Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
1	All NASA Centers	Argentina - National Commission on Space Activities (CONAE)	Extension of Framework Agreement Between the Government of the United States of America and the Government of the Argentine Republic on Cooperation in the Peaceful Uses of Outer Space	Umbrella/Framework Agreement (UM/FW)	This Agreement provides the parties with the foundation to needed to identify areas of mutual interest and seek to develop cooperative programs or projects, hereinafter referred to as Programs, in the exploration and peaceful uses of outer space and shall work closely together to this end. The agreement was signed on October 25, 2011 and entered into force on July 30, 2013 when the second of two dip notes was exchanged. The agreement will be in force for 10 years from July 30, 2013.	7/24/2023	7/30/2026
2	All NASA Centers	Canadian Space Agency (CSA)	Extension 10: Mars Exploration Program	Project-Specific Agreement (PSA)	Extension 10 of an existing Mars cooperation agreement.	12/20/2021	12/31/2027
3	All NASA Centers	Center for Technological Industrial Development (CDTI)	Agreement on Cooperative Activities Between NASA and the Center for Technological Industrial Development of Spain	Umbrella/Framework Agreement (UM/FW)	Umbrella/Framework Agreement (UM/FW): NASA Center: Mentioned different NASA Installations. Broad agreement between NASA and the Center for Technological Industrial Development of Spain (CDTI) that anticipates the negotiation of future agreements between NASA and Spanish agencies in a variety of fields in Space Operations, Space Science, Earth Science, Aeronautics Research, and Exploration Systems. The agreement specifically mentions space vehicle landing facilities and science and technology development programs. It also calls to the establishment of a group to discuss potential cooperative projects. The agreement is automatically extended each year. The expiration date of 2100 was picked because it was far in the future. The CDTI is known presently (August 2008) as the Centre for the Development of Industrial Technology (CDTI).	7/3/1992	12/31/2100
4	All NASA Centers	French National Aerospace Research Center (ONERA)	Umbrella Agreement between the National Aeronautics and Space Administration of the United States of America and the Office National d'Etudes et de Recherches Aérospatiales of France On Cooperation in Civil Aeronautics Research.	Umbrella/Framework Agreement (UM/FW)	The Parties shall identify areas of mutual interest and seek to develop new bilateral cooperative programs or projects, hereinafter referred to as "Programs," in civil aeronautics research and shall work closely together to this end.	4/6/2022	4/6/2032
5	All NASA Centers	Government of the Kingdom of Sweden	Amendment and Extension 1 of U.S./Sweden Framework Agreement - Exploration and Use of Outer Space for Peaceful Purposes	Umbrella/Framework Agreement (UM/FW)	Amendment and Extension 1 of the Framework Agreement: U.S. and the Kingdom of Sweden agree to extend the duration of the agreement for 10 additional years, until October 14, 2025. Parties agree to amend the first sentence of Article 5.1 by replacing the word "national" with the word "applicable." Agreement between US and Sweden. Covers a multitude of civil space cooperation in Earth Science, Space Science, Biological and Physical Research, and other areas of mutual interest. Programs may be implemented using: spacecraft and space research platforms; scientific instruments onboard spacecraft and space research; sounding rocket and scientific balloon flights and campaigns; aircraft flights and campaigns; ground-based antennas for tracking and data acquisition; ground-based space research facilities; exchanges of scientific personnel; exchanges of scientific data; and education and public outreach activities. Swedish National Space Board (SNSB) is named as the Swedish implementing agency and NASA is named the US implementing agency.		10/14/2025

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
6	All NASA Centers	Indian Space Research Organization (ISRO)	NASA-Indian Space Research Organization (ISRO) Framework Agreement for Cooperation in the Exploration and Use of Outer Space for Peaceful Purposes	Umbrella/Framework Agreement (UM/FW)	Under the NASA-Indian Space Research Organization (ISRO) Framework Agreement, cooperative programs may be undertaken in the following areas: Earth science, observation, and monitoring: Space Science: Exploration systems; Space operations; and other relevant areas of mutual interest(review agreement for more details regarding what cooperation may be used when implementing)	2/1/2008	1/1/2100
7	All NASA Centers	National Centre for Space Studies (CNES)	Framework Agreement between U.S. Govt. and the French Govt. for cooperative activities in the Exploration and Use of Outer Space for Peaceful Purposes.	Umbrella/Framework Agreement (UM/FW)	Framework Agreement between U.S. Govt. and the French Govt. for cooperative activities in the Exploration and Use of Outer Space for Peaceful Purposes. NASA/CNES/NOAA are identified as implementing agencies. Agreement Signatories: Administrator Michael Griffin of the National Aeronautics and Space Administration (NASA) signed for the United States and Minister Francois Goulard of the Ministry for Higher Education and Research signed for France. Dipnote signed by the Department of State on 4/2/08, referring to the Embassy of France's note No. 505 dated 3/14/2008. Framework Signature Date: 1/23/2007; Entry into Force Date: 4/2/2008; Expiration Date: 4/2/2018.	1/23/2007	4/2/2100
8	All NASA Centers	National Institute for Aerospace Technology (INTA)	Agreement on Cooperative Activities Between NASA and the National Institute For Aerospace Technology of Spain	Umbrella/Framework Agreement (UM/FW)	Broad agreement between NASA and the National Institute for Aerospace Technology of Spain (INTA) to consider cooperation in a variety of fields in Space Science, Earth Science, Aeronautics Research, and Exploration Systems. The agreement also establishes a group to discuss potential cooperative projects in the identified areas. The agreement is automatically extended each year. The expiration date of 2100 was picked because it was far in the future.	12/2/1991	12/31/2100
9	All NASA Centers	Saudi Arabia - The King Abdulaziz City for Science and Technology (KACST)	Framework Agreement Between the Government of the United States of America and the Government of the Kingdom of Saudi Arabia on Cooperation in Aeronautics and the Exploration and Use of Airspace and Outer Space for Peaceful Purposes	Umbrella/Framework Agreement (UM/FW)	Cooperation between the Parties in civil aeronautics research and the exploration and use of outer space for peaceful purposes in areas of common interest and on the basis of equality and mutual benefit.	7/15/2024	1/17/2035
10	Ames Research Center (ARC)	Agency for Science, Innovation and Technology (MITA)	Amendment and Extension 2: Reimbursable Space Act Agreement Between the Agency for Science, Innovation and Technology (MITA) and NASA for Participation in the National Aeronautics And Space Administration International Internship Program	Project-Specific Agreement (PSA)	Amendment and Extension 2: This Agreement enables MITA's participation in the NASA International Internship Program (NASA I2), designed to provide a collaborative environment where U.S. and foreign student interns interact and work alongside each other on research opportunities.	3/9/2020	12/31/2025
11		Australia - University of New South Wales	Agreement between NASA of the United States of America and the University of New South Wales in relation to the Australian Research Council Centre of Excellence for Quantum Computation and Communication Technology in the Advancement of Quantum Technologies	Project-Specific Agreement (PSA)	Under this Agreement, the Parties seek to engage in fundamental research related to understanding the basic mechanisms of quantum computing. Both Parties will utilize their respective capabilities and expertise to advance the understanding of quantum technologies and its potential applications. Specifically, joint practical and theoretical research will be conducted to further understand the resource and robustness requirements necessary to demonstrate advantages of quantum technologies. The Parties will also explore error mitigation techniques to improve the robustness of quantum technologies, and will explore combinations of quantum algorithms and quantum protocols that may support quantum cloud computing.	10/16/2024	9/19/2029

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
12	Ames Research Center (ARC)	Belgium - Von Karman Institute for Fluid Dynamics (VKI)	Non-Reimbursable Space Act Agreement between the National Aeronautics and Space Administration and the Von Karman Institute for Fluid Dynamics for Cooperation on Entry Systems Modeling Research	Project-Specific Agreement (PSA)	Under this Agreement, the NASA and VKI intend to focus on joint fundamental research related to four ESM research topics: material response, aerothermodynamics, radiation, and magnetohydrodynamics. The Parties intend to conduct this joint research through a series of joint discussions, tutorials, training, and data and software model exchanges, resulting in joint ESM related technical publications. No hardware is anticipated to be exchanged or tested under this Agreement.	6/8/2022	6/8/2027
13	Ames Research Center (ARC)	Brazil - Brazilian Space Agency (AEB)	Reimbursable Space Act Agreement Between NASA and the Brazilian Space Agency (AEB) for Participation in NASA International Internship Project (NASA I ²)	Project-Specific Agreement (PSA)	This Reimbursable Space Act Agreement will facilitate the Brazilian Space Agency's (AEB) participation in the NASA International Internship Project (NASA I^2) designed to provide a collaborative environment where U.S. interns or fellows can interact and work alongside with international peers on science or engineering research opportunities.	12/20/2023	12/31/2028
14	Ames Research Center (ARC)	ESA - European Space Agency	NASA-ESA Cooperation on Fundamental Aerothermodynamic Studies in Support of Potential Future Ice Giant Missions	Project-Specific Agreement (PSA)	The study of the heat exchange between gases and solids, especially during hypervelocity entry through planetary atmospheres, is necessary in designing entry systems including thermal protection system. That involves prediction of the heating environment encountered by Earth or planetary entry vehicles. These studies establish aerothermodynamic heating sensitivity during entry by exploring sensitivity to the atmospheric composition of minor species in giant planet atmospheres, especially trace gases such as methane that, if present, could lead to significant increases in hypervelocity shock-layer radiation during entry. Results may lead to generating aerothermodynamic science data for characterizing aerothermal design environments for safer mission design to giant planets.	8/4/2023	9/18/2028
15	Ames Research Center (ARC)	ESA - European Space Agency	NASA-ESA Letter of Agreement on GeneLab Open Data Sharing	Project-Specific Agreement (PSA)	Under this agreement, NASA will train ESA data curators how to upload ESA ISS flight experiment data to NASA's open science data repository GeneLab, in furtherance of NASA's open science data goals.	11/4/2024	12/31/2030
16	Ames Research Center (ARC)	Germany - German Aerospace Center (DLR)	Implementing Arrangement Between the National Aeronautics and Space Administration and the German Aerospace Center for Cooperation on the Transformation of Air Transportation Operations	Implementing Arrangement/Agreement (IA)	The ATM system across the globe is facing new challenges as novel vehicle types, missions, and operations enter the market. At the same time, airspace systems also must contend with growth in traditional operations as commercial airline market demand, business aviation, and general aviation continue to expand. The new entrants include thin-haul aircraft, various sizes of unmanned aerial systems (UAS), urban air mobility (UAM) operations, supersonic transport, and an increasing need to facilitate space access. Foundational research and collaboration are required to explore the best manner to develop a future airspace system that enables this diverse set of operations in a scalable, flexible, and resilient manner that ensures safety and security for both existing and new users. Under this Arrangement, NASA and DLR researchers will design algorithms as well as conduct fast-time simulations to gain understanding of new methods and concepts to address the challenges of a future ATM system, which will accelerate development of concepts enabling a diverse set of new entrants and growth in traditional aviation across both European and NASA research projects. NASA and DLR will develop a collaborative project plan that will enable joint research and will leverage concepts and technologies developed at the respective agencies.	3/30/2020	1/31/2026

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
17	Ames Research Center (ARC)	Germany - German Aerospace Center (DLR)	Extension of Implementing Arrangement (IA) Between NASA and the German Aerospace Center (DLR) for Collaboration on Fundamental Studies of Combined Aerothermal-Mechanical Erosion	Implementing Arrangement/Agreement (IA)	This IA falls under the DLR Framework Agreement. The Parties will perform collaborative fundamental studies of the mechanical erosion of materials due to atmospheric dust during entry at Mars. The data generated will be used to construct and validate computational codes useful for the design of entry systems to safely deliver landers for both robotic science missions and human missions. The experimental campaign will be jointly designed by NASA and DLR, and then executed by DLR. This Implementing Arrangement will allow for the ability to model and predict erosion due to dust, which is critical to mission design and assurance for future Mars missions.	3/27/2024	3/28/2027
18	Ames Research Center (ARC)	India - Indian Space Research Organization (ISRO)	Reimbursable Agreement between ISRO and NASA for Hypervelocity Testing	Project-Specific Agreement (PSA)	NASA to provide reimbursable hypervelocity testing to ISRO.	12/10/2024	12/10/2029
19	Ames Research Center (ARC)	International Space University (ISU)	Reimbursable Space Act Agreement between the International Space University & the National Aeronautics and Space Administration of the United States of America for Participation in the NASA International Internship Project and NASA Visitor Exchange Program	Project-Specific Agreement (PSA)	This Agreement enables ISU graduate students, on a cost reimbursable basis, to be nominated by ISU and selected by NASA mentors for NASA internships of 12 to 24 weeks.	9/23/2020	12/31/2025
20	Ames Research Center (ARC)	Italian Space Agency (ASI)	Implementing Arrangement (IA) Between NASA and ASI for Associate Membership in the NASA Solar System Exploration Research Virtual Institute (SSERVI)	Implementing Arrangement/Agreement (IA)	Implementing Arrangement (IA) to enable ASI to join the NASA Solar System Exploration Research Virtual Institute (SSERVI) as an Associate Member. SSERVI is a virtual institute managed by the NASA Ames Research Center with a mission of advancing the field of solar system science as applied to human exploration. NASA and ASI will provide scientific and engineering expertise to enhance and propel the broad objectives of solar system science.	6/14/2017	6/14/2027
21	Ames Research Center (ARC)	Korea Aerospace Research Institute (KARI)	Agreement Between NASA and Korea Aerospace Research Institute (KARI) for Associate Membership in the NASA Solar System Exploration Research Virtual Institute (SSERVI)	Project-Specific Agreement (PSA)	Provides for KARI associate membership in the SSERVI, a virtual science institute based at Ames for the study of the moon and planetary bodies.	12/29/2015	12/29/2025
22	Ames Research Center (ARC)	Korea Aerospace Research Institute (KARI)	2nd Amendment to Reimbursable Space Act Agreement between KARI and NASA for Participation In the NASA International Internship Program (NASA I^2)	Implementing Arrangement/Agreement (IA)	This 2nd Amendment facilitates KARI's continued participation in NASA I2, which is managed by ARC for the agency. KARI will submit student nominations to NASA for possible placement in spring, summer, or fall internships at a NASA field center.	1/28/2020	12/31/2025
23	Ames Research Center (ARC)	Luxembourg - Ministry of Economy, Luxembourg Space Agency	REIMBURSABLE SPACE ACT AGREEMENT BETWEEN THE LUXEMBOURG SPACE AGENCY FOUNDATION OF THE GRAND DUCHY OF LUXEMBOURG AND THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION OF THE UNITED STATES OF AMERICA FOR PARTICIPATION IN THE NASA INTERNATIONAL INTERNSHIP PROJECT	Project-Specific Agreement (PSA)	This Reimbursable Space Act Agreement (hereinafter referred to as "Agreement") will be for the purpose of facilitating LSA's participation in the NASA International Internship Project (hereinafter referred to as "NASA I2") which facilitates international collaboration through education and shared experiences in space exploration, science, and aeronautics.	10/14/2024	12/31/2029

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
24		Mexico - Agencia Espacial Mexicana (AEM)	Amendment 2; Reimbursable Space Act Agreement Between NASA and the Agencia Espacial Mexicana (AEM) for Participation in the NASA International Internship Program (NASA I^2)	Project-Specific Agreement (PSA)	Amendment 2 - This amendment to the agreement enables Agencia Espacial Mexicana's (AEM) continued participation in the NASA International Internship Project (NASA I^2) by another 5 years. It is designed to provide a collaborative environment where U.S. interns or fellows (university undergraduate & students) (university graduate students) can interact and work alongside international peers on research opportunities.	12/1/2023	12/31/2028
25	Ames Research	New Zealand - Ministry of Business, Innovation and Employment (MBIE)	Reimbursable Space Act Agreement Between NASA and the Ministry of Business, Innovation and Employment of New Zealand for Participation in the NASA International Internship Project (NASA I^2)	Project-Specific Agreement (PSA)	The Ministry of Business, Innovation and Employment (MBIE) will participate in the NASA International Internship (NASA I^2) Project.	12/20/2023	12/31/2028
26		Sweden - Swedish National Space Agency (SNSA)	Amendment 2: Reimbursable Space Act Agreement Between NASA and the Swedish National Space Agency (SNSA) for Participation in The National Aeronautics and Space Administration International Internship Program (NASA I^2)	Project-Specific Agreement (PSA)	This amendment extends the agreement by 5 years and facilitates SNSA's participation in NASA I^2. SNSA will submit student nominations to NASA for possible placement in spring, summer, or fall internships at a NASA field center. This Reimbursable Space Act Agreement will be for the purpose of facilitating SNSA's participation in the National Aeronautics and Space Administration International Internship Program designed to provide a collaborative environment where U.S. interns or fellows can interact and work alongside with international peers on research opportunities. Agreement will be for the purpose of facilitating SNSB's participation in the National Aeronautics and Space Administration International Internship Program designed to provide a collaborative environment where U.S. interns or fellows can interact and work alongside with international peers on research opportunities.	8/24/2022	12/31/2025
27		Swiss International Air Lines Limited	Amendment to Nonreimbursable Space Act Agreement Between NASA and Swiss International Air Lines Limited on Research Studies for Improvement of Aviation Safety and Assuring Safe and Effective Human Systems Integration	Project-Specific Agreement (PSA)	Desiring to continue cooperation related to research studies for improvement of aviation safety and ensuring safe and effective human systems integration, under the Agreement signed on February 9, 2016;	3/16/2021	12/31/2025
28		United Kingdom - easyJet Airline Company, Ltd.	NASA-easyJet Safety Dashboard	Project-Specific Agreement (PSA)	Research regarding simulation, information processing, and computational modeling of aviation safety. Collaboration between the Parties will help to assess and refine techniques for the analysis of aircraft and human performance data, automate the analyses of flight safety data, and merge data into a demonstration dashboard for in-time safety assessments. These results are expected to lead to an improved understanding of what factors influence flight crew performance and how flight crew performance changes relate to aircraft performance.	7/19/2023	7/19/2028

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
29	Ames Research Center (ARC)	United Kingdom - Imperial College of Science Technology and Medicine (Imperial College)	NON-REIMBURSABLE SPACE ACT AGREEMENT BETWEEN THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION AND IMPERIAL COLLEGE OF SCIENCE, TECHNOLOGY AND MEDICINE FOR COMPUTATIONAL FLUID DYNAMICS ANALYSIS AT LOW REYNOLDS NUMBERS	Project-Specific Agreement (PSA)	The purpose of this Agreement between NASA and Imperial is to exchange, analyze and compare aerodynamic geometries. The Parties will exchange aerodynamic geometries (e.g. airfoils) in the public domain, and conduct their own aerodynamic analyses, after which the results can be compared to learn more about the effect of performance predictions between the codes. Both NASA and Imperial will use individual computational fluid dynamics (CFD) expertise to analyze the geometries. NASA and Imperial have state-of-the-art CFD capabilities that can provide more insight into low-Reynolds number flow simulations. Aerodynamic research for low-Reynolds number flows is still not very developed and is crucial to the exploration of rotorcraft flight in the Mars atmosphere, small-scale drones on Earth, or high-altitude long-endurance vehicles in the Earth atmosphere. In particular, Imperial's CFD method, Direct Numerical Simulation (DNS), models the Navier-Stokes equation without any assumptions (or modeling) of turbulence; the entire flow is resolved down to the smallest scales. NASA uses Reynolds-Averaged Navier-Stokes (RANS) equations (e.g. OVERFLOW) mostly. The analyses comparison will be invaluable to performance predictions.	3/18/2024	3/26/2026
30	Ames Research	United Kingdom - United Kingdom Space Agency (UKSA)	Agreement between the National Aeronautics and Space Administration and the Secretary of State for Science, Innovation, and Technology Acting through the United Kingdom Space Agency for Cooperation on the HelioSwarm Observatory.	Project-Specific Agreement (PSA)	The HelioSwarm Observatory mission is part of NASA's Explorers Program and is expected to transform understanding of space plasma turbulence using an innovative mission concept to collect data on multiple physical scales simultaneously. To accomplish this, the HelioSwarm Observatory is expected to be composed of 8 node spacecraft and 1 hub spacecraft. Each node has an identical instrument suite consisting of a Faraday cup, a fluxgate magnetometer (MAG), and a search coil magnetometer. The Imperial College London (ICL) is planning to provide the MAG instruments, ground support, and personnel necessary to support the instruments and the HelioSwarm Observatory science team.	8/2/2024	3/31/2033
31		Victorian Space Science Education Center (VSSEC)	Amendment 2: Reimbursable Agreement for Australia's participation in NASA 1 THE NASA International Internship Project.	Project-Specific Agreement (PSA)	Amendment 2: VSSEC was designated by the Australian Government to manage Australia's participation in this program on its behalf. This Reimbursable Space Act Agreement will be for the purpose of facilitating VSSEC's participation in the National Aeronautics and Space Administration International Internship Program designed to provide a collaborative environment where U.S. interns or fellows can interact and work alongside with international peers on research opportunities.	12/17/2019	12/31/2025
32	Ames Research Center (ARC),Armstrong Flight Research Center (AFRC)	Korea Aerospace Research Institute (KARI)	NASA-KARI Cooperation on Advanced Air Mobility	Implementing Arrangement/Agreement (IA)	Air transportation systems are facing new challenges as novel vehicle types, missions, and operations enter the market. NASA and KARI are undertaking field demonstrations for AAM capabilities in their respective countries. Collaboration between the two agencies is needed to develop requirements for an Advanced Air Mobility ecosystem and integration with Air Navigation Service Providers to enable this diverse set of operations in a scalable, flexible, and resilient manner that ensures safety and security for both existing and new users.	10/17/2022	10/17/2027

