration to Space Operations. However, a formal budget request that outlines the planned transition of Artemis elements from Exploration to Operations is needed before making any change in the accounts that fund ongoing programs, especially as the Artemis program has yet to see the system's integrated first flight. The agreement therefore does not include language allowing a portion of Orion funding to be transferred to Space Operations in fiscal year 2022, though NASA is not precluded from including operational funding in the appropriate account in its fiscal year 2023 budget request. Such request should delineate any requested transition, along with a plan to ensure integrated reporting and a continued focus on safety as the agency prepares for crewed launches and eventually a human Moon landing. As Artemis program elements move from development to operations it is important that costs be reduced in order to free up funds to develop additional capabilities for lunar and Mars exploration.

Priority of Use Missions.—NASA is directed to continue reporting to the Committees any activities that cause NASA to invoke its ''Priority of Use'' clause, including identifying the conflicting activities between NASA and non-Federal activities, and how the conflict was resolved, 15 days prior to any activity taking place. NASA shall ensure that any non-Federal activities do not interfere with the progress of, and schedule for, the Artemis missions.

Streamlining Exploration.—As SLS, Orion, EGS, and other elements of the Artemis architecture transition from development to production and operations, the long-term cost effectiveness of Artemis will depend on NASA appropriately aligning its own workforce during this transition to drive affordability and eliminate work products that are not required.

Artemis Multi-year Plan.—The agreement directs NASA not to obligate in excess of 40 percent of the amounts made available in this Act for the Gateway; Advanced Cislunar and Surface Capabilities; Commercial LEO Development; Human Landing System; and Lunar Discovery and Exploration, excluding the Lunar Reconnaissance Orbiter, until the Administrator submits a multi-year plan to the Committees that identifies estimated dates, by fiscal year, for Space Launch System flights to build the Gateway; the commencement of partnerships with commercial entities for additional LEO missions to land humans and rovers on the Moon; and conducting additional scientific activities on the Moon. The multi-year plan shall include key milestones to be met by fiscal year to achieve goals for each of the lunar programs described in the previous sentence and funding required by fiscal year to achieve such milestones, as well as funding provided in fiscal year 2022 and previous years.

SPACE OPERATIONS

The agreement provides $4,041,300,000 for Space Operations.

Human Research Program.—As requested by NASA, the agreement moves the Human Research Program to the Space Operations Mission Directorate.

21st Century Launch Complex Program.—In lieu of House language on the 21st Century Launch Complex Program, within the amounts provided for Space Operations, the agreement includes up to the fiscal year 2021 levels for the 21st Century Launch Complex Program. The agreement urges NASA to continue to consider the full potential of all NASA-owned launch complexes in awarding funds made available through this program.

Space Communications.—While commercial service providers have the potential to meet some NASA needs, the agency will need to plan and budget for the replacement of essential services if commercial services are unable to meet NASA's needed capabilities when Tracking and Data Relay Satellites reach the end of their service lives. In addition to the direction in the House report, NASA shall provide a timeline for sustainment of the existing Deep Space Network and infrastructure upgrades, including those identified in the ''Road to Green'' study, in the fiscal year 2023 budget request and brief the Committees on these plans within 30 days after the date of the submission of the fiscal year 2023 budget request. The agreement also supports up to the full request for the Communications Services Program.

Commercial LEO Development.—The agreement provides up to $101,100,000 for LEO commercialization to grow promising research across all scientific disciplines and industries. NASA shall continue to follow directives contained in the explanatory statement accompanying Division B of Public Law 116–260 under the heading ''Commercial LEO Development.''

SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS ENGAGEMENT

The agreement includes $137,000,000 for Science, Technology, Engineering, and Mathematics Engagement.

Space Grant Program.—The agreement includes $54,500,000 for the Space Grant Program; directs that these amounts be allocated to State consortia for competitively awarded grants in support of local, regional, and national STEM needs; and directs that all 52 participating jurisdictions be supported at no less than $860,000 each.

Established Program to Stimulate Competitive Research (EPSCoR).—The agreement includes $26,000,000 for EPSCoR.