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
33		France - National Centre for Space Studies (CNES)	Implementing Arrangement for Joint Studies on Potential Lunar Cooperative Activities	Implementing Arrangement/Agreement (IA)	Enables studies on potential lunar cooperation as part of Artemis.	8/14/2024	8/13/2034
34	Ames Research Center (ARC),Headquarte rs (HQ)	Agencia Espacial Mexicana (AEM)	Letter of Agreement between NASA and AEM regarding cooperation on the AztechSat Constellation	Project-Specific Agreement (PSA)	This NASA-AEM letter of agreement under U.S. law is for cooperation on a constellation of AztechSat CubeSats, as a continuation of the technology demonstration on AztechSat-1 and also to assist a joint NASA-Department of Interior animal tracking effort.	3/25/2022	3/25/2027
35	Armstrong Flight Research Center (AFRC)	Canadian Space Agency (CSA)	Reimbursable Space Act Agreement Between NASA and CSA for Airborne Science Research Using the High Altitude Aerosols Water Vapour & Clouds (HAWC) Instruments	Project-Specific Agreement (PSA)	Under this Reimbursable Agreement, CSA will pay NASA to fly the HAWC instruments on the NASA ER-2 plane in the Fall 2023 timeframe	1/25/2023	1/25/2026
36	Armstrong Flight Research Center (AFRC)	Germany - German Aerospace Center (DLR)	Extension #3 to Implementing Arrangement (IA) Between NASA and the German Aerospace Center for Experimental Optical Methods Applied to Rotorcraft.	Implementing Arrangement/Agreement (IA)	The purpose of this extension is to continue this productive collaboration and to allow for in-person attendance at hover tests and optimization tests as well as to jointly report results. Under Framework Agreement between NASA and the German Aerospace Center on Cooperation IN Aeronautics and the Exploration and Use of Outer Space for Peaceful Purposes (signed 12/8/2010)	1/16/2025	1/31/2028
37		Norway - University of Bergen (UIB)	Reimbursable Space Act Agreement Between the National Aeronautics And Space Administration and the University of Bergen for the Airborne Lightning Observatory for the Fly's Eye Geostationary Lightning Mapper Simulator and Terrestrial Gamma-Ray Flashes Field Campaign	Project-Specific Agreement (PSA)	NASA will fly three UIB Instruments (FEGS, LIP, and BGO) on a NASA ER-2 plane during the ALOFT field campaign.	8/17/2022	8/17/2025
38	Armstrong Flight Research Center (AFRC),Headquart ers (HQ)	Finland - Finnish Meteorological Institute (FMI)	UAM Forest Fire operations	Project-Specific Agreement (PSA)	NASA and FMI will coordinate on UAM forest fire operations	3/8/2023	3/4/2027
39		Brazilian Space Agency (AEB)	Implementing Arrangement (IA) for Cooperation on the Scintillation Prediction Observations Research Task (SPORT)	Implementing Arrangement/Agreement (IA)	Collaborative CubeSat activity with Brazilian Space Agency (AEB) to study ionospheric phenomena. Will launch via CubeSat Launch Initiative.	3/18/2019	12/31/2025

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40		Canadian Space Agency (CSA)	Extension/Amendment 1: Implementing Arrangement (IA) Between NASA and Canadian Space Agency (CSA) on the Loan of Space Shuttle Equipment	Implementing Arrangement/Agreement (IA)	Extension/Amendment 1: Implementing Arrangement (IA) Between NASA/CSA to renew and modify the current IA, amending the agreement for 1) the location of the equipment on loan, 2) the new point of contact, and 3) the commencement of activities and duration (Sections 1, 4, 8). Framework Agreement of September 9, 2009, governs this Implementing Arrangement between NASA/CSA on the loan of Space Shuttle Equipment.	10/2/2017	10/2/2027
41		European Space Agency (ESA)	Jupiter Icy Moons Explorer (JUICE) Mission - UVS	Implementing Arrangement/Agreement (IA)	NASA will provide the Ultraviolet Spectrograph (UVS) instrument for the ESA JUICE Mission, as well as ground network support.	1/18/2017	6/30/2034
42		Germany - German Aerospace Center (DLR)	Implementing Arrangement between NASA and DLR for Cooperation on the Tacheles Cubesat on the Artemis II Mission	Implementing Arrangement/Agreement (IA)	Artemis II Cubesat	9/19/2024	9/19/2029
		IHI Aerospace Co., Ltd. (IA)	Non-Reimbursable Agreement between NASA and IHI Aerospace Co., Ltd. for Research in High-Temperature Plasma- Magnetic Coil Interactions	Project-Specific Agreement (PSA)	IHI Aerospace Co., Ltd. (IA), in conjunction with Kyushu University, have conducted high-fidelity research into high-temperature plasma and magnetic coil interactions for advanced propulsion. Both IA and NASA are investigating similar fundamental research areas with complimentary approaches that, if compared, may give more confidence to those approaches when they yield similar results. Working in parallel, with frequent correspondence, is expected to help the Parties develop a deeper understanding of high temperature plasma interactions with magnetic coils. As part of this collaboration, NASA and IA intend to share research data with the goal of better understanding pulsed high-temperature plasma interactions with magnetic coils.	9/21/2022	10/11/2025
44		Italy - Italian Space Agency (ASI)	Extension of the Agreement Between the National Aeronautics and Space Administration of the United States of America and the Italian Space Agency of the Italian Republic on Conducting a Preliminary Design Study of the Italian Space Agency's Proposed Lunar Surface Multi-purpose Habitation Module(s) for the Artemis Program	Project-Specific Agreement (PSA)	ASI and NASA will study concepts for an Italian-provided lunar habitation module as part of Artemis	6/14/2024	12/31/2026
45	George C. Marshall Space Flight Center (MSFC)	Japan Aerospace Exploration Agency (JAXA)	Memorandum of Understanding between the National Aeronautics and Space Administration of the United States of America and the Japan Aerospace Exploration Agency of Japan for Cooperation on JAXA CubeSats on Artemis I	Project-Specific Agreement (PSA)	This MOU covers launch and post-launch activities for the two JAXA CubeSats flying on Artemis I.	7/2/2021	7/2/2032
46	George C. Marshall Space Flight Center (MSFC)	Japan Aerospace Exploration Agency (JAXA)	Chromospheric LAyer Spectro- Polarimeter (CLASP) 2	Project-Specific Agreement (PSA)	Chromospheric LAyer Spectro-Polarimeter (CLASP) 2 is a solar physics experiment to be launched on a NASA sounding rocket, and is a follow-on to the highly successful Chromospheric Lyman-Alpha Spectro-Polarimeter (CLASP) sounding rocket mission of 2015.	12/28/2022	12/31/2032

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
47	Marshall Space	Space Research Institute (IKI), Russian Academy of Sciences (RAS)	Space Research Institute of the Russian Academy of Sciences (IKI): Cooperation on the ART-XC Instrument Onboard the Russian Spectrum Roentgen Mission (SPG)	Project-Specific Agreement (PSA)	NASA will provide four mirror modules for portions of science data from the Russian Instrument.	4/6/2013	12/31/2025
48	Marshall Space Flight Center	Swedish Institute of Space Physics (IRF),Swedish National Space Board (SNSB)	Jupiter Icy Moons Explorer (JUICE) Mission - Particle Environments Package (PEP)	Implementing Arrangement/Agreement (IA)	NASA and the Swedish National Space Board (SNSB) will collaborate on the development of the Particle Environment Package (PEP) of the Jupiter Icy-Moons Explorer (JUICE) mission. PEP is a plasma package with six sensors to characterize the plasma environment in the Jovian system. PEP shall measure positive and negative ions, electrons, exospheric neutral gas, thermal plasma, and energetic neutral atoms (ENAs) in the energy range from 0.001 eV to 1 MeV. PEP shall combine remote global imaging via ENAs with in-situ measurements, to address all scientific objectives of the JUICE mission relevant to particle measurements. Their work on the JUICE mission will be governed by the terms and conditions of the Framework Agreement between the Government of the United States of America and the Government of the Kingdom of Sweden for Cooperative Activities in the Exploration and Use of Outer Space for Peaceful Purposes, signed in Stockholm on October 14, 2005, and amended in Washington, on October 6, 2015.	9/20/2016	9/20/2034
49		United Kingdom Space Agency (UKSA)	Jupiter Icy Moons Explorer (JUICE) Mission - Particle Environments Package (PEP)	Project-Specific Agreement (PSA)	PEP is a plasma package with six sensors to characterize the plasma environment in the Jovian system. PEP will measure positive and negative ions, electrons, exospheric neutral gas, thermal plasma, and Energetic Neutral Atoms (ENAs) in the energy range from 0.001 eV to 1 MeV. PEP will combine remote global imaging via ENAs with in situ measurements, to address all scientific objectives of the JUICE mission relevant to particle measurements. PEP will seek answers for four overarching science questions: How does the co-rotating magnetosphere of Jupiter interact with the complex and diverse environment of Ganymede? How does the rapidly rotating magnetosphere of Jupiter interact with seemingly inert Callisto? What are the governing mechanisms and their global impact of release of material into the Jupiter magnetosphere from Europa and Io? How do internal and solar wind drivers cause such energetic, time-variable and multi-scale phenomena in the steadily rotating glant magnetosphere of Jupiter?	11/23/2015	6/30/2034
50	George C. Marshall Space Flight Center (MSFC)	University of Twente	SERVIR-ITC Capacity Building Cooperation	Project-Specific Agreement (PSA)	NASA SERVIR Program and the University of Twente Faculty of Geo- information and Science and Earth Observation (ITC) will cooperate in Earth science capacity building. ITC and SERVIR will jointly develop training and pair ITC faculty with SERVIR scientists to conduct research in food security and agriculture; water resources and water-related disasters; land cover and land use change; and weather and climate in SERVIR regions.	2/12/2018	2/11/2028

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
51	George C. Marshall Space Flight Center (MSFC),Goddard Space Flight Center (GSFC)	Italian Space Agency (ASI)	Implementing Arrangement (IA) Between NASA and Agencia Spaziale Italia (ASI) on the Imaging X-ray Polarimetry Explorer (IXPE) Mission	Implementing Arrangement/Agreement (IA)	Implementing Arrangement (IA) between NASA and the Italian Space Agency (ASI) cooperating on the Imaging X-ray Polarimetry Explorer (IXPE) Mission; and recalling terms of framework agreement between the Government of the United States of America and the Government of the Italian Republic of for cooperation in the Exploration and Use of Outer Space for Peaceful Purposes, signed March 19, 2013, and entered into force on February 11, 2016. IXPE is a Principal Investigator (PI)-managed, Small-class Explorer (SMEX) NASA Mission led by Dr. Martin C. Weisskopf at MSFC. The IXPE missions main objective is to understand the physics of the X-ray emission produced by neutron stars and black holes. IXPE will address this objective by imaging X-rays from celestial objects onto polarization-sensitive imaging X-ray detectors. This mission opens a new window on the Universe by extending X-ray polarization measurements to hundreds of objects. The IXPE observatory will consist of a spacecraft (S/C) bus and three X-ray mirror module assemblies/X-ray polarization-sensitive detector systems. NASA will have overall responsibility for the mission and will provide the in-house fabricated X-ray mirror modules. The polarization-sensitive focal plane detectors will be provided by ASI. These will be based on pioneering work on electron-tracking gas-pixel detectors carried out by IXPE Co-Investigators at INFN and INAF/IAPS.	6/20/2017	12/1/2026
52	Glenn Research Center at Lewis Field (GRC)	Australia - The University of Queensland	Amendment 2 -University of Queensland (UQ) Cavity Optomechanical Magnetometers	Project-Specific Agreement (PSA)	Amendment 2 - NASA and UQ are cooperating on ultraprecise sensing capabilities via microcavity optomechanics. The goal of this activity is to advance the development of ultra-sensitive sensor capability, beyond what is currently available. While NASA and UQ will interact in the above activities, the optimization of the cavity optomechanical and double-disk resonator architectures will be primarily performed by UQ. The selective testing for verification and optimization of performance will be done at NASA GRC. Amendment 1 - NASA GRC and researchers from the University of Queensland (UQ) have a shared interest in the field of cavity optomechanical magnetometry. The goal of this activity is to advance the development of ultrasensitive sensor capability, beyond what is currently available. The overall focus of this work will be on further enhancing the sensitivity primarily using double-disk resonators at two different size-scales. Accordingly, this effort will seek to apply cavity optomechanical magnetometers as magnetic sensors for applications and will perform proof-of-principle demonstrations of those applications. Successful development of cavity optomechanical magnetometers with outstanding sensitivity for measuring low flux fields would be of great benefit/interest for use in space science mission instruments. Applications of cavity optomechanical magnetometers to space research and communications will be performed during this collaboration. While NASA and UQ will interact in the above activities, the optimization of the cavity optomechanical and double-disk resonator architectures will be primarily performed by UQ. The selective testing for verification and optimization of performance will be done at NASA GRC.	12/9/2022	12/31/2025
53	Glenn Research Center at Lewis Field (GRC)	Austria - Rail Tec Arsenal (RTA)	NASA-RTA Austria - Propeller Icing Research	Project-Specific Agreement (PSA)	Through this partnership three geometrically scaled propellers of different sizes will be tested using the NASA GRC's IRT facility and the ACWT facility. This collaboration will include a common geometry (NACA 0012 airfoil model) to determine the consistency of the test conditions between the RTA ACWT and the NASA IRT. Following the collection of results, both Parties will make the data available to the public. The scaling methods explored through this Agreement will provide greater confidence that the data obtained from the subscale model is relevant to the full-scale reference vehicle thus improving aircraft safety from hazards such as inflight icing.	10/29/2024	10/29/2028

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
54	Glenn Research Center at Lewis Field (GRC)	Brazil - Embraer S.A.	Reimbursable Umbrella Agreement Between NASA and Embraer for Wind Tunnel Testing of Aircraft Configurations - Annex 1 GRC Icing Wind Tunnel Testing	Umbrella/Framework Agreement (UM/FW)	Performing an icing test to evaluate the behavior and performance of low power consumption ice protection systems in the wing slat regions of an Embraer commercial regional jet aircraft. The test will be used to assess the impact of the ice protection systems on power consumption for a variety of icing cloud conditions. Embraer will use an existing commercial aircraft model, EMBRAER ERJ 190-500 (E175-E2). EPR: \$736,263.00	12/13/2024	12/13/2026
	Glenn Research Center at Lewis Field (GRC)	Canada - Concordia University	Non-Reimbursable International Space Act Agreement between NASA and Concordia University for Suborbital Research and the Microgravity Technology Demonstration of an Ultrasonic Blade.	Implementing Arrangement/Agreement (IA)	Concordia has a proprietary custom excavation rig ("Test Rig") with flight heritage. NASA would like to test an ultrasonic excavation blade ("Test Article") in reduced gravity using the Test Rig. Data resulting from the flight would provide Concordia with validation of the Test Rig and novel datasets collected with alternative excavation tools. As part of this collaboration, NASA will attach the Test Article to the Test Rig for experimentation on a parabolic flight campaign provided through the NASA Flight Opportunities Program (FOP). The parabolic flight campaign will consist of two consecutive flights, each consisting of approximately 25-30 parabolic maneuvers to simulate lower gravity environments including micro-gravity, lunar gravity, and Martian gravity. Testing will be conducted during the brief windows of lower gravity environment to assess the impact of gravity on the tested phenomenon. Prior to the parabolic flight, the Parties intend to exchange hardware and lunar simulant for the purposes of integration and ground testing. Upon completion of the parabolic flight campaign, the Test Article will remain with NASA and the Test Rig will be returned by NASA to Concordia.	6/26/2023	7/28/2025
56	Glenn Research Center at Lewis Field (GRC)	Canada - Environment Canada	Amendment and Extension 2 - NASA- Environment Canada (EC) Agreement for Cooperative Activities Pertaining to Atmospheric Icing Research	Project-Specific Agreement (PSA)	The purpose of this extension is to continue icing safety research with ECCC The extension will allow for continued data sharing and coordination with the NRC and CIRA both of which have corresponding agreements.	1/5/2024	10/31/2027
	Glenn Research Center at Lewis Field (GRC)	Canada - National Research Council (NRC)	NASA-NRC lcing on High Lift Systems	Project-Specific Agreement (PSA)	The overall objective of this agreement is to obtain experimental ice shapes on a high-lift configuration in an icing wind tunnel and use these to validate simulated ice shapes from numerical models. The ice shapes generated from these validated numerical models are to be included as part of high Reynolds number tests at the National Transonic Facility (NTF) on the Common Research Model (CRM) in a high-lift configuration. This work will provide a database from which vehicle performance can be used as validation of Computational Fluid Dynamics (CFD) tools in predicting performance degradation due to icing.	3/27/2023	3/27/2027
	Glenn Research Center at Lewis Field (GRC)	Canada - National Research Council (NRC)	Amendment 4 - Agreement Between NASA and the National Research Council of Canada (NRCC) Concerning Cooperation in Icing Protection Systems Research	Project-Specific Agreement (PSA)	The purpose of this extension is to continue icing safety research with NRC. The extension will allow for continued data sharing and coordination with the ECC and CIRA both of which have corresponding agreements.	12/15/2023	10/31/2027
	Glenn Research Center at Lewis Field (GRC)	Canada - National Research Council (NRC)	NASA-NRC Atmospheric Characterization	Project-Specific Agreement (PSA)	The purpose of this agreement is to collect scientific flight data to characterize atmospheric conditions that are conducive to icing and lightning. Atmospheric conditions pose safety risks for all aircraft. Obtaining detailed images of ice particles, through instruments such as the Cloud Particle Imager (CPI) probe, will improve understanding of the evolution and development of cloud and ice particles, and provide a source of validation data for atmospheric models.	10/4/2024	10/4/2029

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	Glenn Research Center at Lewis Field (GRC)	Canada - National Research Council (NRC)	NASA-NRC Icephobic Materials	Project-Specific Agreement (PSA)	Assessment methods of icephobic materials vary across the research community, and there is no recognized standard method to quantify ice adhesion strength. This hinders the development and acceptance of icephobics as a practical ice protection solution. The proposed activity seeks to improve the efficiency of thermal anti-icing systems through the use of icephobic materials as a practical (and durable) solution for the new low power ice protection systems needed by Advanced Air Mobility (AAM) and electric vehicles to market by developing a means to assess icephobic coatings.	11/21/2024	3/27/2027
	Glenn Research Center at Lewis Field (GRC)	ESA - European Space Agency	Implementing Arrangement between NASA and ESA Concerning Materials International Space Station Experiment Sample Exchanges	Implementing Arrangement/Agreement (IA)	This agreement will enable NASA to exchange samples from the MISSE experiment series with ESA for them to conduct further testing with unique facilities that NASA doesn't have access to. ESA will then share the resulting data with NASA. The MISSE experiments have been designed to study the performance and durability of polymers, composites, and other space component materials in the low Earth orbit (LEO) space environment. By utilizing the unique capabilities ESA has to study these materials, both parties will develop additional knowledge about the embrittlement of flight materials after radiation exposure in the space environment, which can improve spacecraft design in the future.	6/17/2024	12/31/2030
	Center at Lewis	Italy - Italian Center for Aerospace Research (CIRA)	Extension No.1 - Nonreimbursable Space Act Agreement Between NASA and the Italian Center for Aerospace Research (CIRA) (Centro Italiano Ricerche Aerospaziali) SCpA on Supercooled Large Drop Icing Research	Project-Specific Agreement (PSA)	NASA and CIRA will pursue cooperation on the fundamental study of Super-cooled Large Drop (SLD) icing. The purpose of this agreement is to advance aircraft safety through collaborative research in the area of SLD icing. The joint research is intended to improve the ability to accurately characterize and simulate SLD phenomenon, and to determine the ability of existing test facilities to reproduce the various aspects of SLD conditions.	3/21/2023	10/31/2027
63		Imperial College of Science Technology and Medicine (Imperial College)	GEER Sensor Testing, Venus	Project-Specific Agreement (PSA)	This proposed NASA and Imperial collaboration expects to address engineering and scientific issues related to the development of seismic sensors capable of operating on the surface of Venus. NASA plans to expose Imperial's seismic sensors to Venus-like conditions in the Glenn Research Center's (GRC) Glenn Extreme Environments Rig (GEER) facility. The exposure of the seismic sensors should provide valuable information to the suitability of said sensor as a component of a potential future Venus seismometer.	9/1/2022	9/1/2028
	Glenn Research Center at Lewis Field (GRC),Jet Propulsion Laboratory (JPL)	ESA - European Space Agency	MOU Between NASA and ESA for Cooperation on the ExoMars Rosalind Franklin Mission	Project-Specific Agreement (PSA)	NASA provides landing engines, RHU and launch vehicle to ESA's mission.	5/16/2024	9/30/2033
65	Goddard Space Flight Center (GSFC)	Algeria - Government of Algeria (GOA)	Agreement between the National Aeronautics and Space Administration of the United States of America and the Sri Ramaswamy Memorial Institute of Science and Technology of India Concerning the Cooperation in the Aerosol Robotic Network.	Project-Specific Agreement (PSA)	The purpose of this arrangement is to establish a non-reimbursable agreement (the Agreement) between NASA and the Sri Ramaswamy Memorial Institute of Science and Technology (SRMIST) of India (individually a Party, or together the Parties) detailing the cooperation regarding AERONET. Specifically, the Parties plan to establish one or more Sun photometer stations at mutually agreed sites. The inclusion of these stations within the global AERONET will significantly improve the understanding of the properties and concentration of aerosols and clouds, and their impact on both global and regional scales. Another objective of this cooperation is to encourage scientists from both the United States and India to develop research programs using data collected by SRMIST and along with data available from the global AERONET database located at NASA's Goddard Space Flight Center (GSFC) in Greenbelt, Maryland.	10/22/2024	12/31/2034