Minority University Research and Education Project (MUREP).—The agreement includes $43,000,000 for MUREP and continues direction contained in the explanatory statement accompanying Division B of Public Law 116–260.

STEM Education and Accountability Projects (SEAP).—The agreement includes $13,500,000 for SEAP. The agreement also reflects strong support for the Competitive Program for Science, Museums, Planetariums, and NASA Visitors Centers known as ''Teams Engaging Affiliate Museums and Informal Institutions program (TEAM II).''

SAFETY, SECURITY AND MISSION SERVICES

The agreement includes $3,020,600,000 for Safety, Security and Mission Services.

Information Technology.—The agreement provides up to $612,200,000 for information technology.

Accounting System.—The agreement maintains the prohibition described in the explanatory statement accompanying Division B of Public Law 116–260 with regard to NASA's accounting system.

Community Projects/Special Projects.—Within the appropriation for Safety, Security and Mission Services, the agreement provides funds for the following projects:

NASA COMMUNITY PROJECTS/NASA SPECIAL PROJECTS

Recipient	Project	Amount
Atchison Amelia Earhart Foundation	Development of New Programs at the Amelia Earhart Hangar Museum and Memorial	$1,000,000
Bowie State University	Hydroponics Research Laboratory Initiative	$1,000,000
Boys & Girls Club of Hawai'i	STEM Education Initiative Expansion	$80,000
Educate Maine	Satellite Chipset Computer Science Learning Module	$400,000
Lincoln University	Food for Human Spaceflight Sustainability	$160,000
Louisiana State University, National Center for Advanced Manufacturing	Aerospace Systems and Technology Development	$5,000,000
McAuliffe-Shepard Discovery Center	McAuliffe-Shepard Discovery Center Planetarium Enhancements	$348,000
Montgomery County Community College	STEM Learning Center Installation	$70,000
Norwich University	NASA Research and Technology Development for Cyber Architecture	$250,000
Ohio Aerospace Institute	Research Center Partnership Initiative	$1,500,000
Oklahoma State University	6G Innovations	$1,000,000
Oklahoma State University	Rapid Assured Fully Transparent Integrated Circuit Platform Project	$1,200,000
Rancho Cucamonga Public Library	Second Story and Beyond Project	$1,000,000
Rush University Medical Center	REACH for Information Technology Training	$696,000
Springfield Museums Corporation	Springfield Science Museum Upgrades	$750,000
University of Connecticut	University of Connecticut Ecological Modeling Institute	$2,000,000
University of Delaware/Delaware State University	The Delaware Space Observation Center Enhancement	$900,000
University of Hawai'i	'Imiloa Astronomy Center Expansion and Upgrades	$1,000,000
University of New Hampshire	University of New Hampshire Magnetometer Research and Education Facility	$501,000
West Virginia University	Spacecraft Development Facility	$800,000
Wheeling University Challenger Learning Center	Update Technology at the Challenger Learning Center and Support Seasonal Educational Programming	$3,000,000

CONSTRUCTION AND ENVIRONMENTAL COMPLIANCE AND RESTORATION

The agreement includes $410,300,000 for Construction and Environmental Compliance and Restoration (CECR). The agreement also includes the request for Construction of Facilities for Science, Exploration, and Space Operations.

Unmet Construction Needs.—The gulf between the amount NASA requested for construction activities and the cost of the projects NASA has identified as shovel-ready and needed continues to be vast and disappointing. NASA is directed to brief the Committees within 180 days of the date of enactment of this Act on implementation of the recommendations in the September 2021 Inspector General's report, ''NASA Construction of Facilities.'' NASA is further directed to include, in priority order, no fewer than

the top 10 construction projects that are needed but unfunded in its fiscal year 2023 budget request, along with any unmet repairs that result from damage from wildfires, hurricanes, or other natural disasters.

OFFICE OF INSPECTOR GENERAL

The agreement includes $45,300,000 for the Office of Inspector General.

ADMINISTRATIVE PROVISIONS

(INCLUDING TRANSFERS OF FUNDS)

NASA is directed to provide any notification under section 20144(h)(4) of title 52, United States Code, to the Committees.

The agreement permits various transfers of funds.

Not more than 20 percent or $50,000,000, whichever is less, of the amounts made available in the current-year CECR appropriation may be applied to CECR projects funded under previous years' appropriation acts. Use of current-year funds under this provision shall be treated as a reprogramming of funds under section 505 of this Act and such funds shall not be available for obligation except in compliance with the procedures set forth in that section.

The agreement also includes a provision providing NASA the authority to combine amounts from one or more of its Science, Aeronautics, Space Technology, Exploration, and Space Operations appropriations with amounts from the STEM Engagement appropriation to jointly fund discrete projects or activities, through contracts, grants, or cooperative agreements, that serve these purposes. NASA is directed to provide notification of the Agency's intent to award a contract, grant, or cooperative agreement that would be jointly funded under this authority, no less than 15 days prior to award.

NATIONAL SCIENCE FOUNDATION

The agreement includes $8,838,000,000 for the National Science Foundation (NSF). The agreement does not adopt the amounts provided in the prefatory matter of the House report and instead provides further direction regarding program levels cited within the appropriate NSF Divisions including Research and Related Activities, Major Research Equipment and Facilities Construction, Education and Human Resources, Agency Operations and Award Management, National Science Board, and Office of Inspector General.

Broadening Participation.—The agreement includes increases that are aimed to support Broadening Participation in STEM programs. Global leadership requires diverse ideas and NSF is encouraged to ensure the Foundation partners with communities with significant populations of underrepresented groups within STEM research and education as well as the STEM workforce.

Graduate Research Fellowship Program (GRFP).—In lieu of House language regarding the consolidation of GRFP, the bill includes language allowing the transfer of up to $148,000,000 from Research and Related Activities to Education and Human Resources to permit NSF to consolidate the GRFP. The agreement also provides $148,000,000 for GRFP within Education and Human Resources.

RESEARCH AND RELATED ACTIVITIES

The agreement includes $7,159,400,000 for Research and Related Activities (R&RA).

Technology, Innovation, and Partnerships.—The agreement supports the new Directorate for Technology, Innovation, and Partnerships (TIP) within R&RA that builds upon and consolidates existing NSF programs. TIP serves as a cross-cutting platform to advance science and engineering research leading to breakthrough technologies, to find solutions to national and societal challenges, to strengthen U.S. global competitiveness, and to provide training opportunities for the development of a diverse STEM workforce. NSF is encouraged to remember when funding projects within TIP that good ideas and high-quality research are not bound to certain geographical areas but exist across the country.

Climate Science and Sustainability Research.—The agreement provides no less than $900,000,000 for climate science and sustainability research through the U.S. Global Change Research Program and Clean Energy Technology.

Artificial Intelligence (AI).—The agreement provides no less than $636,000,000 for AI research. NSF is encouraged to increase the pipeline of students graduating with AI and data literacy through partnerships and cooperative agreements. In addition, the agreement reiterates House language to encourage NSF to continue its efforts in workforce development for AI and other emerging technologies, with focused outreach to community colleges, Historically Black Colleges and Universities, Hispanic Serving Institutions, Tribal Colleges and Universities, and other Minority Serving Institutions.

Quantum Information Science.—The agreement includes $220,000,000 for quantum information science research, including $170,000,000 for activities authorized under section 301 of the National Quantum Initiative Act (Public Law 115–368) and $50,000,000 for National Quantum Information Science Research Centers, as authorized in section 302 of Public Law 115–368.

Historically Black Colleges and Universities Excellence in Research (HBCU–EiR).—The agreement provides no less than $22,000,000 for the HBCU–EiR program.

Infrastructure Investments.—With NSF's 10 Big Ideas as a focusing tool, the funding for the fundamental scientific disciplines should be maintained. Unless otherwise noted, within amounts provided, NSF is directed to allocate no less than the fiscal year 2021 enacted levels to maintain its core research levels, including support for existing scientific research laboratories, observational networks, and other research infrastructure assets, such as the astronomy assets, the current academic research fleet, federally-funded research and development centers, and the national high performance computing centers.