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66	Flight Center	All Nations University College in Koforidua (ANUC) of Ghana	Cooperation in the Aerosol Robotic Network (AERONET) with All Nations University College in Koforidua, Ghana	Project-Specific Agreement (PSA)	Cooperative research on aerosols using sun photometers integrated into a global network.	9/17/2015	9/16/2025
67	Goddard Space Flight Center (GSFC)	Arab Academy for Science, Technology and Maritime Transport (AASTMT)	AERONET - Arab Academy for Science, Technology and Maritime Transport (AASTMT)	Project-Specific Agreement (PSA)	The scientific goals of the National Aeronautics and Space Administration (NASA) include a more detailed understanding of global atmospheric change phenomena, with a particular emphasis on climate research and the assessment of air quality. To these ends, NASA has established a global network of Sun photometers, and the Aerosol Robotic Network (AERONET) in cooperation with a wide range of international partner agencies and institutions. Sun photometers are used to measure water vapor and aerosol optical properties. AERONET provides the necessary science measurements and are essential for ground-based validation of aerosol, cloud, and other measurements taken by satellites.	11/17/2019	11/18/2100
68		Australia - University of New South Wales	Agreement between the National Aeronautics and Space Administration (NASA) and the University of New South Wales (UNSW) in relation to the Australian Research Council Centre of Excellence for the Quantum Computation and Communication Technology in the Advancement of Quantum Technologies.	Project-Specific Agreement (PSA)	NASA and UNSW use their respective capabilities and expertise to advance the understanding of quantum technologies and its potential applications. Joint practical and theoretical research is conducted to further understand requirements necessary to demonstrate advantages of quantum technologies.	10/16/2024	9/19/2029
		Belgium - Belgian Centre Spatiale de Liege (CSL)	Letter Agreement between the National Aeronautics and Space Administration (NASA) and the Centre de Liege Spatiale (CSL) for cooperation on the Carruthers Mission	Project-Specific Agreement (PSA)	Carruthers is expected to make a complete set of measurements needed to describe the fundamental physical processes occurring in the exosphere. This Agreement covers the expected Belgian contributions to Carruthers, specifically the alignment, testing, calibration, and evaluation of the performance of the GCI instrument.	6/1/2023	6/1/2033
		Bermuda Biological Station for Research, Inc.	Extension 2: Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	NASA and Bermuda Institute of Ocean Sciences (BIOS) will continue to cooperate on the operation of an AERONET sunphotometer station located at BIOS. NASA provides the equipment, and BIOS provides the site.	11/18/2019	11/18/2100
	Flight Center	Birla Institute of Technology, Extension Center Jaipur in Rajasthan	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	NASA provides AERONET instrument and support. Partner agrees to provide maintenance.	10/15/2019	10/31/2029
	Flight Center	Botswana - University of Botswana - Okavango Research Institute (UB- ORI)	Aerosol Robotic Network (AERONET) with the University of Botswana - Okavango Research Institute (UB-ORI)	Project-Specific Agreement (PSA)	NASA's scientific goals include a more detailed understanding of global atmospheric change phenomena, with a particular emphasis on climate research and the assessment of air quality. To these ends, NASA has established a global network of Sun photometers in cooperation with a wide range of international partner agencies and institutions. Sun photometers are used to measure water vapor and aerosol optical properties. AERONET provides necessary science measurements as well as being essential for ground-based validation of aerosol, cloud, and other measurements taken by satellites.	9/19/2018	9/19/2100

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73	Goddard Space Flight Center (GSFC)	Brazil - Brazilian Space Agency (AEB)	Implementing Arrangement Between the National Aeronautics and Space Administration of the United States of America and the Brazilian Space Agency of the Government of the Federative Republic of Brazil for Cooperation on Space Geodesy with Emphasis in Very Long Baseline Interferometry (VLBI)	Implementing Arrangement/Agreement (IA)	NASA and AEB set forth the respective responsibilities and terms and conditions under which they shall cooperate in the field of space geodesy with an emphasis on VLBI. NASA shall continue to permit the use of the NASA VLBI system and associated NASA and NASA-sponsored equipment installed at the Space Radio Observatory of the Northeast (Fortaleza) and coordinate and provide support for improvements of the Brazilian geodetic network and instrumentation. This IA will extend the NASA-AEB VLBI Agreement for 10 years, as of August 1, 2024.	1/24/2025	8/1/2034
74	Goddard Space Flight Center (GSFC)	Brazil - Ministry of Science, Technology and Innovation (MCTI)	Agreement on Cooperation in Science, Technology and Innovation between the National Aeronautics and Space Administration (NASA) of the United States of America and the Ministry of Science, Technology and Innovation (MCTI) of the Federative Republic of Brazil for Global Precipitation Measurement Ground Calibration and Validation	Project-Specific Agreement (PSA)	This agreement with the Ministry of Science, Technology and Innovation (MCTI) of Brazil allows for cooperation on calibration and validation for NASA's Global Precipitation Measurement (GPM) satellite. The agreement allows for NASA to use environmental data from Brazil's network of the National Center for Monitoring and Warnings of Natural Disasters (CEMADEN) for GPM cal/val. I will sign by correspondence for NASA, Minister Pontes of MCTI will sign for Brazil.	8/27/2021	8/26/2026
75	Goddard Space Flight Center (GSFC)	Brazilian Space Agency (AEB)	Amendment 2: Space Geodesy: Space Geodetic Research and Global Positioning System (GPS)	Project-Specific Agreement (PSA)	To establish one or more permanent Global Positioning System (GPS) ground stations in Brazil Implementing Arrangement under the Framework.	4/28/2021	4/30/2030
76	Goddard Space Flight Center (GSFC)	Bureau National D'Etudes Techniques et de Developpement (BNETD)	Agreement between the National Aeronautics and Space Administration and the Bureau National D?Etudes Techniques et de Developpement Concerning Cooperation on Space Geodetic Research	Project-Specific Agreement (PSA)	To establish cooperation in Earth observation and enhancement of the Global Geodetic Observing System (GGOS), development of space geodetic techniques, data sharing from local and global geodetic networks, improved analysis capability, and research on crustal motion, the interactions of the Earth systems, and natural hazards prediction and reduction.	7/12/2019	7/12/2029
77	Goddard Space Flight Center (GSFC)	Canada - Canadian Space Agency (CSA)	Implementing Arrangement Between the National Aeronautics and Space Administration (NASA) and the Canadian Space Agency (CSA) For Cooperation to Maintain a Network of Ground-Based Observatories	Project-Specific Agreement (PSA)	In this cooperation, NASA and CSA plan to share the responsibility to support the sustained operation of the U.SGreenland-Canada GBO network. NASA and CSA also plan to expand the science missions these GBOs support, the instrumentation the GBOs house, and the number of physical GBO sites in the broader U.SGreenland-Canada GBO network.	6/6/2023	6/8/2033
78	Goddard Space Flight Center (GSFC)	Canada - Canadian Space Agency (CSA)	Extension 2 to the Soil Moisture Active Passive (SMAP) Mission	Project-Specific Agreement (PSA)	SMAP is one of the first four tier one Earth science missions recommended by the U.S. National Research Council's Earth Science Decadal Survey. SMAP is designed to enable scientists to study Earth's water, energy and carbon cycles across the entire planet. SMAP expects to employ a dedicated spacecraft with an instrument suite that is planned for launch into a near-polar, sunsynchronous orbit.	7/10/2023	9/30/2029
79	Goddard Space Flight Center (GSFC)	Canada - University of Calagry	Agreement between the National Aeronautics and Space Administration and the Governors of the University of Calgary Concerning the Cooperation on the Development of Instrumentation for Deployment to a Network of Ground- based Observatories	Project-Specific Agreement (PSA)	To develop instrumentation to be deployed to a network of ground-based observatories for the purpose of scientific investigation into Earth's ionospheric-thermospheric system.	9/4/2024	9/4/2034

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
80	Goddard Space Flight Center (GSFC)	Canada - University of Western Ontario	Aerosol Robotic Network (AERONET)/ Micro Pulse Lidar Network(MPLNET)	Project-Specific Agreement (PSA)	Cooperative research on aerosols using sun photometers and lidars, including the Micro Pulse Lidar Network (MPLNET), integrated into a global network in cooperation with a wide range of international partner agencies and institutions.	5/2/2023	5/2/2033
81	Goddard Space Flight Center (GSFC)	Canadian Space Agency (CSA)	Flight of the Measurements of Pollution in the Troposphere (MOPITT) Instrument on Earth Observing System (EOS AM)/Terra	Project-Specific Agreement (PSA)	This MOU establishes the scientific and technical cooperation for the flight of the MOPITT instrument on the NASA EOS-AM1 polar orbiting platform of MOPITT to further cooperation in global change research by enabling the multidisciplinary study and long-term systematic monitoring of Earth, including research involving data from all Earth observing platforms in the International Earth Observing System.	11/15/1994	12/31/2025
82	Goddard Space Flight Center (GSFC)	Canadian Space Agency (CSA)	Amendment 1: Implementing Arrangement (IA): Modification to the Implementing Arrangement (IA) Between the NASA and the Canadian Space Agency (CSA) on the Origins, Spectral Interpretation, Resources Identification, and Security-Regolith Explorer (OSIRIS- REX) Mission	Implementing Arrangement/Agreement (IA)	This is an amendment 1 to the original Implementing Arrangement (IA) to add NASA delivery of electronic components to CSA. OSIRIS-REx is a NASA-led asteroid sample return mission currently planned for launch in 2016. It is scheduled to rendezvous with RQ36 in 2019 and the sample return capsule should land on Earth in 2023. CSA is expected to provide the OSIRIS-REx Laser Altimeter (OLA) and members of the science team, with the University of Calgary leading the OLA science team. NASA will transfer to CSA 4% by mass of the returned bulk sample and 4% by surface area of the returned contact pad sample. This is an IA under the Canada Framework Agreement.	9/25/2013	12/31/2025
83	Goddard Space Flight Center (GSFC)	Canadian Space Agency (CSA)	NASA-Canadian Space Agency (CSA) X- ray Astronomy Recovery Mission (XARM) Implementing Arrangement (IA)	Implementing Arrangement/Agreement (IA)	Canada will provide calibration testing for the X-ray Astronomy Recovery Mission (XARM) Resolve instrument. NASA and Canadian scientists on the NASA science team.	3/28/2018	12/31/2025
84	Goddard Space Flight Center (GSFC)	Canadian Space Agency (CSA)	Extension 1 to the Agreement Between NASA and Canadian Space Agency (CSA) for Cooperation on the James Webb Space Telescope (JWST) Program	Project-Specific Agreement (PSA)	Extension 1: This agreement provides for the cooperation between NASA and Canadian Space Agency (CSA) on the James Webb Space Telescope (JWST) mission. CSA will provide the Fine Guidance Sensor while NASA will build the spacecraft. The European Space agency (ESA) is also a mission partner and will launch the mission. Formerly the Next Generation Space Telescope (NGST). Original: This agreement provides for the cooperation between NASA and Canadian Space Agency (CSA) on the James Webb Space Telescope (JWST) mission. CSA will provide the Fine Guidance Sensor while NASA will build the spacecraft. The European Space agency (ESA) is also a mission partner and will launch the mission. Formerly the Next Generation Space Telescope (NGST).	12/11/2018	3/31/2027
85	Goddard Space Flight Center (GSFC)	Catholic University of Cameroon (CATUC)	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	NASA and Catholic University of Cameroon (CATUC) will cooperate on the operation of an AERONET sun photometer station and/or Lidar stations located at CATUC. CATUC will maintain the NASA-owned instrument, and NASA will provide calibration on that instrument.	4/28/2016	3/27/2026
86	Goddard Space Flight Center (GSFC)	Central Geophysical Observatory (CGO), Institute of Geophysics, Polish Academy of Sciences (PAS)	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	NASA and the Institute of Geophysics - Polish Academy of Sciences will cooperate on the operation of an AERONET sunphotometer station located at the Institute of Geophysics. NASA provides the equipment, and the Polish Academy of Sciences provides the site.	4/16/2020	4/16/2030
87	Goddard Space Flight Center (GSFC)	Centre for Geophysical Consultancy and Technological Transfer (CGCTT)	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	NASA and the Center for Geophysical Consultancy and Technological Transfer of Vietnam will cooperate on the AERONET program. NASA will provide equipment on loan which the partner will host at a mutually agreed location.	10/23/2015	10/22/2025

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
88	Goddard Space Flight Center (GSFC)	Centre for Remote Imaging, Sensing and Processing (CRISP), National University of Singapore	Agreement Between NASA and Centre for Remote Imaging, Sensing and Processing (CRISP), National University of Singapore (NUS) for Cooperation in the Aerosol Robotic Network (AERONET) and the Micro Pulse Lidar Network (MPLNET)	Project-Specific Agreement (PSA)	For the proposed arrangement, NASA and Centre for Remote Imaging, Sensing and Processing (CRISP), National University of Singapore (NUS) will establish one or more sun photometer and/or lidar stations at mutually agreed sites.	1/12/2021	1/30/2100
89	Goddard Space Flight Center (GSFC)	Colombia - Universidad Nacional de Colombia	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	NASA and Universidad Nacional de Colombia will continue to cooperate on the operation of an AERONET sunphotometer station located at mutually agreed sites in Colombia. NASA provides the equipment, and Universidad Nacional de Colombia provides the sites.	5/8/2020	6/26/2100
90	Goddard Space Flight Center (GSFC)	Dibrugarh University	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	Cooperative research on aerosols using sun photometers integrated into a global network. Dibrugargh University will host a NASA-owned instrument.	9/7/2016	9/6/2026
91	Goddard Space Flight Center (GSFC)	ESA - European Space Agency	Memorandum of Understanding between The National Aeronautics and Space Administration of the United States of America and the European Space Agency concerning the Laser Interferometer Space Antenna (LISA) Mission	Project-Specific Agreement (PSA)	Cooperation on ESA-led LISA mission, the first space observatory looking at gravitational waves, for which NASA will provide flight critical hardware and participate on the science teams.	5/7/2024	5/7/2044
92	Goddard Space Flight Center (GSFC)	ESA - European Space Agency	Extension No. 14 of Hubble Space Telescope (HST)/2.4-Meter Space Telescope (ST)	Project-Specific Agreement (PSA)	Extension to continue the cooperation between NASA and European Space Agency (ESA) on the HubbleSpace Telescope (HST). Provision of a space observatory for use by the international astronomy community to extend the sensitivity, resolving power, and spectral range of astronomical observations decisively beyond those achievable from Earth observatories.	12/18/2024	12/31/2029
93	Goddard Space Flight Center (GSFC)	European Organization for the Exploitation of Meteorological Satellites (EUMETSAT)	Extension 1 of the Memorandum of Understanding between the National Aeronautics and Space Administration of the United States of America and the European Organization for the Exploitation of Meteorological Satellites for Cooperation on the Global Precipitation Measurement Mission	Project-Specific Agreement (PSA)	NASA will, for GPM, GCOM-W1, and all other GPM Partners' microwave sensor data, provide access to all Instrument Level 1 data and GPM data in both near real-time and as research products in accordance with GPM Partner data policies; provide access to NASA data products in both near real-time and as research products; and provide access to an algorithm theoretical basis document for the GPM data (including brightness temperature products and precipitation products) that discusses the calibration approach, geolocation, and key aspects of the conversion from instrument counts to brightness temperature. NASA will, for Ground Validation (GV) data provide access to GV data collected by NASA and GPM Partners, subject to GPM Partners' data policies; and for data processing of GPM data, provide read/write tools that can be used to read or write GPM data and NASA data products; provide data browser tools for GPM data and NASA data products; and provide assistance in understanding, interpreting, and using GPM data and NASA data products. EUMETSAT will provide access to EUMETSAT Meteosat Second Generation satellite Spinning Enhanced Visible and Infrared Imager (SEVIRI) and for first generation Metop satellite Microwave Humidity Sounder (MHS) data as quickly as possible from the time of observation, preferably within 24 hours and with as small transmission latency as possible, for the production of standard research quality merged global radiometer products; and provide an algorithm.	7/15/2020	12/31/2029
94	Goddard Space Flight Center (GSFC)	European Space Agency	Memorandum of Understanding Concerning the Nancy Grace Roman Space Telescope Mission	Project-Specific Agreement (PSA)	Cooperative agreement for Roman Space Telescope; ESA to provide star-trackers.	7/22/2021	6/30/2034

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
95	Goddard Space Flight Center (GSFC)	European Space Agency (ESA)	Memorandum of Understanding (MOU) Between the European Space Agency (ESA) and NASA Concerning the Solar Orbiter Mission	Project-Specific Agreement (PSA)	The Solar Orbiter (SO) mission will be specifically devoted to solar and heliospheric physics, providing close-up and high-latitude observations of the Sun. The goal of the mission will be to explore the near-Sun environment to improve the understanding of how the Sun determines the environment of the inner solar system and, more broadly, generates the heliosphere itself, and how fundamental plasma physical processes operate near the Sun. SO is an international collaboration comprising many science instruments and suites, including one instrument and one sensor provided by NASA. ESA will provide the spacecraft, while NASA will provide the launch. The SO orbiter collaboration is taking place within ESA's Cosmic Vision line of missions within the Science Programme. The SO mission is currently planned for a 2017 launch date, with the end of the nominal mission set for 2024.	3/6/2012	12/31/2025
96	Goddard Space Flight Center (GSFC)	European Space Agency (ESA)	Amendment: Memorandum of Understanding (MOU) Between NASA and European Space Agency (ESA) Concerning the James Webb Space Telescope (JWST)	Project-Specific Agreement (PSA)	Amendment to the Memorandum of Understanding (MOU) Between NASA- ESA that provides cooperation on the James WebbSpace Telescope (JWST) Mission.	12/19/2019	3/31/2027
97	Goddard Space Flight Center (GSFC)	European Space Agency (ESA)	Amendment 6: Cooperation Under Solar Terrestrial Science Program (STSP) (CLUSTER I and SOHO)	Project-Specific Agreement (PSA)	Amendment 6: The Solar Terrestrial Science Programme (STSP) is composed of two missions: Cluster and SOHO. The combination will enhance the scientific return beyond the objectives of the individual missions. Cluster mission is to investigate small-scale structure in the Earth's plasma environment. Spacecraft SOHO - Solar and Heliospheric Observatory mission is developed by ESA to develop the launch of Ariane V. Expiration date was one year past nominal mission (Dec 2, 1998), but due to mission problems and loss of Cluster, agreement was in limbo until formally extended on Jan 16, 2003.	12/17/2021	12/31/2026
98	Goddard Space Flight Center (GSFC)	France - National Centre for Space Studies (CNES)	Implementing Arrangement between NASA and the Centre National D'Etudes Spatiales (CNES) on the Compton Spectrometer and Imager (COSI) Mission	Project-Specific Agreement (PSA)	Outlines responsibilities for cooperation on NASA-led COSI mission, including French contribution of prototype detector and science team participation.	1/31/2024	12/31/2032
99	Goddard Space Flight Center (GSFC)	France - National Centre for Space Studies (CNES)	Extension to the Agreement between NASA and the Centre National d'Etudes Spatiales on the Solar Terrestrial Observatory (STEREO)	Project-Specific Agreement (PSA)	Cooperation in the Solar Terrestrial Observatory (STEREO) mission, a mission to address the origin, evolution and interplanetary consequences of the coronal mass ejection.	3/27/2024	3/31/2028
100	Goddard Space Flight Center (GSFC)	Geophysical Institute of Peru (IGP)	Agreement between the National Aeronautics and Space Administration (NASA) of the United States of America and the Geophysical Institute of Peru (IGP) for Cooperation in the Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	NASA's scientific goals include a more detailed understanding of global atmospheric change phenomena with emphasis on climate research and the assessment of air quality. To these ends, NASA has established a global network of sun photometers, called AERONET (AErosol RObotic NETwork), in cooperation with a wide range of international partner agencies and institutions. These devices are used to measure water vapor and aerosol optical properties, which are necessary measurements as well as being essential for ground-based validation for aerosol measurements taken by satellites. For the proposed arrangement, the National Aeronautics and Space Administration (NASA) and the Geophysical Institute of Peru (IGP) will establish sun photometer stations at mutually agreed sites.	7/1/2021	7/1/2500