Scientific Facilities and Instrumentation.—The agreement supports the continuation of operations at the Daniel K. Inouye Solar Telescope (DKI–ST), the Gemini Observatory, the Very Long Baseline Array (VLBA) receivers, and the Center for High Energy X-Ray Science (CHEXS), and provides no less than the fiscal year 2021 enacted funding levels for these facilities.

Green Bank Observatory (GBO).—The agreement supports NSF's effort to develop multi-agency plans at GBO and provides no less than the requested level to support operations and maintenance at GBO through multi-agency plans, or directly through the Foundation.

Established Program to Stimulate Competitive Research (EPSCoR).—The agreement provides no less than $215,000,000 for the EPSCoR States Program. Within the amount provided, no more than 5 percent shall be used for administration and other overhead costs. EPSCoR is designed to spur innovation and strengthen the research capabilities of institutions that are historically underserved by Federal research and development funding.

Geography of Innovation.—NSF is encouraged to review its large funding initiatives and center mechanisms to assess what tools need to be put in place to ensure emerging research institutions, institutions in EPSCoR States, and Minority Serving Institutions are not only participants, but leading these large NSF investments, in line with NSF's commitment to a ''Geography of Innovation.'' NSF is directed to report to the Committees within 45 days of enactment of this Act on how the Foundation will assist these institutions to lead large funding initiatives and centers, including: Science and Technology Centers, Engineering Research Centers, Mid-Scale Research Infrastructure awards, Artificial Intelligence Centers, and other recurring or new center-level opportunities.

Innovation Corps.—The agreement provides no less than $40,000,000 for the Innovation Corps program to build on the successes of its innovative public-private partnership model. NSF is encouraged to facilitate greater participation in the program from academic institutions in States that have not previously received awards.

Regional Innovation Accelerators (RIA).—The agreement supports the creation of the RIA program, and NSF is encouraged to award at least one RIA in fiscal year 2022. RIAs will be transformative for many communities across the country, especially for communities within EPSCoR States.

Mid-scale Research Infrastructure.—The agreement provides no less than the fiscal year 2021 enacted level for the mid-scale research instrumentation program. NSF is encouraged to make no fewer than two mid-scale awards to EPSCoR States.

Harmful Algal Blooms.—The agreement includes no less than the fiscal year 2021 level for harmful algal bloom research activities as described in the House report.

Domestic Manufacturing.—In lieu of House report language regarding Industrial Innovation and Partnerships, NSF is encouraged to continue to support meritorious research on the U.S. steel industry, including through TIP programs.

International Ocean Discovery Program.—The agreement provides $48,000,000 for the International Ocean Discovery Program, equal to the fiscal year 2021 enacted level.

Cybersecurity Workforce.—NSF is encouraged to undertake a study to identify, compile, and analyze existing nationwide data and conduct survey research as necessary to better understand the national cyber workforce to build on to the NAS report titled, ''Information Technology and the U.S. Workforce.''

Online Influence.—NSF is encouraged to consider additional research efforts that will help counter influence from foreign adversaries on the Internet and social media platforms designed to influence U.S. perspectives, sow discord during times of pandemic and other emergencies, and undermine confidence in U.S. elections and institutions. To the extent practicable, NSF should foster collaboration among scientists from disparate scientific fields and engage other Federal agencies and NAS to help identify areas of research that will provide insight that can mitigate adversarial online influence, including by helping the public become more resilient to undue influence.

Astronomy.—The agreement recognizes the recent release by the National Academies of Sciences, Engineering, and Medicine (NAS) of the 2020 Decadal Survey in Astronomy and Astrophysics, ''Pathways to Discovery in Astronomy and Astrophysics for the 2020s.'' The agreement notes that NSF is currently assessing how to best implement the recommendations included in the 2020 Decadal Survey. NSF is expected to include the appropriate levels of support for recommended current and future world-class scientific research facilities and instrumentation in subsequent budget requests. NSF is also expected to support a balanced portfolio of astronomy research grants by scientists and students engaged in ground-breaking research.