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
101	Goddard Space Flight Center (GSFC)	Geoscience Australia	Extension to the Agreement between NASA and Geoscience Australia for Cooperation in Space Geodesy	Project-Specific Agreement (PSA)	Extension to the agreement extends work for 10 years to continue work in space geodetic and satellite laser ranging work	2/1/2023	7/31/2032
102	Goddard Space Flight Center (GSFC)	Germany - German Aerospace Center (DLR)	Implementing Arrangement between the National Aeronautics and Space Administration (NASA) and the German Aerospace Center (DLR) for Cooperation on the Multi-Slit Solar Explorer (MUSE) Mission	Implementing Arrangement/Agreement (IA)	The primary goal of the MUSE mission is to investigate the causes of coronal heating and large-scale instability in the solar atmosphere, such as flares and coronal mass ejections, and gain insight into the basic plasma properties of the corona. NASA intends to launch MUSE no earlier than June 2027, and intends to share with DLR the MUSE scientific data. DLR intends to provide spectrograph gratings and a hollow cathode EUV source and support the instrument calibration and scientific investigation.	1/2/2024	1/2/2034
103	Goddard Space Flight Center (GSFC)	Germany - German Aerospace Center (DLR)	Amendment No.2, Implementing Arrangement (IA) Between NASA and the German Aerospace Center (DLR) for Cooperation on the Mars Organic Molecule Analyzer (MOMA) Instrument	Implementing Arrangement/Agreement (IA)	Adds additional responsibilities to the original cooperation on the MOMA instrument. MOMA will fly on the European Space Agency (ESA) ExoMars mission.	5/13/2024	11/30/2033
104	Goddard Space Flight Center (GSFC)	Ghana - All Nations University College in Koforidua (ANUC) of Ghana	Cooperation in the Aerosol Robotic Network (AERONET) with All Nations University College in Koforidua, Ghana	Project-Specific Agreement (PSA)	Cooperative research on aerosols using sun photometers integrated into a global network.	2/28/2025	9/17/2035
105	Goddard Space Flight Center (GSFC)	Hokkaido University (HokuDai)	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	NASA and the partner will cooperate on the AERONET program. NASA will provide equipment on loan which Kokkaido University will house at a mutually agreed location.	1/6/2016	1/5/2026
106	Goddard Space Flight Center (GSFC)	India - Amity University Haryana of India	AERONET	Project-Specific Agreement (PSA)	The scientific goals of the National Aeronautics and Space Administration (NASA) include a more detailed understanding of global atmospheric change phenomena, with a particular emphasis on climate research and the assessment of air quality. To these ends, NASA has established a global network of Sun photometers, and the Aerosol Robotic Network (AERONET) in cooperation with a wide range of international partner agencies and institutions. Sun photometers are used to measure water vapor and aerosol optical properties. AERONET provides the necessary science measurements for ground-based validation of aerosol, cloud, and other measurements taken by satellites.	6/14/2022	6/14/2032
107	Goddard Space Flight Center (GSFC)	India - Karunya University	Extension No. 1 of Agreement between the National Aeronautics and Space Administration of the United States of America and the Karunya University (KU) of India for Cooperation in the Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	NASA and Karunya University (KU) will cooperate on the operation of an AERONET subphotometer station and/or Lidar stations located at KU. NASA provide the equipment, and USM provides the site.	1/30/2014	6/30/2034
108	Goddard Space Flight Center (GSFC)	Indian Institute of Technology (IIT), Kanpur	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	NASA and the Indian Institute of Technology (IIT) Kanpur will extend cooperation dating from 2001 on an AERONET sunphotometer station located at IIT Kanpur. NASA provides the equipment, and ITT Kanpur provides the site.	6/6/2018	1/30/2100

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109	Goddard Space Flight Center (GSFC)	Institute of Applied Physics, Academy of Sciences of Moldova (ASM)	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	The purpose of this letter agreement is to formalize cooperation between the National Aeronautics and Space Administration (NASA) of the United States of America and the Institute of Applied Physics of the Academy of Sciences (IAP-ASM) of Moldova (hereinafter referred to as "the Parties"), in the global AErosol RObotic NETwork (AERONET) program. NASA's scientific goals include a more detailed understanding of global atmospheric change phenomena, with a particular emphasis on climate research and the assessment of air quality.	11/23/2020	9/22/2100
110		Institute of Oceanology, Polish Academy of Sciences (PAS)	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	To establish a sun photometer station to improve the understanding of the properties and concentration of aerosols and their relationship to aerosols on global and regional scales.	10/8/2018	10/8/2028
	Goddard Space Flight Center (GSFC)	Instituto Nazionale di Astrofisica (INAF)	Letter Agreement Between NASA and the National Institute of Astrophysics of the Italian Republic to cooperate on pre- flight testing of the Coronal Diagnostic Experiment	Project-Specific Agreement (PSA)	INAF will provide thermal vacuum and calibration facilities for the coronagraph and use the optical payload systems in Torino, Italy to provide thermal verification prior to the flight of the coronagraph.	11/10/2022	11/10/2029
112	Goddard Space Flight Center (GSFC)	Instituto Superior Politecnico da Tundavala (ISPT)	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	NASA and partner will cooperate on the AERONET program. NASA will provide equipment on loan to the Institute Superior Politecnico da Tundavala (ISPT). ISPT will host and maintain the equipment, and contribute to the AERONET database.	2/5/2016	2/4/2026
113		International Center for Integrated Mountain Development (ICIMOD)	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	The scientific goals of National Aeronautics and Space Administration (NASA) and the International Center for Integrated Mountain Development (ICIMOD) is to gain a more detailed understanding of global atmospheric change phenomena, with a particular emphasis on climate research and the assessment of air quality. To accomplish this objective, NASA has established a global network of Sun photometers, and the Aerosol Robotic Network (AERONET) in cooperation with a wide range of international partner agencies and institutions. Sun photometers are used to measure water vapor and aerosol optical properties. AERONET provides the necessary science measurements and are essential for ground-based validation of aerosol, cloud, and other measurements taken by satellites. In support of this cooperation NASA and ICIMOD will establish one or more Sun photometers at mutually agreed sites, the operation of which will improve the understanding of the properties and concentration of aerosols and clouds, and their impact on both global and regional scales.	10/3/2017	10/3/2027
114	Goddard Space Flight Center (GSFC)	Iraq - American University of Iraq - Baghdad (AUIB)	Agreement between the National Aeronautics and Space Administration of the United States of America and the American University of Iraq - Baghdad for Cooperation in the Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	Establish one or more Sun photometer stations at mutually agreed sites.	12/9/2024	12/31/2034
115	Goddard Space Flight Center (GSFC)	Istituto di Scienze dell'Atmosfera e del Clima (ISAC)	Hydrological Cycle in Mediterranean Experiment (HyMeX)	Project-Specific Agreement (PSA)	Extension continues the Hydrological Cycle in Mediterranean Experiment (HyMeX): NASA will contribute ground-based precipitation measuring instruments; The Istituto Di Scienze Dell' Atmosfera Del Clima Consiglio Nazionale Delle Ricerche (ISAC) will provide sites and data.	1/11/2023	11/30/2026

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116	Goddard Space Flight Center (GSFC)	Italian Space Agency (ASI)	Implementing Arrangement Between the National Aeronautics and Space Administration of the United States of America and the Italian Space Agency of the Italian Republic for Cooperation on Space Geodesy	Implementing Arrangement/Agreement (IA)	IA under the US-Italy Framework Agreement. NASA and ASI will partner on the development of space geodetic techniques, data sharing, and other related work.	9/21/2022	9/21/2032
117	Goddard Space Flight Center (GSFC)	Italy - Italian Space Agency (ASI)	IA for AERONET Cooperation between NASA and ASI	Implementing Arrangement/Agreement (IA)	NASA and ASI shall establish one or more Sun photometers and/or lidar stations (hereinafter also referred to as "the station(s)") at mutually agreed sites. The inclusion of these stations within the global AERONET and/or MPLNET shall significantly improve the understanding of the properties and concentration of aerosols and clouds, and their impact on both global and regional scales. Another objective of this cooperation is to encourage scientists from both NASA and ASI to develop research programs using data collected by ASI along with data available from the global AERONET and MPLNET databases located at NASA's Goddard Space Flight Center in Greenbelt, Maryland.	4/20/2020	4/20/2100
118	Goddard Space Flight Center (GSFC)	Italy - Italian Space Agency (ASI)	Extension to MOU between NASA and the Italian Space Agency (ASI) for Cooperation on the Fermi (formerly GLAST) mission.	Project-Specific Agreement (PSA)	Extends LOA for through 2025 to continue work on Fermi mission while on orbit.	12/29/2023	12/31/2025
119	Goddard Space Flight Center (GSFC)	Italy - Italian Space Agency (ASI)	Implementing Arrangement between NASA and the Italian Space Agency (ASI) on the Niel Gehrels Swift Observatory Mission.	Project-Specific Agreement (PSA)	Outlines responsibilities for work on data and other on orbit tasks for the Swift Observatory.	12/29/2023	9/30/2027
120	Goddard Space Flight Center (GSFC)	Italy - Italian Space Agency (ASI)	Implementing Arrangement between NASA and the Italian Space Agency (ASI) on the Compton Spectrometer and Imager (COSI) Mission	Project-Specific Agreement (PSA)	Outlines responsibilities for cooperation on NASA-led COSI mission, including ASI ground support and data team participation.	12/29/2023	12/31/2032
121	Goddard Space Flight Center (GSFC)	Jacob Blaustein Institute for Desert Research, Ben- Gurion University of the Negev	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	NASA and Ben Gurion University will continue to cooperate on the operation of an AERONET sunphotometer station located at Ben Gurion University's Jacob Blaustein Institutes for Desert Research. NASA provides the equipment, and Ben Gurion University provides the site.	4/21/2021	4/30/2100
122	Goddard Space Flight Center (GSFC)	Japan - Hokkaido University (HokuDai)	Agreement between the National Aeronautics and Space Administration and Hokkaido University regarding cooperation in the field of Ocean Color Research and Satellite Missions.	Project-Specific Agreement (PSA)	NASA and Hokkaido University will collaborate on field campaigns and incorporate data into the SeaWiFS Bio-Optical Archive and Storage System (SeaBASS) archive. NASA will provide equipment (radiometers, for example) to make in situ measurements on Japanese campaigns. Hokkaido University will allow for visiting researchers and provide necessary support on Japanese campaigns.	10/15/2024	11/28/2029
123	Goddard Space Flight Center (GSFC)	Japan - Hokkaido University (HokuDai)	Agreement between the National Aeronautics and Space Administration and Hokkaido University regarding cooperation in the field of Ocean Color Research and Satellite Missions.	Project-Specific Agreement (PSA)	This agreement allowed NASA and HU to strengthen goals in areas of long- standing mutual interest in the field of ocean color research, including data collection, calibration, and validation activities, development of research techniques, and refinement of algorithms.	10/15/2024	11/28/2029

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
124	Goddard Space Flight Center (GSFC)	Japan - Japan Aerospace Exploration Agency (JAXA)	X-Ray Imaging and Spectroscopy Mission (XRISM) Near-Space Network (NSN) Communications Coverage	Project-Specific Agreement (PSA)	Cooperative agreement between NASA and JAXA to mitigate the thruster-based safehold concerns for the XRISM project. The Parties intend to implement a spin-rate check on the spacecraft and add NASA's Near-Space Network (NSN) ground station support to minimize the time between passes, thereby speeding ground controller response time. This Agreement supplements the 2018 Memorandum of Understanding between NASA and JAXA for cooperation on XRISM, which addresses the full scope of cooperation between the Parties.	7/20/2023	12/31/2029
125	Goddard Space Flight Center (GSFC)	Japan Aerospace Exploration Agency (JAXA)	X-Ray Imaging and Spectroscopy Mission (XRISM)	Project-Specific Agreement (PSA)	NASA will provide a key instrument and mission management expertise to this JAXA-led mission.	10/2/2018	10/2/2029
	Goddard Space Flight Center (GSFC)	Japan Aerospace Exploration Agency (JAXA)	Extension to Amendment to Memorandum of Understanding (MOU) Between NASA and the Japan Aerospace Exploration Agency (JAXA) for Cooperation on the Global Precipitation Measurement (GPM) Program	Project-Specific Agreement (PSA)	Extension: The purpose of this Memorandum of Understanding (MOU) is to establish the terms and conditions under which NASA and JAXA will cooperate in the joint development, launch, operations and use of the Program for peaceful purposes. The Program consists of NASA and JAXA assets operating in partnership with other earth-observing satellites and instruments to produce global precipitation science data.	5/21/2019	12/31/2029
127	Goddard Space Flight Center (GSFC)	Japan Aerospace Exploration Agency (JAXA)	Magnetospheric Multiscale Mission (MMS)	Project-Specific Agreement (PSA)	NASA and the Japan Aerospace Exploration Agency (JAXA), have a mutual interest in cooperating on the Magnetospheric Multiscale (MMS) mission. The purpose of this letter is to establish a Letter of Agreement (hereinafter, "the Agreement") between NASA and JAXA (hereinafter, "the Parties") to accommodate the participation of JAXA researchers, Dr. Yoshifumi Saito and Dr. Toshifumi Mukai, in the MMS mission. NASA's Science Mission Directorate (SMD) is sponsoring the development of the MMS mission, which is a project in the Solar TelTestrial Probes (STP) program. The MMS mission will explore the Earth's magnetosphere with a constellation of four spacecraft with identical scientific payloads. Measurements made by these four spacecraft will help to explain the fundamental physical processes involved with magnetic reconnection in the Earth's magnetosphere.	12/28/2022	9/30/2026
128	Goddard Space Flight Center (GSFC)	Kinki University	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	Agreement establishes sun photometer stations in Japan, Shirahama (Wakayama Prefecture).	6/24/2011	3/31/2026
	Flight Center	Korea Astronomy and Space Science Institute (KASI)	Implementing Arrangement Between the National Aeronautics and Space Administration of the United States of America and Korea Astronomy and Space Science Institute of the Republic of Korea for Cooperation on the Coronal Diagnostic Experiment (CODEX)	Implementing Arrangement/Agreement (IA)	Cooperation on the Coronal Diagnostic Experiment (CODEX) mission, a joint effort between NASA and KASI regarding a coronagraph instrument for use on the International Space Station (ISS) and potential future missions. The agreement covers integration of the instrument, software and electronic systems, flight of the instrument, testing activities, and data analysis activities. Supersedes KS-0064-0, KS-0064-1	6/29/2022	12/31/2027

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
130	Flight Center	Korea Republic of - Korea Astronomy and Space Science Institute (KASI)	Amendment to the Implementing Arrangement between the National Aeronautics and Space Administration and the Korea Astronomy and Space Science Institute of the Republic of Korea for Cooperation on the Small Scal Magnetospheric and Ionospheric Plasma Experiment (SNIPE)	Implementing Arrangement/Agreement (IA)	KASI plans to conduct the SNIPE mission, a constellation of four identically-instrumented CubeSats, to observe small scale ionospheric and magnetospheric plasma phenomena. KASI plans for the SNIPE mission CubeSats to each carry a langmuir probe, solid state particle detector, magnetometer, and a gamma-ray burst sensor. The KASI SNIPE mission aligns with NASA's Space Weather Science Applications strategy and objectives, a plan which aims to expand the role of NASA in space weather science by competing ideas and products, leveraging NASA capabilities, collaborating with national and international organizations, and partnering with user communities to facilitate the effective transition of science knowledge to operational environments.	4/26/2023	8/16/2027
131	Goddard Space Flight Center (GSFC)	Korea, Republic of - Korea Astronomy and Space Science Institute (KASI)	Second Amendment to the Reimbursable Space Act Agreement Between the National Aeronautics and Space Administration and the Korea Astronomy and Space Science Institute for the Coronal Diagnostic Experiment (CODEX)	Project-Specific Agreement (PSA)	Amendment to the Reimbursable Space Act Agreement Between the National Aeronautics and Space Administration and the Korea Astronomy and Space Science Institute for the Coronal Diagnostic Experiment (CODEX) EPR: \$3,750,000	8/14/2023	12/31/2026
132		Korea, Republic of - Korea Astronomy and Space Science Institute (KASI)	Extension to the Implementing Arrangement (IA) for Cooperation on the Korea Astronomy and Space Science Institute (KASI) Geomagnetic Storm Forecast Model (KSFM)	Implementing Arrangement/Agreement (IA)	Extension to the Implementing Arrangement (IA) for cooperation on the development and installation of Korea Astronomy and Space Science Institute (KASI) geomagnetic storm forecasting model at the GSFC Community Coordinated Modeling Center (CCMC).	8/14/2023	8/14/2028
133		Korea, Republic of - Korea Astronomy and Space Science Institute (KASI)	Amendment 3 to the Agreement between NASA and KASI in Solar and Space Physics and Space Weather Research	Project-Specific Agreement (PSA)	Amendment to the Agreement between NASA and KASI in Solar and Space Physics and Space Weather Research	3/20/2024	3/31/2030
134	Goddard Space Flight Center (GSFC)	Korea, Republic of - Pusan University	Visiting Researcher Agreement between NASA and Pusan University	Visiting Researcher Agreement (VRA)	The Visiting Researcher will perform scientific research using publicly available Plankton, Aerosol, Cloud, ocean Ecosystem (PACE) satellite data products to study harmful algal blooms (HABs). The research entails the development of ocean color satellite algorithms for detection and quantification of HABs in U.S. coastal waters using PACE satellite data.	7/9/2024	8/15/2025
135	Goddard Space Flight Center (GSFC)	Lake Chad Basin Commission (LCBC)	Aerosol Robotic Network (AERONET) and Micro Pulse Lidar Network (MPL/NET)	Project-Specific Agreement (PSA)	NASA will provide a Sun Photometer and/or Lidar to the partner; the Partner will tend the instrument(s) and ensure data is uploaded to the global databases.	10/5/2016	10/4/2026
136	Goddard Space Flight Center (GSFC)	Major University of San Andres	NASA - UMSA AERONET	Project-Specific Agreement (PSA)	to establish sun photometer stations at mutually agreed sites in Bolivia to measure vital aerosol optical properties and water vapor	7/26/2019	7/26/2029
137	Goddard Space Flight Center (GSFC)	Malaysia - Universiti Sains Malaysia	Memorandum of Understanding Between the National Aeronautics and Space Administration and Universiti Tunku Abdul Rahman of Malaysia Concerning the Cooperation on the Soil Moisture Active Passive (SMAP) Satellite Calibration and Validation Program	Project-Specific Agreement (PSA)	NASA will provide in-situ soil moisture and vegetation sensors to the Partners, provide access to preliminary science data products and guidance for in-situ site design, installation, processing, and data quality evolution. The Partners will install and operate Cal/Val in-situ soil moisture instruments, provide continuous access to NASA, participate in regular meetings and workshops, and conduct joint scientific research with NASA. These MOUs will go into effect for 5 years.	10/14/2024	10/14/2029

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
138	Goddard Space Flight Center (GSFC)	Manila Observatory of the Philippines	Agreement Between NASA and the Manila Observatory of the Philippines for Cooperation on the Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	Agreement between NASA and the Manila Observatory of the Philippines for Cooperation in the Aerosol Robotic Network (AERONET). Originally signed January 14, 2009, and expired January 30, 2018; then extended to January 30, 2028. NASAs scientific goals include a more detailed understanding of global atmospheric change phenomena, with a particular emphasis on climate research and the assessment of air quality.	3/1/2018	1/30/2028
139	Goddard Space Flight Center (GSFC)	Max Planck Institute for Astronomy (MPIA)	Letter of Agreement Concerning Cooperation on the Nancy Grace Roman space Telescope	Project-Specific Agreement (PSA)	MPIA to provide hardware for the Roman CGI instrument.	1/11/2022	6/30/2037
140	Goddard Space Flight Center (GSFC)	Ministry of International Trade and Industry (MITI)	Amendment to Implementing Arrangement (IA) for Advanced Spaceborne Thermal Emission and Reflection Radiometer (ASTER) on Earth Observing System (EOS)	Implementing Arrangement/Agreement (IA)	The purpose of this Implementing Arrangement (IA) is to establish that the Parties will undertake scientific and technical cooperation for flight of the ASTER instrument on the NASA EOS-AM1 platform. The Parties jointly undertake this program with the purpose of furthering cooperation in global change research by enabling the multidisciplinary study and long-term systematic monitoring of the Earth, including research involving data from all Earth observing platforms contained in the IEOS and related activities of the IGBP, such as sensor calibration and data validation. Amendment to the IA -IA does not expire until end of mission.	10/15/2019	10/24/2026
141	Goddard Space Flight Center (GSFC)	Montenegro - Ministry of Education, Science, Culture and Sports	Agreement between the National Aeronautics and Space Administration of the United States of America and the Ministry of Education, Science, Culture and Sports of Montenegro for Cooperation in the GLOBE Program.	Project-Specific Agreement (PSA)	The GLOBE Program is an international environmental science and education program that brings students, teachers, and scientists together to study the global environment. GLOBE has created an international network of students at primary, middle and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international science community.	6/11/2024	1/30/2100
142	Goddard Space Flight Center (GSFC)	Mozambique - Eduardo Mondlane University	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	to establish sun photometer stations at mutually agreed sites in Mozambique to measure vital areosol optical properties and water vapor	7/24/2018	12/20/2100
143	Goddard Space Flight Center (GSFC)	Namibia - Gobabeb Namib Research Institute	Agreement between the National Aeronautics and Space Administration (NASA) and the Gobabeb-Namib Research Institute, formerly the Gobabeb Research and Training Center (GRTC), for cooperation on the Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	The purpose of this arrangement is to establish a non-reimbursable agreement (the Agreement) between NASA and the Gobabeb - Namib Research Institute (individually a Party, or together the Parties) detailing the cooperation regarding AERONET. Specifically, the Parties plan to establish one or more Sun photometer stations at mutually agreed sites. The inclusion of these stations within the global AERONET will significantly improve the understanding of the properties and concentration of aerosols and clouds, and their impact on both global and regional scales. Another objective of this cooperation is to encourage scientists from both the United States and India to develop research programs using data collected by Gobabeb and along with data available from the global AERONET database located at NASA's Goddard Space Flight Center (GSFC) in Greenbelt, Maryland.	12/12/2024	3/31/2034
144	Goddard Space Flight Center (GSFC)	National Agency for Hydrometeorology and Environmental Monitoring	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	To extend the term of the existing AERONET agreement to establish sun photometer station in Mongolia.	11/22/2017	3/31/2027

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
145	Flight Center	National Centre for Scientific Research (CNRS),University of Lille 1	AERONET with CNRS	Project-Specific Agreement (PSA)	NASA and CNRS will establish one or more Sun photometer stations at mutually agreed sites. The inclusion of these stations within the global AERONET will significantly improve the understanding of the properties and concentration of aerosols and their relationship to aerosols on both global and regional scales. Another objective of this cooperation is to encourage scientists from both NASA and CNRS to develop research programs using data collected by CNRS along with aerosol data available from the global AERONET database located at NASA's Goddard Space Flight Center (GSFC) in Greenbelt, Maryland.	5/13/2022	12/31/2032
		National Centre for Space Studies (CNES)	Implementing Arrangement (IA) Between NASA and the National Centre for Space Studies (CNES) of France on the Scientific Instruments of the Solar Probe Plus (SPP) Payload	Implementing Arrangement/Agreement (IA)	Implementing Arrangement (IA) Between NASA and CNES as NASA's Science Mission Directorate is sponsoring the development of the SPP mission, which is a project in the Living with a Star Program, a series of missions designed to gather critical information about the Sun and its effects on Earth, human activities, and other planetary systems. NASA will develop the SPP, a spacecraft equipped to perform scientific studies of the Sun. NASA plans to launch the SPP in 2018 from Cape Canaveral, Florida. CNES is sponsoring French collaboration on the FIELDS investigation, which consists of a Plasma Wave Instrument and a Magnetometer, and the Solar Wind Electrons Alphas and Protons (SWEAP) investigation, consisting of a Solar Probe Cup (SPC), and a Solar Probe Analyzer (SPAN).	6/10/2013	9/30/2026
147		National Centre for Space Studies (CNES)	Implementing Arrangement (IA) Between NASA and the National Centre for Space Studies (CNES) on the Origins Spectral Interpretation Resource Identification Security-Regolith Explorer (OSIRIS-REX) Mission	Implementing Arrangement/Agreement (IA)	Implementing Arrangement (IA) Between NASA and CNES in cooperation on OSIRIS-REx, a NASA-led asteroid sample return mission currently planned for launch in 2016. It is scheduled to rendezvous with asteroid RQ36 in 2019 and the sample return capsule should land on Earth in 2023. CNES is expected to support Co-Investigators from France to provide important modeling work and lead key astronomical observations of RQ36. This is an IA under the U.SFrance Framework Agreement.	12/9/2013	12/31/2025
148		National Centre for Space Studies (CNES)	Implementing Arrangement (IA) Between NASA and the National Center for Space Studies (CNES) of France on the Scientific Payload of the Solar Orbiter Mission	Project-Specific Agreement (PSA)	Implementing Arrangement (IA) Between NASA and CNES on a Solar Orbiter that is a European Space Agency (ESA) mission carried out in cooperation with NASA that will explore the near-Sun environment to improve the understanding of how the Sun creates the environment of the inner solar system, generates the heliosphere itself, and how fundamental plasma physical processes operate near the sun. ESA is providing the spacecraft bus, integration of the instruments onto the bus, mission operations, and overall science operations. NASA is providing instrumentation and an intermediate class launch vehicle. NASA will lead the provision to ESA of the Solar Orbiter Heliospheric Imager (SoloHI), and the Heavy Ion Sensor (HIS), which will be integrated onto the spacecraft as part of the Solar Wind Analyzer (SWA) instrument suite led by the United Kingdom. Solar Orbiter is expected to launch on an Atlas 5 in July 2017. This is an IA under the U.SFrance Framework Agreement.	8/7/2014	12/31/2025
149		National Centre for Space Studies (CNES)	Amendment (1) to the Implementing Arrangement (IA) Between NASA and CNES for Cooperation in Orbital Debris Conjunction Assessment & Risk Analysis	Implementing Arrangement/Agreement (IA)	The purpose of this IA Amendment is to set forth the responsibilities of the Implementing Agencies for orbital debris conjunction assessment and risk analysis in order to provide improved mitigation options to satellite operators facing in-orbit collisions threats.	6/16/2020	6/15/2025

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
150	Goddard Space Flight Center (GSFC)	National Centre for Space Studies (CNES), European Organization for the Exploitation of Meteorological Satellites (EUMETSAT)	Ocean Surface Topography Mission (OSTM)	Project-Specific Agreement (PSA)	The objective of the Ocean Surface Topography (OSTM) mission is to bring high-precision altimetry to a full operational status through the continuation of the TOPEX/Poseidon and Jason missions. OSTM will be launched aboard the Jason-2 satellite and will be a follow-on to the Jason mission. CNES will provide the PROTEUS platform for the Jason-2 satellite, which is scheduled to launch in June 2008 aboard a NASA-provided Boeing Delta II from Vandenberg Air Force Base, CA. OSTM will provide data for operational and research use for marine meteorology and sea state forecasting, operational oceanography, seasonal forecasting, climate monitoring, and ocean, Earth system, and climate research.	4/16/2008	12/31/2025
151	Goddard Space Flight Center (GSFC)	National Centre of Meteorology Seismology	Amendment and Extension 1: Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	Amendment and Extension 1: NASA and the National Centre of Meteorology and Seismology (NCMS) will cooperate on the AERONET program. NASA will provide equipment on loan which NCMS will host at a mutually agreed location.	5/16/2018	3/31/2027
152	Goddard Space Flight Center (GSFC)	National Institute of Water and Atmospheric Research Ltd. (NIWA)	Agreement Between NASA and the National Institute of Water and Atmospheric Research of New Zealand for Cooperation in Lidar Atmospheric Measurement Comparisons	Project-Specific Agreement (PSA)	Cooperation in airborne science in the framework of the International Network for the Detection of Atmospheric Composition Change Validation Campaign (NDACC).	6/29/2018	12/31/2028
153	Goddard Space Flight Center (GSFC)	National Research Foundation (NRF)	Extension 1: Satellite Laser Ranging (SLR)	Project-Specific Agreement (PSA)	To continue cooperation with the National Research Foundation at the Hartebeesthoek Radio Astronomy Observatory (HartRAO) station measurement systems.	9/17/2019	9/30/2029
154	Goddard Space Flight Center (GSFC)	National Space Policy Secretariat of Japan (NSPS)	Agreement between NASA and NSPS Concerning Cooperation in Space Geodesy for the QZSS Satellite System	Project-Specific Agreement (PSA)	Under this agreement, NSPS will establish GNSS station at NASA's KPGO monitoring site to contribute to the Japanese QZSS system and the Geodesy global network.	1/27/2023	3/31/2033
155	Goddard Space Flight Center (GSFC)	Natural Resources Canada (NRCan)	Cooperation in Space Geodesy that Contribute to the Enhancement of the Global Geodetic Observing System (GGOS)	Project-Specific Agreement (PSA)	NASA/The Department of Natural Resources Canada (NRCan) will cooperate in scientific programs in Earth observation and the enhancement of the Global Geodetic Observing System (GGOS).	4/16/2019	4/16/2029
156	Goddard Space Flight Center (GSFC)	Netherlands - Netherlands Space Office (NSO)	Extension No. 9 of NASA-Netherlands Space Office (NSO) Ozone Monitoring Instrument (OMI) on AURA Memorandum of Understanding (MOU)	Project-Specific Agreement (PSA)	Extension No. 9 - NASA and NSO have successfully collaborated on the flight of the Netherlands Ozone Monitoring Instrument (OMI) aboard the U.S. Earth Observing System (EOS) Aura Mission under the MOU signed in 2001. The primary scientific objective of OMI is to measure total column ozone, ozone profiles, and other atmospheric constituents, such as clouds and aerosols. OMI conducts these measures to determine how the Earth's ozone layer and UV radiation is responding to the phase-out of ozone-destroying chemicals caused by human activity. This will extend the MOU for five additional years, through December 31, 2028.	11/4/2024	12/31/2028
157	Goddard Space Flight Center (GSFC)	Norway - Norwegian Space Centre (NSC)	Implementing Arrangement between the National Aeronautics and Space Administration of the United States of America and the Norwegian Space Agency of the Kingdom of Norway on the Multi-Slit Solar Explorer (MUSE) mission.	Project-Specific Agreement (PSA)	For cooperation on the MUSE mission, which will study the physical processes that drive the heating of the Sun's corona and the eruptions in that outermost region that are at the foundation of space weather. NOSA intends to support the collection of MUSE observations through the SVALSAT ground station located at Svalbard, Norway and operated by Kongsberg Satellite Services for a period of 25 months following the launch of MUSE through Norwegian participation in the ESA Program for the Development of scientific Experiments (PRODEX).	7/1/2024	7/1/2034

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
158		Norwegian Mapping Authority (NMA)	Reimbursable Space Act Agreement Between NASA and Norwegian Mapping Authority (NMA) Concerning Cooperation on Space Geodesy	Project-Specific Agreement (PSA)	Space Geodesy: Norwegian Mapping Authority (NMA) will reimburse NASA for the installation of a next generation Satellite Laser Ranging (SLR) station in Ny-Alesund, Norway, above the arctic circle. NASA and NMA will cooperate to contribute to the Global Geodetic Observing System.	8/7/2017	8/6/2027
159	Flight (Center	Oman - University of Nizwa (UoN)	AERONET - Aerosol Robotic Network	Project-Specific Agreement (PSA)	For the proposed arrangement, NASA and the University of Nizwa (UoN) (hereinafter referred to individually as "Party" or jointly as the "Parties") will establish one or more Sun photometer stations at mutually agreed sites. The inclusion of these stations within the global AERONET will significantly improve the understanding of the properties and concentration of aerosols and clouds, and their impact on both global and regional scales. Another objective of this cooperation is to encourage scientists from both the United States and Oman to develop research programs using data collected by UoN along with data available from the global AERONET database located at NASA's Goddard Space Flight Center (GSFC) in Greenbelt, Maryland.	8/23/2022	8/23/2032
160		Pakistan - Institute of Space Technology (IST)	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	to establish a sun photometer station in Pakistan to improve the understanding of the properties and concentrations of aerosols	4/6/2018	8/15/2100
		Pakistan - Institute of Space Technology (IST)	Amendment No. 1 - Agreement between the National Aeronautics and Space Administration of the United States of America and the Pakistan Institute of Space Technology for Cooperation in the Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	To establish one or more Sun photometer stations at mutually agreed sites.	4/6/2018	12/31/2100
162		Peru - National University of San Agustin (UNSA)	Extension No.4: Letter of Agreement between the National Aeronautics and Space Administration (NASA) and the Universidad Nacional de San Agustin (UNSA) concerning cooperation on satellite laser ranging.	Project-Specific Agreement (PSA)	Extension No.4: Under this simple Extension, NASA and the Universidad Nacional de San Agustin (UNSA) will continue their cooperation on satellite laser ranging and space geodetic activities at the UNSA Geophysical Institute at Characato in Arequipa, Peru. NASA will continue to permit use of the NASA SLR tracking system and associated NASA-sponsored equipment, compensate UNSA for the salaries of personnel, land, and materials required for station operation, and provide training and engineering support. UNSA will continue to provide the site for station operations, train UNSA technical personnel, work with Peruvian government agencies to arrange for assignment of radio frequencies and spectrum, and provide periodic reports on results of station research activity.	10/1/2024	10/25/2034
163	Flight Center	Poland - Minister of Education and Science of the Republic of Poland	Agreement Between the National Aeronautics and Space Administration and the Minister of Education and Science of the Republic of Poland	Project-Specific Agreement (PSA)	Poland will provide one of ten instruments on the IMAP mission. IMAP is a NASA mission to provide the first comprehensive in situ and remote global observations to discover the fundamental physical processes that control the solar system's evolving space environment.	12/30/2021	12/30/2028
164	Flight Center	Polytechnic of Namibia, Namibia University of Science and Technology (NUST)	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	NASA and Polytechnic of Namibia will cooperate on the AERONET program. NASA will provide equipment on loan in which Gobabeb will host at a mutually agreed location.	9/25/2015	9/24/2025

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
165	Goddard Space Flight Center (GSFC)	Radio Research Agency of Korea	Implementing Arrangement Between the National Aeronautics and Space Administration of the United States of America and the Radio Research Agency of the Republic of Korea for Cooperation on the Interstellar Mapping and Acceleration Probe Active Link for Real Time (I-ALIRT) Service	Project-Specific Agreement (PSA)	To cooperate on the Interstellar Mapping and Acceleration Probe Active Link for Real Time (1-ALiRT) service, a space weather monitoring service to enable new ways of forecasting space weather by streaming real-time observations of conditions headed toward Earth to operators on the ground.	11/29/2022	11/29/2032
166		Regional Centre for Mapping of Resources for Development (RCMRD)	Letter of Agreement Between the National Aeronautics and Space Administration and The Regional Centre for Mapping of Resources for Development (RCMRD) Concerning Cooperation on Space Geodesy	Project-Specific Agreement (PSA)	Agreement to support the continued operations of established Global Navigation and Satellite System (GNSS) sites, and establishment of new Space Geodesy research sites in the Regional Centre for Mapping of Resources for Development (RCMRD) region.	11/28/2018	2/6/2027
167	Goddard Space Flight Center (GSFC)	Russian Federal Space Agency (Roskosmos)	WIND Mission/Cooperation in the Konus- WIND Experiment	Project-Specific Agreement (PSA)	Flight on the U.S. WIND mission of the Russian Konus gamma-ray burst detector to enhance the scientific return to the international science community in the area of gamma-ray astronomy.	10/28/1994	12/31/2033
168	Goddard Space Flight Center (GSFC)	Rwanda – Rwanda Space Agency	Agreement between the National Aeronautics and Space Administration of the United States of America and the Rwanda Space Agency for Cooperation in the Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	To establish one or more Sun photometer stations at mutually agreed sites.	5/22/2024	12/31/2034
169	Goddard Space Flight Center (GSFC)	Sao Tome and Principe	Cooperation in the NASA Pandora Project and Pandora Global Network (PGN)	Project-Specific Agreement (PSA)	NASA and Universidade de Sao Tome Principe (USTP) will establish one or more ground based air quality/atmospheric Sun spectrometer systems at mutually agreed site(s). The inclusion of these stations within the Pandora Global Network (PGN) will improve the understanding of the properties and concentrations of select trace gases, and their impact on both global and regional scales. Another objective of this cooperation is to encourage scientists from both NASA and USTP to develop research programs using data collected by USTP along with data available from the Pandora Project database located at NASA's Goddard Space Flight Center in Greenbelt, Maryland.	3/4/2019	3/4/2059
170	Goddard Space Flight Center (GSFC)	Space Research Organization of the Netherlands (SRON)	Agreement Between the National Aeronautics and Space Administration of the United States of American and The Netherlands Institute for Space Research for Cooperation on Using the Spectro- Polarimeter for Exploration on the Plankton, Aerosol, Cloud, ocean Ecosystem Mission	Project-Specific Agreement (PSA)	The PACE mission will extend the high quality ocean ecological, ocean biogeochemical, cloud, and aerosol particle data records begun by NASA in the 1990s. The mission will collect radiometric and polarimetric measurements of the ocean and atmosphere. The PACE observatory is comprised of one primary instrument, an Ocean Color Instrument (OCI) and two auxiliary instruments, the Hyper-Angular Rainbow Polarimeter 2 (HARP-2) and the Spectro-Polarimeter for Exploration (SPEXone). Under this Agreement, SRON will provide the SPEXone instrument to NASA for integration on the PACE spacecraft. SPEXone is a narrow swath and hyperspectral polarimeter, which will be used to characterize aerosol microphysical properties	7/31/2019	8/31/2027
171	Goddard Space Flight Center (GSFC)	Spain - University of Valladolid (UVA)	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	NASA and the Universidad de Valladolid of Spain will cooperate on the AERONET program. NASA will provide equipment on loan which the Universidad de Valladolid will host at a mutually agreed location.	12/5/2023	12/31/2027

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
172	Goddard Space Flight Center (GSFC)	Sweden - Swedish National Space Agency (SNSA)	Amendment 2 to the Implementing Arrangement Between the National Aeronautics and Space Administration and the Swedish National Space Administration (SNSA) on the Magnetospheric Multiscale Mission (MMS)	Implementing Arrangement/Agreement (IA)	Cooperation on magnetospheric multiscale mission	3/18/2024	3/31/2028
173	Goddard Space Flight Center (GSFC)	Sweden - Swedish National Space Agency (SNSA)	Implementing Arrangement between the National Aeronautics and Space Administration of the United States of America and the Swedish National Space Agency of the Kingdom of Sweden to Finalize the Cooperation Begun In 2013 for the Testing and Analysis of Green Propulsion Technologies	Implementing Arrangement/Agreement (IA)	Finalize previous cooperation on spacecraft applications of High Performance Green Propulsion (HPGP) technologies, conducted under the "Implementing Arrangement between the National Aeronautics and Space Administration of the United States of America and the Swedish National Space Board of the Kingdom of Sweden for Cooperation in the Testing and Analysis of Green Propulsion Technologies," signed in September 2013 and extended in 2016, 2019 and 2022. Under this IA, both NASA and SNSA wish to continue to share and compare data resulting from completed test activities performed at GSFC. Thruster testing was moved to Sweden, and SNSA has been testing them with the mutually agreed test profile outlined in the original implementing arrangement. Under this IA, NASA intends to provide technical consulting on propellant and engine data test results from the test campaigns to be executed in Sweden. NASA also anticipates providing technical insights from previously conducted research from test campaigns under this or the original implementing arrangement, from 2024 and prior. The Implementing Agencies intend for all data collected and resulting from activities under the original implementing arrangement begun in 2013 through the completion of activities under this IA to be made available freely and openly for use by the scientific community worldwide.	1/16/2025	8/29/2026
174	Goddard Space Flight Center (GSFC)	Switzerland - Swiss Space Office (SSO)	Extension to the Agreement between NASA and the Swiss Space Office on the Solar Terrestrial Observatory (STEREO)	Project-Specific Agreement (PSA)	Cooperation in the Solar Terrestrial Observatory (STEREO) mission, a mission to address the origin, evolution and interplanetary consequences of the coronal mass ejection.	3/22/2024	3/31/2028
175	Goddard Space Flight Center (GSFC)	Taipei Economic and Cultural Representative Office in the United States (TECRO)	Amendment: Agreement Between NASA and the American Institute in Taiwan (AIT) for Coordination Regarding Normal Operations and Special Uplink Operations for the FORMOSAT-3 Satellite System	Project-Specific Agreement (PSA)	Amendment: This Agreement (and the associated Coordination Arrangement) provides a framework to coordinate the operation of the FORMOSAT-3 Satellite (owned and operated by the National Space Organization (NSPO) of Taiwan) to prevent unacceptable interference to NASA's Earth science missions, including: FAST, GALEX, HESSI, ICESAT, SAMPEX, SWAS, TIMED, TRACE, and GLORY. The Agreement and Coordination Arrangement specify the parameters for uplink and downlink transmissions during normal operation of the FORMOSAT-3 satellite, and specifies pre-coordination required prior to special uplink operations required to upload Global Positioning System data. This activity is implemented by: (1) The Agreement between NASA and the American Institute in Taiwan (AIT), which is the U.S. liaison entity for USG activities with entities in Taiwan; and (2) The Coordination Arrangement between AIT and the Taipei Economic and Cultural Representative Office in the United States (TECRO), which is the Taiwanese liaison entity for Taiwanese activities with entities in the U.S. The period of performance of the activity is June 30, 2015 or until the FORMOSAT-3 Satellite is deactivated, whichever is sooner.		6/30/2025
176	Goddard Space Flight Center (GSFC)	Thailand - Silpakorn University	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	NASA and Silpakorn University will continue to cooperate on the operation of an AERONET sunphotometer station located at mutually agreed sites in Thailand. NASA provides the equipment, and Silpakorn University provides the sites.	4/30/2021	4/30/2100

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
177	Goddard Space Flight Center (GSFC)	The American Institute in Taiwan	Extension 1: Micro-Pulse Lidar Network (MPLNET) and the Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	Extension 1: American Institute in Taiwan (AIT)/Taiperi Economic and Cultural Representative Office (TECRO) Agreement to establish lidar and/or sun photometer stations in Taiwan. Also included is the extension of the NASA/AIT Designated Representative Agreement.	11/28/2017	12/31/2027
178	Goddard Space Flight Center (GSFC)	The University Court of the University of Edinburgh	Mini-LHR GreenNet with the University of Edinburgh	Project-Specific Agreement (PSA)	NASA to loan instruments for a University of Edinburgh ground station. The parties will establish one or more mini-LHR stations at mutually agreed sites. University of Edinburgh will host the NASA-owned equipment.	4/26/2017	4/25/2027
179	Goddard Space Flight Center (GSFC)	The University of Auckland	Agreement Between NASA and University of Auckland for Cooperation in the Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	For the proposed arrangement, the National Aeronautics and Space Administration and the University of Auckland will establish one or more Sun photometer stations at mutually agreed sites. The inclusion of these stations within the global AERONET will significantly improve the understanding of the properties and concentration of aerosols and their relationship to aerosols on both global and regional scales.	3/7/2022	3/15/2029
180	Goddard Space Flight Center (GSFC)	United Kingdom - United Kingdom Space Agency (UKSA)	Agreement between the National Aeronautics and Space Administration and the United Kingdom Space Agency for Cooperation on the Hinode Mission	Project-Specific Agreement (PSA)	NASA and UKSA renew their expired cooperation in Hinode, in which they previously cooperated to contribute the Extremeultraviolent Imaging Spectrometer (EIS) instrument. Hinode is an operating mission for which the international agreement had previously been expired for more than one year.	2/7/2024	3/31/2032
	Goddard Space Flight Center (GSFC)	United Kingdom - United Kingdom Space Agency (UKSA)	Agreement between the National Aeronautics and Space Administration and the United Kingdom Space Agency for Cooperation on the Solar Terrestrial Relations Observatory	Project-Specific Agreement (PSA)	NASA and UKSA renew their expired cooperation in STEREO, to which UKSA previously contributed flight instruments and cameras currently flying on STEREO. STEREO is an operating mission for which the international agreement had previously been expired for more than one year.	2/7/2024	3/31/2032
182	Goddard Space Flight Center (GSFC)	United Kingdom Space Agency (UKSA)	Terra/Earth Observing System (EOS AM- 1): Multi-Angle Imaging Spectro- Radiometer (MISR)	Project-Specific Agreement (PSA)	Participation by Dr. Jan-Peter Muller on the Multi-Angle Imaging Spectro-Radiometer (MISR) Instrument Team, which is to design, develop, and verify the MISR instrument and MISR data exploitation. Missing UK letter.	9/11/1992	9/30/2025
183	Goddard Space Flight Center (GSFC)	United Kingdom Space Agency (UKSA)	Solar Orbiter Agreement - Heavy Ion Sensor (HIS)	Project-Specific Agreement (PSA)	Agreement for the fabrication, delivery, integration, and data for the NASA-provided HIS to Mullard Space Science Laboratory (MSSL) for integration with the UK Space Agency-provided Solar Wind Analyzer (SWA) instrument suite. The SWA will be integrated onto the ESA-provided Solar Orbiter spacecraft. This Agreement includes provisions for interface coordination, delivery of the payload and its components to the Parties for testing, integration, and science data and data products sharing and archiving.	2/19/2013	12/31/2025
184	Goddard Space Flight Center (GSFC)	United Nations World Meteorological Organization (WMO)	Letter of Arrangement (LOA): Cooperation in the Micro-Pulse Lidar Network (MPLNET) as a Contributing Network	Project-Specific Agreement (PSA)	Letter of Arrangement (LOA) between NASA and the World Meteorological Organization Global atmosphere Watch Program (WMO/GAW) related to the recognition of the Micro-pulse Lidar Network (MPLNET) as a contributing network. Signed May 11, 2015, with no expiration date stated.	5/11/2015	5/11/2100
185	Goddard Space Flight Center (GSFC)	Universidad de San Francisco de Quito (USFQ)	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	NASA and Universidad de San Francisco de Quito (USFQ) will cooperate on the operation of an AERONET sun photometer station and/or Lidar stations located at USFQ. USFQ will maintain the NASA-owned instrument, and NASA will provide calibration on that instrument.	9/16/2016	9/16/2026

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
186	Goddard Space Flight Center (GSFC)	Universidad Popular de Cesar (UPC)	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	NASA and Universidad Popular del Cesar (UPC) will cooperate on the operation of an AERONET sun photometer station and/or Lidar stations located at UPC. UPC will maintain the NASA-owned instrument, and NASA will provide calibration on that instrument.	11/30/2016	11/29/2026
187	Goddard Space Flight Center (GSFC)	Universite de la Reunion	Network for the Detection of Atmospheric Chemical Change (NDACC)	Project-Specific Agreement (PSA)	NASA will use its mobile validation instrumentation at the Maido facility on Reunion Island to participate in a Network for the Detection of Atmospheric Chemical Change (NDACC) validation campaign with the Universite de la Reunion ozone profiling instruments.	7/4/2018	1/31/2028
188	Goddard Space Flight Center (GSFC)	Universiti Sains Malaysia	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	NASA and Universiti Sains Malaysia (USM) will cooperate on the operation of an AERONET sunphotometer station located at USM. NASA provides the equipment, and USM provides the site.	6/10/2021	5/31/2100
189	Goddard Space Flight Center (GSFC)	University of Bern	Solar Orbiter Collaboration	Project-Specific Agreement (PSA)	University of Bern will calibrate the NASA-provided Heavy Ion Spectrometer (HIS) instrument for the European Space Agency (ESA) -led Solar Orbiter mission.	10/15/2012	12/31/2025
190	Goddard Space Flight Center (GSFC)	University of Dhaka	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	NASA and the University of Dhaka will cooperate on the operation of an AERONET sunphotometer station located at the University of Dhaka. NASA provides the equipment, and the University of Dhaka provides the site.	4/16/2020	1/25/2100
191	Goddard Space Flight Center (GSFC)	University of Liege	Belgium (CSL/BELSPO) Solar Probe Plus (SPP) Letter of Agreement	Project-Specific Agreement (PSA)	NASA will develop the Solar Probe Plus (SPP), a spacecraft equipped to perform scientific studies of the Sun. The primary scientific objectives to be carried out during the mission include: to determine the structure and dynamics of the magnetic fields at the sources of both fast and slow solar wind; to trace the flow of energy that heats the corona and accelerates the solar wind; and to determine what mechanisms accelerate and transport energetic particles. Instruments include a wide-field imager, fast ion analyzer, fast electron analyzer, energetic particle instrument, magnetometer, and plasma wave instrument. This Agreement will cover the Belgian contributions to the SPP mission, specifically the contributions to the modeling, testing, and evaluation of the WISPR Investigation on the SPP.	10/10/2011	9/30/2026
192	Goddard Space Flight Center (GSFC)	University of Liege	Solar Orbiter Collaboration	Project-Specific Agreement (PSA)	The Centre Spatial de Li'ge (Universite de Liege) will provide engineering support to the NASA-provided SoloHi instrument on the European Space Agency (ESA)-led Solar Orbiter mission. The Belgian Federal Science Policy Office (BELSPO) is providing the funding.	10/2/2012	12/31/2025
193	Goddard Space Flight Center (GSFC)	University of the Republic (Uruguay)	NASA UDELAR AERONET	Project-Specific Agreement (PSA)	NASA has established a global network of Sun photometers, and the Aerosol Robotic Network (AERONET) in cooperation with a wide range of international partner agencies and institutions. Sun photometers are used to measure water vapor and aerosol optical properties. AERONET provides the necessary science measurements and are essential for ground-based validation of aerosol, cloud, and other measurements taken by satellites.	10/9/2018	10/9/2028
194	Goddard Space Flight Center (GSFC)	University of the Witwatersrand	Agreement Between NASA and the University of Witwatersrand, Johannesburg, for Cooperation in the Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	AERONET agreement with the University of Witwatersrand will provide a long term loan basis, one or more sun photometer systems and/or associated equipment for continuous operation at mutually-agreed sites; It will provide utilities, security, and housing for the station(s) at mutually-agreed location(s).	11/1/2018	10/28/2028

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
195	Goddard Space Flight Center (GSFC)	University of Warsaw	AERONET cooperation with the University of Warsaw	Project-Specific Agreement (PSA)	NASA has established a global network of Sun photometers, and the Aerosol Robotic Network (AERONET) in cooperation with a wide range of international partner agencies and institutions. Sun photometers are used to measure water vapor and aerosol optical properties. AERONET provides the necessary science measurements and are essential for ground-based validation of aerosol, cloud, and other measurements taken by satellites.	12/19/2019	12/31/2050
196	Goddard Space Flight Center (GSFC)	Yonsei University	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	NASA loans one or more sun photometers and related equipment for use and participation in the AERONET program.	3/18/2022	4/22/2032
197	Goddard Space Flight Center (GSFC),Headquart ers (HQ)	Australia - Australian Space Agency (ASA)	Global Learning and Observations to Benefit the Environment (GLOBE) program	Project-Specific Agreement (PSA)	The GLOBE Program is an international environmental science and education program that brings students, teachers, and scientists together to study the global environment. GLOBE has created an international network of students at primary, middle and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international science community.	6/19/2020	6/21/2100
198	Goddard Space Flight Center (GSFC),Headquart ers (HQ)	European Space Agency (ESA)	Reimbursable Space Act Agreement Between NASA and the European Space Agency (ESA) for Use of NASA's Space Network Tracking and Data Relay Satellite System (TDRSS) in Support of Vega Launches for ESA	Project-Specific Agreement (PSA)	This Reimbursable Space Act Agreement (hereinafter referred to as 'Agreement') is for the purpose of setting out the terms and conditions with regard to both the initial and the recurrent work to be performed by NASA for ESA's use of the Space Network Tracking and Data Relay Satellite System (TDRSS) in support of telemetry data independent of the Telemetry Ground Stations for the Vega Launch Systems (VEGA).	9/8/2021	5/24/2026
199		France - National Centre for Space Studies (CNES)	Implementing Arrangement Between the National Aeronautics and Space Administration of the United States of America and the Centre National D'Etudes Spatiales of France on the Nancy Grace Roman Space Telescope Mission.	Implementing Arrangement/Agreement (IA)	NASA and CNES will collaborate on the Nancy Grace Roman Telescope. Through this IA, which is under the French Framework Agreement, CNES will deliver a set of flight superpolished optics for the CGI and data processing pipelines for grism and prism analysis. NASA leads overall project management for the Roman mission.	4/18/2023	4/18/2033
200		Indian Space Research Organization (ISRO)	NASA-ISRO Chandrayaan-3 LRA	Implementing Arrangement/Agreement (IA)	NASA is contributing a laser retroreflector array (LRA) to the ISRO Chandrayaan-3 lunar lander mission.	2/25/2022	2/25/2028
201	Goddard Space Flight Center (GSFC),Headquart ers (HQ)	Italian Space Agency (ASI)	Implementing Arrangement Between the National Aeronautics and Space Administration of the United States of America and the Italian Space Agency of the Italian Republic for Technology Demonstrations of the Lunar GNSS Receiver Experiment - LuGRE	Implementing Arrangement/Agreement (IA)	LuGRE is an experimental payload that will fly a GPS + Galileo navigation receiver to the lunar surface to demonstrate autonomous real-time onboard navigation in the lunar environment. It will receive GPS and Galileo signals and use them to calculate position, navigation, and timing (PNT) solutions ("fixes") during the Earth-Moon transit phase, and then on the lunar surface for a 12-day surface mission duration. LuGRE will return the navigation solutions themselves, the raw precursor measurements, and raw signal samples, allowing the Implementing Agencies to "play back" the signals in a lab for development of future operational receivers. This is a critical demonstrator for precise onboard lunar navigation, which is itself an enabler for lunar telecommunications network services like LunaNet, lunar-vicinity relays, surface beacons, and other communications and navigation components of the lunar exploration architecture.	9/13/2021	9/13/2026

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
202	Goddard Space Flight Center (GSFC),Headquart ers (HQ)	Japan Aerospace Exploration Agency (JAXA)	Reimbursable Space Act Agreement Between the National Aeronautics and Space Administration and the Japan Aerospace Exploration Agency For Space Communication and Navigation Space Network Services in Support of the JAXA H3 Launch Vehicle / Compatibility Test and Precursor Flight	Project-Specific Agreement (PSA)	Reimbursable agreement between NASA and the Japan Aerospace Exploration Corporation (JAXA) for the Space Network (SN) Tracking and Data Relay Satellite (TDRS) services for one launch of the H-3 launch vehicle for the H-3/Mission 1 flight, to provide real-time telemetry of major events. Under this Agreement, the SN TDRS downlink support from NASA is requested for JAXA's scheduled launch of the H-3/Mission 1 with a launch date no earlier than July 1, 2022, which is the precursor flight to Martian Moon eXploration (MMX) mission on the H3 launch vehicle in the summer of 2024.	1/6/2021	3/31/2026
203		Ministry of Education, Science, Culture and Sport of the Republic of Armenia	Agreement between the National Aeronautics and Space Administration of the United States of America and the Ministry of Education, Science, Culture and Sport of the Republic of Armenia for Cooperation in the GLOBE Program	Project-Specific Agreement (PSA)	The GLOBE Program is an international environmental science and education program that brings students, teachers, and scientists together to study the global environment. GLOBE has created an international network of students at primary, middle and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international science community.	6/14/2021	6/14/2100
204		Ministry of Environment of the Slovak Republic	Agreement between the National Aeronautics and Space Administration of the United States of America and the Ministry of Environment of the Slovak Republic for Cooperation in the GLOBE Program	Project-Specific Agreement (PSA)	The GLOBE Program is an international environmental science and education program that brings students, teachers, and scientists together to study the global environment. GLOBE has created an international network of students at primary, middle and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international science community.	12/31/2019	12/31/2100
205	Goddard Space Flight Center (GSFC),Headquart ers (HQ)	Norwegian Mapping Authority (NMA)	Space Geodesy: Norwegian Mapping Authority (NMA) Agreement	Project-Specific Agreement (PSA)	An agreement for cooperation in the field of space geodesy, including Satellite Laser Ranging (SLR), Very Long Baseline Interferometry (VLBI), and Global Navigation Satellite Systems (GNSS).	2/10/2021	1/1/2031
206	Goddard Space Flight Center (GSFC),Headquart ers (HQ)	Prefeitura de Rio de Janeiro, Brazil	Hazard Monitoring and Disaster Response In and Around Rio de Janeiro, Brazil	Implementing Arrangement/Agreement (IA)	The purpose of this Agreement is to forge cooperation that strengthens scientific collaboration between NASA and the City of Rio de Janeiro, specifically through the routine exchange of knowledge across disciplines and the use of Earth observations data and data products to enable innovative and ongoing efforts to anticipate, monitor and better assess the contributions to disaster risk from multiple natural hazards (including flooding, inundation, landslides, mudslides, drought, heat islands, fires, etc.) in the vicinity of Rio de Janeiro.	10/13/2020	10/30/2025
207	Goddard Space Flight Center (GSFC),Headquart ers (HQ)	Royal Government of Bhutan (GOB)	Agreement between the National Aeronautics and Space Administration of the United States of America and the Royal Government of Bhutan for Cooperation in the GLOBE Program	Project-Specific Agreement (PSA)	The GLOBE Program is an international environmental science and education program that brings students, teachers, and scientists together to study the global environment. GLOBE has created an international network of students at primary, middle and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international science community.	3/19/2021	3/19/2026
		China - Chinese Academy of Sciences (CAS)	Letter of Agreement between the National Aeronautics and Space Administration (NASA) and the Chinese Academy of Sciences (CAS) regarding cooperation in the field of space geodesy	Project-Specific Agreement (PSA)	Cooperation in the field of space geodesy. NASA equipment at CAS, data exchange.	1/17/2025	3/15/2030

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
	Goddard Space Flight Center (GSFC),Jet Propulsion Laboratory (JPL)	European Space Agency (ESA)	Agreement Between the European Space Agency (ESA) and NASA Concerning Network and Operations Cross Support	Project-Specific Agreement (PSA)	This agreement provides for a legal framework and the conditions for a mutually beneficial long-term cooperation between NASA and ESA in the areas of network and operations cross support. This includes telemetry data acquisition, tracking, and command. This agreement provides for implementing arrangements to be completed for mission specific activities. This Agreement supersedes and terminates ESA-0239-0, -1, and -2.	3/20/2017	3/21/2027
210	Goddard Space Flight Center (GSFC),Jet Propulsion Laboratory (JPL)	Japan Aerospace Exploration Agency (JAXA)	Earth Observation Satellite Data Exchange	Project-Specific Agreement (PSA)	JAXA will provide non-public data to NASA Principle Investigators who responded to JAXA announcements of opportunity.	2/26/2018	2/26/2028
	Goddard Space Flight Center (GSFC),Jet Propulsion Laboratory (JPL)	Nigerian National Space Research and Development Agency (NASDRA)	Extension: Space Geodesy: Extension of LOA Between NASA and the Nigerian National Space Research and Development Agency (NASDRA) for Cooperation on Geo-Hazards Research	Project-Specific Agreement (PSA)	Extension: NASA responsibilities include long term loan of one or more GPS receivers, antennas, computers, and associated equipment, training for use of NASA provide equipment and software, data analysis support. NASDRA responsibilities include - logistical support, personnel, and support data analysis.	9/25/2018	9/25/2028
212		South African Radio Astronomical Observatory (SARAO)	Space Geodesy: Hartebeesthoek Radio Astronomy Observatory (HartRAO)	Project-Specific Agreement (PSA)	Agreement between the National Aeronautics and Space Administration (NASA) and the South African Radio Astronomy Observatory (SARAO) concerning Space Geodetic Research using the Global Navigation Satellite System (GNSS) technique. This agreement supersedes a previous agreement with the same organization, then the Hartbeesthoek Radio Astronom Observatory. This agreement establishes one or more permanent GPS ground stations, with the first agreed-upon station to be located at Hartebeesthoek.	9/12/2018	9/12/2028
	Goddard Space Flight Center (GSFC),Jet Propulsion Laboratory (JPL)		Memorandum of Understanding Between the National Aeronautics and Space Administration of the United States of America and Asian Disaster Preparedness Center of Thailand Concerning the Cooperation on the Soil Moisture Active Passive (SMAP) Satellite Calibration and Validation Program	Project-Specific Agreement (PSA)	NASA will provide in situ soil moisture and vegetation sensors to ADPC, access to preliminary science data products, and ADPC shall install and operate the Cal/Val moistures and provide continuous access to data for NASA.	2/14/2025	2/14/2030
214	Headquarters (HQ)	American Institute in Taiwan (AIT)	Amendment: Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	Amendment: Agreement between the American Institute in Taiwan (AIT) and the Taipei Economic and Cultural Representative Office (TECRO) in the U.S. for Cooperation in the GLOBE Program. Intending to increase the awareness of students throughout the world about the global environment; seeking to contribute to increased scientific understanding of the Earth; and Desiring to support improved student achievement in science and mathematics.	8/13/2018	8/13/2100
215	Headquarters (HQ)	Australia - Australian Space Agency (ASA)	Letter agreement between NASA and Rocket Technologies International (RTI) Concerning OSIRIS-REx re-entry observations (HORIS)	Project-Specific Agreement (PSA)	Re-entry observations of OSIRIS-REx in September. The partners are contributing sensor(s) and plan to collaborate on this re-entry campaign led by the SCLIFLI team out of Langley. The collaboration is expected to use airborne sensors integrated onto one or more NASA aircraft and a RTI-sponsored aircraft flown in the vicinity of the capsule's flight path.	7/12/2023	7/12/2028

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
216		Australia - Australian Space Agency (ASA)	Non-Reimbursable Space Act Agreement between the National Aeronautics and Space Administration and the Commonwealth of Australia, Represented by the Australian Space Agency, Part of the Department of Industry, Science and Resources for Continued Collaboration on a Lunar Surface Technology Demonstration Beyond System Requirements Review up to and Including Critical Design Review	Project-Specific Agreement (PSA)	This Agreement, which builds on the work conducted under the Non-Reimbursable Space Act Agreement between the National Aeronautics and Space Administration and the Commonwealth Of Australia, Represented by the Australian Space Agency, Part of the Department of Industry, Science, Energy and Resources for Collaboration Leading to the Planning and System Requirements Review of a Lunar Surface Technology Demonstration signed in September 2021, and extended in 2023, shall enable discussions leading up to and including the critical design review of the lunar surface technology demonstration in support of the Artemis exploration plans, with applications to sustained human exploration and science. This Agreement is for the purpose of supporting collaboration between NASA and the Agency on the Australian design and build of a 20kg class lunar rover and is intended to cover preliminary design review and critical design review activities that are necessary to deliver a rover aligned with NASA mission objectives. It is anticipated that the Foundation Services Rover will collect and deliver multiple lunar regolith samples to an analysis instrument that will measure residual propellant constituent concentrations and further the understanding of lunar plume surface interaction (PSI).	4/11/2024	4/30/2026
217	Headquarters (HQ)	Australia – Rocket Technologies International (RTI)	Letter agreement between NASA and Rocket Technologies International (RTI) Concerning OSIRIS-REx re-entry observations (HORIS)	Project-Specific Agreement (PSA)	Re-entry observations of OSIRIS-REx in September. The partners are contributing sensor(s) and plan to collaborate on this re-entry campaign led by the SCLIFLI team out of Langley. The collaboration is expected to use airborne sensors integrated onto one or more NASA aircraft and a RTI-sponsored aircraft flown in the vicinity of the capsule's flight path.	7/12/2023	7/12/2028
218	'	Australia - University of New South Wales	NASA-UNSW Antarctic samples Astrobiology agreement	Project-Specific Agreement (PSA)	University of New South Wales (UNSW) has experience working on high affinity atmospheric H2 uptake which provide a chemosynthetic basis for life in extreme cold Antarctic soils (Mars-like). Atmospheric trace gases support primary production in Antarctic desert surface soil. The Parties share a common interest in understanding the prevalence of life in the universe, and in particular the possibility of life on our neighboring planet Mars. A promising avenue towards this increased understanding is studying H2 consumption by life on Mars and therefore the Parties seek to push this work forward to higher elevation (colder) sites in the Antarctic with an explicit application of this research to the environment on Mars.	11/15/2024	11/15/2029
219		Australia - University of Southern Queensland	Origins, Spectral Interpretation, Resource Identification, Security-Regolith Explorer Re-Entry Campaign	Implementing Arrangement/Agreement (IA)	Parties will engage in a joint campaign to observe the entry, descent, and landing of the NASA OSIRIS-REx sample return capsule using airborne sensors integrated onto NASA aircraft and a Rocket Technologies International sponsored aircraft flown near capsule's flight path.	8/18/2023	8/18/2028

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
220	Headquarters (HQ)	Belgian Centre Spatiale de Liege (CSL),Beligan Federal Science Policy Office (BELSPO)	NASA-Belgium Letter Agreement on the Ionospheric Connection Explorer (ICON) Mission	Project-Specific Agreement (PSA)	NASA's Science Mission Directorate is sponsoring the development of the ICON mission, a project in the Heliophysics Explorers program. The ICON mission will explore the near-Earth space environment to discover the sources of the region's remarkable variability. ICON will make a complete set of measurements needed to describe the fundamental coupling process occurring in the ionosphere, Earth's natural plasma laboratory. ICON's observations at the edge of space will provide the key physical insights needed to predict conditions in near-Earth space, and enhance understanding of the connection between Earth's weather and space weather. ICON will carry four instruments to achieve its science goals: the dual Michelson Interferometers for Global High-resolution Thermospheric Imaging (MIGHTI), a Far Ultra Violet (FUV) spectrographic imager, and an Ion Velocity Meter (IVM). This agreement covers the Belgian contributions to ICON, specifically the alignment, testing, calibration, and evaluation of FUV.	6/30/2022	6/30/2027
221	'	Belgian Science Policy Office	Juno Ultra-Violet Spectrometer (UVS) Extension	Project-Specific Agreement (PSA)	2022 Extension, University of Liege to provide portions of the UVS on NASA- led JUNO mission	8/1/2022	12/31/2026
222		Brazil - Federative Republic of Brazil	Brazil Framework Agreement on Cooperation in the Peaceful Uses of Outer Space	Umbrella/Framework Agreement (UM/FW)	This is a Framework Agreement between the United States Government and the Government of the Federative Republic of Brazil on the cooperation in the peaceful uses of outer space. Recalling their useful cooperation through implementation of cooperative activities in a broad range of space science and applications areas and considering the desirability of enhanced cooperation between the agencies have potential benefits to all nations.	3/19/2011	4/3/2038
223		Brazilian Space Agency (AEB)	Implementing Arrangement (IA) for Cooperation Between NASA and the Brazilian Space Agency (AEB) of the Federative Republic of Brazil of Brazil in Heliophysics and Space Weather Research	Implementing Arrangement/Agreement (IA)	NASA and the Brazilian Space Agency (AEB) signed an IA under the U.SBrazil Framework Agreement on Cooperation in the Peaceful Uses of Outer Space that will facilitate enhanced cooperation in the fields of solar and space physics (heliophysics) and space weather research. Under the IA, AEB, through the Brazilian National Institute for Space Research (INPE), will acquire and process space weather broadcast data from NASA's Van Allen Probes mission, which was launched in 2012. The IA also enables Brazilian participation in the research working groups of NASA heliophysics missions, including the Van Allen Probes mission and the Magnetospheric MultiScale mission, and promotes continued discussion on new projects for potential U.SBrazil collaboration in heliophysics and space weather research.	6/30/2015	6/30/2025
224	Headquarters (HQ)	Brazilian Space Agency (AEB)	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE Program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	6/30/2015	6/30/2100
225		Canada - Canadian Space Agency (CSA)	Extension to the Framework Agreement between the Government of the United States of America and the Government of Canada For Cooperation in the Exploration and Use of Outer Space for Peaceful Purposes	Umbrella/Framework Agreement (UM/FW)	The Framework Agreement AND its Extension set forth the obligations, terms & conditions for the cooperation between NASA and CSA, or any other designated Agency of either Party, in the exploration and use of outer space for peaceful purposes in areas of common interest and on the basis of equality and mutual benefit.	3/17/2021	5/11/2030
226	Headquarters (HQ)	Canadian Space Agency (CSA)	Implementing Arrangement (IA) on Surface Water Ocean Topography (SWOT) Phase C-F	Implementing Arrangement/Agreement (IA)	Canadian Space Agency (CSA) to provide Extended Interaction Klystrons (EIKs) as part of the NASA KaRIn instrument.	10/17/2016	10/20/2030

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
227	Headquarters (HQ)	Canadian Space Agency (CSA)	NASA-CSA Lunar Exploration Accelerator Program (LEAP) Lunar Rover Mission (LRM) Implementing Arrangement	Implementing Arrangement/Agreement (IA)	CSA and NASA are collaborating on CSA's Lunar Rover Mission (LRM) and science payloads, to be delivered via Commercial Lunar Payload Services (CLPS). CSA's lunar rover will carry two scientific instrument payloads – one American and one Canadian. IA will expire one year after commissioning of CSA LRM.	1/20/2022	12/31/2027
228	Headquarters (HQ)	Central Environmental Authority	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	12/20/1999	12/31/2100
229	Headquarters (HQ)	Denmark - Danish Technical University of Denmark	Amendment 4 to Letter Agreement between NASA and DTU for Cooperation on the Nuclear Spectroscopic Telescope Array (NuSTAR) mission	Project-Specific Agreement (PSA)	Extends LOA for through 2033 to continue work on NuSTAR mission while on orbit.	12/21/2023	12/31/2033
230	Headquarters (HQ)	Denmark - LEGO System A/S	Extension 2 of the Non-Reimbursable Space Act Umbrella Agreement Between NASA and LEGO System A/S of Denmark for Cooperation in Ground- Based and Aeronautics Activities	Umbrella/Framework Agreement (UM/FW)	This Umbrella Agreement (hereinafter referred to as the "Agreement" or "Umbrella Agreement") shall be for the purpose of continuing and expanding the NASA and LEGO relationship begun in 2010, under the October 2010 "Nonreimbursable Space Act Agreement between National Aeronautics and Space Administration and LEGO System A/S" (hereinafter referred to as the "2010 Agreement"). In particular, this Umbrella Agreement will facilitate ground-based and aeronautics activities.	4/8/2022	4/7/2027
231	Headquarters (HQ)	Denmark - Niels Bohr Institute (NBI), University of Copehnagen	Letter agreement between Niels Bohr Institute and NASA on Lunar-VISE (Calibration Target)	Project-Specific Agreement (PSA)	Lunar-VISE is an integrated suite of instruments that will be integrated on a lander and rover to determine the composition and rock type of the Gruithuisen dome, selected by the Payloads and Research Investigations on the Surface of the Moon solicitation, and as part of a NASA's Commercial Lunar Payload Services (CLPS) delivery. The main science goal is to understand how lunar silicic volcanism works. The Niels Bohr Institute's contribution to Lunar-VISE is expected to include a spectral and geometric calibration target for the LV-VIC on the rover. The calibration target assembly includes target materials with well-characterized visible to near infrared reflectance and spectral properties, including a set of mineral standards, a metric standardized bar graphic for testing camera resolution, and small magnetic properties experiment for testing the magnetic properties of the lunar regolith.	6/11/2024	6/11/2032
232	Headquarters (HQ)	Denmark - Technical University of Denmark (DTU)	Letter Agreement between the Technical University of Denmark (DTU) and NASA on Psyche	Project-Specific Agreement (PSA)	Letter Agreement between the Technical University of Denmark (DTU) and NASA on Psyche, science contribution for Psyche magnetometer	2/21/2024	2/21/2039
233	Headquarters (HQ)	Department of Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	6/12/1995	12/31/2100
234	Headquarters (HQ)	Department of Science and Technology	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	1/14/1999	12/31/2100
235	Headquarters (HQ)	Department of the Environment	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	5/1/1996	12/31/2100

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
236	Headquarters (HQ)	Education Ministry	Global Learning and Observations to benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	4/22/1996	12/31/2100
237	Headquarters (HQ)	ESA - European Space Agency	Amendment 3 to Letter Agreement between ESA and NASA for the Advanced Telescope for High Energy Astrophysics (Athena) mission	Project-Specific Agreement (PSA)	Extends LOA for through 2027 and redefines scope of study phase for NASA contribution to Athena mission.	12/13/2023	12/13/2027
238		ESA - European Space Agency	Memorandum of Understanding (MOU) between ESA and NASA on EnVision (ESA-led Venus mission)	Project-Specific Agreement (PSA)	MOU covers the Venus cooperation on the ESA-led Venus mission. NASA is contributing the mission enabling instrument, VenSAR. EnVision is expected to launch in 2031 by ESA.	3/12/2024	12/31/2042
239	Headquarters (HQ)	European Space Agency	NASA-ESA PROSPECT MOU	Project-Specific Agreement (PSA)	ESA and NASA are collaborating on ESA's Package for Resource Observation and In-Situ Prospecting For Exploration, Characterization, and Testing (PROSPECT) mission, by delivering this science payload to the lunar surface via Commercial Lunar Payload Services (CLPS).	1/26/2022	6/30/2031
240	Headquarters (HQ)	European Space Agency	NASA-ESA Retroreflector (MPAc) MOU	Project-Specific Agreement (PSA)	ESA and NASA are collaborating on ESA's Retroreflector, by delivering this science payload to the lunar surface via Commercial Lunar Payload Services (CLPS).	1/26/2022	6/30/2031
241	Headquarters (HQ)	European Space Agency	NASA-ESA Artemis Study Letter of Agreement	Project-Specific Agreement (PSA)	NASA and ESA will study, discuss and exchange the necessary information to mature each Party's understanding of possible future mutually beneficial cooperation on Artemis.	4/1/2022	4/5/2027
242	Headquarters (HQ)	European Space Agency	NASA-ESA Lunar Pathfinder (LPF) MOU	Project-Specific Agreement (PSA)	ESA and NASA are collaborating on ESA's Lunar Pathfinder (LPF) spacecraft, by delivering this lunar communications relay to lunar orbit via Commercial Lunar Payload Services (CLPS). This MOU shall remain in force until six years from the date of launch of the LPF spacecraft.	6/15/2022	12/31/2030
243	Headquarters (HQ)	European Space Agency	Framework Agreement Between NASA and the European Space Agency (ESA) for a Strategic Partnership in Earth System Science	Umbrella/Framework Agreement (UM/FW)	The purpose of the Framework Agreement to define the terms and conditions under which NASA and ESA plan to conduct Earth system science cooperation within the overall framework of a strategic partnership.	6/15/2022	6/15/2032
244	Headquarters (HQ)	Federal Department for Environment, Transport, Energy, and Communication	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	4/22/1998	12/31/2100
245	Headquarters (HQ)	Federal Environmental Agency	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	6/6/1999	12/31/2100
246		Federal Ministry of Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	4/20/1995	12/31/2100

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
247	Headquarters (HQ)	Finnish Geodetic Institute (FGI)	Agreement between the National Aeronautics and Space Administration of the United States of America and the Finnish Geospatial Research Institute for Space Geodesy	Project-Specific Agreement (PSA)	Cooperation to share space geodetic data, processed geodetic products, and conduct scientific and technical exchange in the field of space geodesy.	6/23/2020	6/23/2030
248	Headquarters (HQ)	For the Ministry of Basic Education and Alphabetization	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	8/11/2005	12/31/2100
249	Headquarters (HQ)	France – Grapevine Productions	Letter agreement between NASA and Grapevine Productions for Sanctuary payload on CLPS	Project-Specific Agreement (PSA)	Cooperation on the delivery of the Sanctuary payload via the NASA Commercial Lunar Payload Services (CLPS) to the lunar surface. Sanctuary is a repository containing 24 synthetic sapphire discs that is expected to be delivered to the surface of the Moon.	9/19/2023	9/19/2033
250	Headquarters (HQ)	France - National Centre for Space Studies (CNES)	Implementing Arrangement between NASA and CNES for Joint Studies on Potential Lunar Cooperative Activities	Implementing Arrangement/Agreement (IA)	Joint NASA-CNES study on potential lunar exploration cooperative activities	8/14/2024	8/14/2034
251	Headquarters (HQ)	German Aerospace Center (DLR)	Implementing Arrangement (IA) Between NASA and the German Aerospace Center (DLR) for Cooperation on the Solar Probe Plus (SPP) Mission	Implementing Arrangement/Agreement (IA)	Implementing Arrangement (IA) Between NASA and DLR that will develop the Solar Probe Plus (SPP), a spacecraft equipped to perform scientific studies of the Sun. NASA plans to launch the SPP in 2018 from Cape Canaveral, Florida, aboard an Atlas V class launch vehicle. The primary scientific objectives, to be carried out during the mission, will be to determine the structure and dynamics of the magnetic fields at the sources of both fast and slow solar wind, to trace the flow of energy that heats the corona and accelerates the solar wind, and to determine what mechanisms accelerate and transport energetic particles. Instruments include a wide-field imager, fast ion analyzer, fast electron analyzer, energetic particle instrument, magnetometer, and plasma wave instrument. DLR and NASA will be cooperating on the Wide Field Imager for Solar Probe (WISPR) Investigation on the SPP mission. WISPR will track density fluctuations in the solar corona by imaging visible sunlight scattered by electrons in the corona as the spacecraft traverses through its perihelion passes. International participation on this mission also includes France and Belgium.	3/20/2012	9/30/2026
252	Headquarters (HQ)	German Aerospace Center (DLR)	Framework Agreement Between NASA and the German Aerospace Center (DLR) On Cooperation in Aeronautics and the Exploration and Use of Outer Space for Peaceful Purposes	Umbrella/Framework Agreement (UM/FW)	Framework Agreement between NASA and DLR on Cooperation in Aeronautics and the Exploration and Use of Outer Space for Peaceful Purposes.	12/12/2020	12/13/2030
253	Headquarters (HQ)	German Aerospace Center (DLR)	NASA-DLR Dragonfly Mission Implementing Arrangement	Implementing Arrangement/Agreement (IA)	NASA and DLR are collaborating on the Dragonfly mission to Titan. DLR is providing instrumentation and data analysis for the Entry Aerosciences Measurements part of the EDL system.	5/25/2022	5/25/2042
254	Headquarters (HQ)	Germany - German Aerospace Center (DLR)	Amendment #6; Solar Terrestrial Relations Observatory (STEREO) Mission	Project-Specific Agreement (PSA)	Amendment #6; The STEREO mission reveals the Sun in three dimensions for the first time. DLR provided SEPT detectors, in flight electronics, coronagraphs and other instruments.	5/23/2023	6/30/2026

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
255		Germany - German Aerospace Center (DLR)	Implementing Arrangement between NASA and DLR for Cooperation on the Gravity Recovery and Climate Experiment - Continuity (GRACE-C) Mission	Project-Specific Agreement (PSA)	DLR is providing the instrument support, mission operations, science, and the Launch Vehicle.	10/6/2023	12/31/2038
256		Germany - German Aerospace Center (DLR)	Venus Mineral Weather Testing - Glenn Research Center Extreme Environments Rig (GEER) Facility Implementing Arrangement	Implementing Arrangement/Agreement (IA)	DLR has a unique facility to measure emissivity of rock and mineral samples under proper conditions to improve our knowledge of mineral/rock spectra and improve interpretation of data collected by Venus orbital missions. Glenn Research Center (GRC) has the unique capability at the Glenn Extreme Environments Rig (GEER) facility to simulate alteration caused by Venus surface conditions. DLR is expected to measure emissivity of rock and mineral specimens before and after the test items are exposed to Venus surface conditions in the GEER facility. The samples and the emissivity data together are expected to improve the capability to identify rock type and mineral composition on the Venus surface and support the upcoming NASA and European Space Agency Venus missions.	10/8/2024	11/1/2030
257		Germany - German Aerospace Center (DLR)	Amendment to Implementing Arrangement between NASA and the German Aerospace Center for Cooperation on the Bose-Einstein Condensate Cold Atom Laboratory (BECCAL)	Implementing Arrangement/Agreement (IA)	Cooperation on the Bose-Einstein Condensate Cold Atom Laboratory (BECCAL), a multi-user facility designed to study Bose-Einstein Condensation and ultra-cold quantum gases in the pressurized micro-gravity environment on the International Space Station (ISS). This amendment updates several responsibilities to reflect updates to ISS operations since the original agreement, and also extends the cooperation through the lifetime of ISS/2030.	12/18/2024	12/31/2030
258		Germany - University of Stuttgart	Letter agreement between NASA and University Stuttgart (UniST) Concerning OSIRIS-REx re-entry observations (HORIS)	Project-Specific Agreement (PSA)	Re-entry observations of OSIRIS-REx in September. The partners are contributing sensor(s) and plan to collaborate on this re-entry campaign led by the SCLIFLI team out of Langley. The collaboration is expected to use airborne sensors integrated onto one or more NASA aircraft and a RTI-sponsored aircraft flown in the vicinity of the capsule's flight path.	7/25/2023	7/25/2028
259	Headquarters (HQ)	Government of Canada	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	4/7/1997	12/31/2100
260	Headquarters (HQ)	Government of Japan	Japan Cross-Waiver of Liability for Cooperation in Peaceful Exploration and Use of Outer Space	Umbrella/Framework Agreement (UM/FW)	Agreement establishing a cross-waiver of liability for cooperation in the exploration and use of space for peaceful purposes to go into force on the date on which the governments of the United States and Japan exchange notes informing each other that their respective legal procedures necessary for entry into force have been completed. That exchange of notes is agreement JA-0292 of 07/20/1995. See, also, agreement JA-0290 of 10/25/1994. All merged here now, others deleted. Note that this cross waiver does not apply to ISS Cooperation.	4/24/1995	12/31/2100
261	Headquarters (HQ)	Government of Kuwait	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	4/12/1999	12/31/2100
262	Headquarters (HQ)	Government of Monaco	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	6/29/2000	12/31/2100

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263	Headquarters (HQ)	Government of Mongolia	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	5/6/1997	12/31/2100
264	Headquarters (HQ)	Government of South Africa	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	2/17/1997	12/31/2100
265	Headquarters (HQ)	Government of Spain	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	5/5/1998	12/31/2100
266	Headquarters (HQ)	Government of the Italian Republic	Framework Agreement Between the Government of the United States of America and the Government of the Italian Republic for Cooperation in the Exploration and Use of Outer Space for Peaceful Purposes	Umbrella/Framework Agreement (UM/FW)	Government to Government Agreement between the U.S. and the Italian Republic for Cooperation in the Exploration and Use of Outer Space for Peaceful Purposes signed on March 19, 2013. This Agreement enters into force on the date of the last note of an exchange of diplomatic notes in which the Parties notify each other of the completion of their internal procedures necessary for the entry into force of this Agreement. (Italy Note Verbale signed January 19, 2016. Dept. of State Dip Note 195 stamped February 18, 2016.)	3/19/2013	2/11/2026
267	'	Government of the Kingdom of Norway	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	Mission: Education. The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	4/5/1995	12/31/2100
268		Government of the Kingdom of Norway	Amendment and Extension 3: Agreement Between the United States of America and the Kingdom of Norway for Cooperation in the Civil Uses of Outer Space	Umbrella/Framework Agreement (UM/FW)	Amendment and Extension 3: The U.S. and the Kingdom of Norway, pursuant to Article 11 of the Agreement signed 10/20/2000 and 11/14/2001, and extended for 10 years by an agreement signed on 10/23/2006, agree to extend the duration of the Agreement for another 10 years, thus extending the expiration date until 11/14/2026. The Parties also agree, pursuant to Article 10 of the Agreement to amend the Agreement by replacing Article 7 in its entirety with new language. 2nd Extension: U.S. Geological Survey (USGS) added as a U.S. Implementing Agency pursuant to Article 2. 1st Extension: This is an extension of the umbrella/framework agreement between the US and Norway for cooperation in the civil uses of outer space. The parties cooperation will be in sounding rocket activity, Space science, Earth science, satellite data acquisition and tracking, and other space activities. The specific cooperation will be set forth in Implementing Arrangements between the Implementing Agencies. NASA and NOAA are the Implementing Agencies for the U.S., and the Norwegian Space Centre (NSC) is the Implementing Agency for Norway.	9/30/2016	11/14/2026
269		Government of the Kingdom of Saudi Arabia	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	9/30/2002	12/31/2100
270	Headquarters	Government of the Kingdom of the Netherlands	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	2/28/1995	12/31/2100
271		Government of the Republic of Mali	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	11/19/1997	12/31/2100

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272		Government of the Republic of Senegal	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	3/17/1995	12/31/2100
273	Headquarters (HQ)	Government of Uganda	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	11/26/1998	12/31/2100
274		Government of Yugoslavia (first)	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	10/17/2002	12/31/2100
275		India - Indian Space Research Organization (ISRO)	Amendment to the Implementing Arrangement for Cooperation on the Balloon Measurements of the Asian Tropopause Aerosol Layer (BATAL) Campaign	Project-Specific Agreement (PSA)	Balloon measurements of the Asian Tropopause Aerosol Layer (BATAL) campaigns. NASA and ISRO to conduct annual summer campaigns in India from 2017-2020 to make balloon-based measurements of aerosols and clouds in the upper troposphere and lower stratosphere using a variety of instrumentation and balloon flight systems.	10/11/2023	9/20/2027
276		Indian Space Research Organization (ISRO)	Implementing Arrangement (IA) Between NASA and Indian Space Research Organization (ISRO) for Exchange of Personnel Under the Professional Engineer and Scientist Exchange Program (PESEP)	Implementing Arrangement/Agreement (IA)	Implementing Arrangement (IA) for cooperation on the Professional Engineer and Scientist Exchange Program (PESEP) established by the India-U.S. Civil Space Joint Working Group.	4/25/2017	4/25/2027
277	Headquarters (HQ)	Institute for the Promotion of Teaching Science and Technology	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	9/30/1999	12/31/2100
278	(HQ)	Institute of Space and Astronautical Science (ISAS),Japan Aerospace Exploration Agency (JAXA)	NASA-JAXA Cross Support Agreement	Project-Specific Agreement (PSA)	This agreement between NASA and JAXA will facilitate the arranging and managing network and operations cross-support communications services between the Parties, with mission risk-reducing technical capability for bi-directional interoperability between their respective tracking assets and mutual space navigation support, as well as mission operations and ground data systems compatibility.	11/17/2021	11/17/2031
279		Israel - Israel Space Agency (ISA)	Framework Agreement Between NASA and the Israel Space Agency (ISA) for Cooperation in Aeronautics and the Exploration and Use of Airspace and Outer Space for Peaceful Purposes	Umbrella/Framework Agreement (UM/FW)	Framework Agreement between NASA and the Israel Space Agency (ISA) for Cooperation in Aeronautics and the Exploration and Use of Airspace and Outer Space for Peaceful Purposes.	10/13/2015	10/13/2025
280		Israel - Israel Space Agency (ISA)	Implementing Arrangement Between The National Aeronautics and Space Administration (NASA) And The Israel Space Agency (ISA) For Cooperation On The Ultraviolet Transient Astronomy Satellite Mission (ULTRASAT)	Implementing Arrangement/Agreement (IA)	ULTRASAT is an astrophysics research satellite carrying a telescope with a large field of view observing in the ultraviolet. NASA will provide a variety of launch vehicle related necessities. ISA will cover the scientific aspects of ULTRASAT.	2/12/2023	2/12/2030

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
281	Headquarters (HQ)	Italian Space Agency (ASI)	NASA-ASI Artemis Study Agreement	Project-Specific Agreement (PSA)	NASA and ASI to conduct feasibility studies on possible Italian elements contributing to the Artemis program, including: the development of lunar surface habitation capabilities and associated technologies for short-duration crewed missions to the lunar surface; lunar telecommunications support; and other potential ASI contributions.	12/4/2020	12/4/2025
282	Headquarters (HQ)	Italian Space Agency (ASI)	Memorandum of Understanding (MOU) Between NASA and Agencia Spaziale Italia (ASI) Concerning the Juno Mission	Project-Specific Agreement (PSA)	This Memorandum of Understanding (MOU) covers cooperation between NASA and the Italian Space Agency (ASI) on the Juno mission to Jupiter. ASI is providing the Jovian Infrared Auroral Mapper (JIRAM) and Ka-Band Transponder (Ka-T) instruments.	12/7/2022	12/31/2026
283		Italy - Italian Space Agency (ASI)	Implementing Arrangement between NASA and ASI for Cooperation on the Surface, Biology and Geology (SBG) Mission	Project-Specific Agreement (PSA)	ASI is providing the spacecraft, instrument, and the Launch Vehicle.	10/27/2023	6/30/2036
284		Italy - Italian Space Agency (ASI)	Memorandum of Understanding (MOU) Between NASA and Italian Space Agency (ASI) Concerning Cooperation the BepiColombo Mission	Project-Specific Agreement (PSA)	Memorandum of Understanding (MOU) between the National Aeronautics and Space Administration of the United States of America and the Italian Space Agency (ASI) Concerning Cooperation the BepiColombo Mission.	12/29/2023	12/31/2032
285	Headquarters (HQ)	Japan - Government of Japan	Framework Agreement between the Government of Japan and the Government of the United States for Cooperation in the Exploration and Use of Outer Space	Umbrella/Framework Agreement (UM/FW)	Civil Space Framework	1/13/2023	1/13/2123
286	Headquarters (HQ)	Japan - Japan Aerospace Exploration Agency (JAXA)	MOU between NASA and JAXA Concerning Cooperation on the Martian Moons eXploration (MMX) Mission	Project-Specific Agreement (PSA)	MMX is a JAXA-led mission to the Martian moons Phobos and Deimos, to return a sample and observe the geology, chemistry, and history of the Mars system and the origin of the moons. JAXA will build the MMX spacecraft and NASA will provide the MEGANE instrument, P-sampler, science team participation; and receive a portion of the sample.	4/17/2023	4/17/2034
287	Headquarters (HQ)	Japan - Japan Aerospace Exploration Agency (JAXA)	Letter Agreement under the Joint Understanding b/t NASA and JAXA Concerning OSIRIS-REx re-entry observations (HORIS)	Project-Specific Agreement (PSA)	Re-entry observations of OSIRIS-REx in September. The partners are contributing sensor(s) and plan to collaborate on this re-entry campaign led by the SCLIFLI team out of Langley. The JAXA agreement also includes an additional contact pad to JAXA for their sample curation and collaboration on a contact pad extraction system.	7/12/2023	12/31/2028
288	Headquarters (HQ)	Japan - Japan Aerospace Exploration Agency (JAXA)	NASA-JAXA Artemis Study Agreement	Project-Specific Agreement (PSA)	NASA and JAXA plan to establish joint study teams related to lunar surface and cis-lunar cooperation in NASA's Artemis program. The Artemis program will lay the foundation for sustainable lunar exploration and use the Moon to validate deep space systems and operations before embarking on the much farther voyage to Mars. The Artemis program will utilize NASA's Space Launch System (SLS) rocket, a Human Landing System (HLS), a pressurized crew rover, along with the Gateway and other elements.	8/3/2023	7/31/2028

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
289	Headquarters (HQ)	Japan - Japan Aerospace Exploration Agency (JAXA)	Extension: Cooperation on the Venus Climate Orbiter (VCO)/Planet-C Mission (Akatsuki)	Project-Specific Agreement (PSA)	This is an extension of the October 5, 2009, agreement for cooperation on the JAXA-led Venus Climate Orbiter (VCO)/Planet-C mission, named Akatsuki. It provides participating scientists and deep space network (DSN) support, extended for 5 more years. This agreement is associated with the Joint Understanding with JAXA.	11/9/2023	12/31/2028
290	Headquarters (HQ)	Japan - Japan Aerospace Exploration Agency (JAXA), Japan - Ministry of Environment (MOE), Japan - National Institute for Environmental Studies (NIES)	Implementing Arrangement for Cooperation on the GOSAT, OCO, and TEMPO Missions	Implementing Arrangement/Agreement (IA)	Implementing Arrangement under the 2023 Framework Agreement between the Government of Japan and the Government of the United States for Cooperation in the Exploration and Use of Outer Space.	11/21/2024	11/21/2034
291	Headquarters (HQ)	Japan - National Institute for Materials Science	Loan of OSIRIS-REx Samples to National Institute for Materials Science	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/8/2024	10/8/2027
292	Headquarters (HQ)	Japan Aerospace Exploration Agency (JAXA)	NASA-JAXA Joint Understanding	Umbrella/Framework Agreement (UM/FW)	This document is similar to a framework agreement wherein NASA and JAXA have agreed upon standard legal text when concluding lower-level cooperative letters of agreement. There is no contribution from either party.	10/16/2008	12/31/2100
293	Headquarters (HQ)	Japan Aerospace Exploration Agency (JAXA)	Hayabusa-2 and OSIRIS-REx Memorandum of Understanding (MOU)	Project-Specific Agreement (PSA)	Hayabusa2 is a JAXA mission, on which NASA is collaborating, which builds on lessons learned from JAXA's initial Hayabusa mission that collected samples from a small asteroid named Itokawa and returned them to Earth in June 2010. Hayabusa-2's target is a 1 kilometer-wide asteroid named 1999 JU3, a C-type asteroid which is thought to contain more organic material than other asteroids. Scientists hope to better understand how the solar system evolved by studying samples from these asteroids. NASA and JAXA are cooperating on the mission science and NASA will receive a portion of the Hayabusa2 sample in exchange for providing Deep Space Network communications and navigation support for the mission. In addition, JAXA and NASA will collaborate on the science of NASA's Origins, Spectral Interpretation, Resource Identification, Security - Regolith Explorer (OSIRIS-REx) mission to mutually maximize their missions' results. OSIRIS-REx, the first U.S. asteroid sample return mission, is scheduled to launch in 2016. OSIRIS-REx will rendezvous with the 500-meter-long asteroid Bennu in 2019 for detailed reconnaissance and a return of samples to Earth in 2023.	11/17/2014	11/17/2025
294	Headquarters (HQ)	Japan Aerospace Exploration Agency (JAXA)	Agreement Between the National Aeronautics and Space Administration of the United States of American and The Japan Aerospace Exploration Agency for Cooperation on the JAXA-led Smart Lander for Investigating Moon (SLIM) mission.	Project-Specific Agreement (PSA)	The Institute of Space and Astronautical Science (ISAS) of JAXA is developing the SLIM mission. The SLIM lander aims to achieve a small scale, light weight probe system and pinpoint landing technology. NASA's planned contribution to this mission includes a laser retroreflector array (LRA), Deep Space Network (DSN) support services, and coordination with the NASA Lunar Reconnaissance Orbiter (LRO).	12/7/2021	12/31/2028
295		Korea Astronomy and Space Science Institute (KASI)	Agreement between the National Aeronautics and Space Administration of the United States of America and the Korea Astronomy and Space Science Institute for Space Geodesy	Project-Specific Agreement (PSA)	Cooperation to share space geodetic data, processed geodetic products, and conduct scientific and technical exchange in the field of space geodesy.	5/26/2020	6/30/2030

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
296	Headquarters	Korea Astronomy and Space Science Institute (KASI)	NASA-KASI Lunar Space Environment Monitor (LUSEM) instrument delivery on CLPS	Implementing Arrangement/Agreement (IA)	LUSEM instrument by KASI is expected to be delivered to the lunar surface on the CLPS CP-11 2024 delivery to Reiner Gamma by Intuitive Machines.	12/9/2022	12/9/2028
297	Headquarters	Korea, Republic of - Korea AeroSpace Administration (KASA)	Framework Agreement Between the Government of the United States of America and the Government of the Republic of Korea for Cooperation in Aeronautics and the Exploration and Use of Airspace and Outer Space for Civil and Peaceful Purposes	Umbrella/Framework Agreement (UM/FW)	Framework Agreement which sets for the terms and conditions for cooperation between the parties in aeronautics and the exploration and use of airspace and outer space for civil and peaceful purposes in areas of common interest. US-ROK Framework Agreement; New Dip notes added to designate the Korea AeroSpace Administration (KASA) as an Implementing Agency.	10/21/2024	11/3/2026
298	Headquarters	Korea, Republic of - Korea AeroSpace Administration (KASA)	Artemis Study Phase Letter Agreement between the National Aeronautics and Space Administration (NASA) and the Korea AeroSpace Administration (KASA)	Project-Specific Agreement (PSA)	Study Phase letter agreement between NASA and KASA to facilitate technical discussions on potential Korean contributions to the Artemis program.	10/30/2024	10/30/2029
299	Headquarters	Korea, Republic of - Korea Astronomy and Space Science Institute (KASI)	Agreement between the National Aeronautics and Space Administration and the Korea Aerospace Administration for Cooperation to Formulate Activities Related to a Potential KASA-led Earth- Sun Lagrange Point 4	Project-Specific Agreement (PSA)	To define a mission concept, analyze the relevance of L4 mission concept to space radiation safety for human exploration of the Moon and Mars, and analyze data transmission options from L4 to the ground via optical communications and optical relay use.	9/19/2024	9/19/2029
300	Headquarters (HQ)	Korea, Republic of - The National Institute of Environmental Research of the Republic of Korea (NIER)	Amendment of the Memorandum of Understanding Between the National Aeronautics and Space Administration of the United States of America and the National Institute of Environmental Research of the Republic of Korea Concerning Cooperation in Pollution Studies, Calibration, and Validation	Project-Specific Agreement (PSA)	Amendment to the agreement Agreement to conduct calibration and validation of the NIER GEMS and NASA TEMPO instruments, which include ultraviolet spectrometers that will monitor daily variations in ozone, nitrogen dioxide, sulfur dioxide, formaldehyde, glyoxal, and other key elements of air pollution.	6/23/2023	12/11/2028
301		Luxembourg - Ministry of Economy, Luxembourg Space Agency		Umbrella/Framework Agreement (UM/FW)	Framework Agreement Note - Will correct entry to force date once diplomatic notes are received.	12/13/2024	12/12/2034
302	Headquarters (HQ)	Mad Science Group (MSG)	ANNEX 1 between NASA and Mad Science Group Inc under the Non reimbursable Space Act Umbrella Agreement for Cooperation in STEM Education and Engagement Activities Through Interactive Science Enrichment Programs	Umbrella/Framework Agreement (UM/FW)	To continue the partnership between NASA and the MSG Academy of Future Space Explorers (AFSE) begun in 2006, & to expand the partnership to include other STEM-based joint programming.	3/15/2022	3/14/2027

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
303	Headquarters (HQ)	Mad Science Group (MSG)	Non reimbursable Space Act Umbrella Agreement between NASA and the Mad Science Group (MSG) or Cooperation in Science, Technology, Engineering, and Mathematics (STEM) Education and Engagement Activities	Umbrella/Framework Agreement (UM/FW)	Purpose of this Agreement is to continue the partnership between NASA and the MSG Academy of Future Space Explorers (AFSE) begun in 2006, & to expand the partnership to include other STEM-based joint programming.	3/15/2022	3/14/2027
304	Headquarters (HQ)	Ministry of Basic Education and Culture	Global Learning and Observations to Benefit the Environment (GLOBE)		The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	10/8/1997	12/31/2100
305	Headquarters (HQ)	Ministry of Basic Education of the Republic of Botswana	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement	The GLOBE Program is an international environmental science and education program that brings students, teachers, and scientists together to study the global environment. GLOBE has created an international network of students at primary, middle and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international science community.	6/26/2018	6/26/2100
306	Headquarters (HQ)	Ministry of Business, Innovation and Employment (MBIE)	Agreement between the National Aeronautics and Space Administration and the Ministry of Business, Innovation and Employment Concerning the Collection and Analysis of Surface Scattering Measurements	Project-Specific Agreement (PSA)	In this cooperative effort, NASA and New Zealand Space Agency will install a GPS radar receiver on Air New Zealand commercial flights to make frequent and ongoing soil moisture measurements along the aircraft?s domestic routes in New Zealand, collecting data over a wide range of terrains, seasons, and surface conditions that will be used to calibrate and validate the NASA Cyclone Global Navigation Satellite System (CYGNSS) Earth Venture mission?s measurements.	10/22/2019	10/22/2029
307	Headquarters (HQ)	Ministry of Business, Innovation and Employment (MBIE)	US - New Zealand Framework Agreement	Umbrella/Framework Agreement (UM/FW)	This Framework Agreement (hereinafter referred to as the "Agreement") sets forth the obligations, terms and conditions for cooperation between the Parties, or their designated Implementing Agencies, in civil aeronautics research and the exploration and use of outer space for peaceful purposes in areas of common interest and on the basis of equality and mutual benefit.	8/9/2022	11/9/2032
308	Headquarters (HQ)	Ministry of Culture and Education	Global Learning and Observations to Benefit the Environment (GLOBE)		The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	6/28/1995	12/31/2100
309	Headquarters (HQ)	Ministry of Ecology and Biological Resources	Global Learning and Observations to Benefit the Environment (GLOBE)		The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	3/27/1995	12/31/2100
310	Headquarters (HQ)	Ministry of Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	3/20/1995	12/31/2100
311	Headquarters (HQ)	Ministry of Education	Global Learning and Observations to Benefit the Environment (GLOBE)		The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	3/24/1995	12/31/2100
312	Headquarters (HQ)	Ministry of Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	4/21/1995	12/31/2100

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
313	Headquarters (HQ)	Ministry of Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	5/22/1995	12/31/2100
314	Headquarters (HQ)	Ministry of Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	6/9/1995	12/31/2100
315	Headquarters (HQ)	Ministry of Education	Global Learning and Observations to benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	12/11/1995	12/31/2100
316	Headquarters (HQ)	Ministry of Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	6/19/1996	12/31/2100
317	Headquarters (HQ)	Ministry of Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	7/16/1996	12/31/2100
318	Headquarters (HQ)	Ministry of Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	1/21/1997	12/31/2100
319	Headquarters (HQ)	Ministry of Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	1/28/1997	12/31/2100
320	Headquarters (HQ)	Ministry of Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	1/30/1997	12/31/2100
321	Headquarters (HQ)	Ministry of Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	4/2/1997	12/31/2100
322	Headquarters (HQ)	Ministry of Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	5/29/1997	12/31/2100
323	Headquarters (HQ)	Ministry of Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	6/20/1997	1/1/2100
324	Headquarters (HQ)	Ministry of Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	9/15/1997	12/31/2100
325	Headquarters (HQ)	Ministry of Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	3/20/1998	12/31/2100
326	Headquarters (HQ)	Ministry of Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	4/16/1998	12/31/2100

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
327	Headquarters (HQ)	Ministry of Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	3/10/1999	12/31/2100
328	Headquarters (HQ)	Ministry of Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	5/27/1999	12/31/2100
329	Headquarters (HQ)	Ministry of Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	2/29/2000	12/31/2100
330	Headquarters (HQ)	Ministry of Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	3/2/2000	12/31/2100
331	Headquarters (HQ)	Ministry of Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	3/3/2000	12/31/2100
332	Headquarters (HQ)	Ministry of Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	6/16/2001	12/31/2100
333	Headquarters (HQ)	Ministry of Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	7/15/2002	12/31/2100
334	Headquarters (HQ)	Ministry of Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	3/26/2003	12/31/2100
335	Headquarters (HQ)	Ministry of Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	8/24/2005	12/31/2100
336	Headquarters (HQ)	Ministry of Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	11/29/2007	12/31/2100
337	Headquarters (HQ)	Ministry of Education and Culture	Global Learning and Observations to benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	11/24/1998	12/31/2100
338	Headquarters (HQ)	Ministry of Education and Culture and the Secretariat of the Environment	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	10/27/2000	12/31/2100
339	Headquarters (HQ)	Ministry of Education and Economic Development of Bermuda	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	4/1/1997	12/31/2100

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
340	Headquarters (HQ)	Ministry of Education and Economic Development of Bermuda	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	7/3/2014	1/1/2100
341	Headquarters (HQ)	Ministry of Education and Economic Development of Bermuda	Extension 1: Agreement Between NASA and the Ministry of Transport of the Government of Bermuda for Space Flight Temporary Mobile Tracking Station	Project-Specific Agreement (PSA)	Extension 1: Agreement between NASA and the Ministry of Transport of the Government of Bermuda for a Space Flight Temporary Mobile Tracking Station.	6/30/2016	6/30/2026
342	Headquarters (HQ)	Ministry of Education and Higher Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	9/27/2000	12/31/2100
343	Headquarters (HQ)	Ministry of Education and Popular Development	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	12/23/1997	12/31/2100
344	Headquarters (HQ)	Ministry of Education and Science	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	9/8/1998	12/31/2100
345	Headquarters (HQ)	Ministry of Education and Science	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	1/27/1999	12/31/2100
346	Headquarters (HQ)	Ministry of Education and Science	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	10/3/2002	12/31/2100
347	Headquarters (HQ)	Ministry of Education and Sport	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	4/12/1995	12/31/2100
348	Headquarters (HQ)	Ministry of Education and Sport	Agreement between the National Aeronautics and Space Administration of the United States of America and the Ministry of Education, Science and Sport of the Republic of Slovenia for Cooperation in the GLOBE Program	Project-Specific Agreement (PSA)	The GLOBE Program is an international environmental science and education program that brings students, teachers, and scientists together to study the global environment. GLOBE has created an international network of students at primary, middle and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international science community.	12/3/2020	12/3/2100
349	Headquarters (HQ)	Ministry of Education and the Department of Environmental Protection	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	1/30/1995	12/31/2100
350	Headquarters (HQ)	Ministry of Education and the Environment	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	10/28/1998	12/31/2100
351	Headquarters (HQ)	Ministry of Education of the Islamic Republic of Mauritania	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	7/6/2004	1/1/2100

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
352	Headquarters (HQ)	Ministry of Education of the Sultanate of Oman	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE Program is an international environmental science and education program that brings students, teachers, and scientists together to study the global environment. GLOBE has created an international network of students at primary, middle, and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international science community.	12/8/2009	1/1/2100
353	Headquarters (HQ)	Ministry of Education, Culture, Science, and Technology for the Government of Belize	GLOBE with MoECST	Project-Specific Agreement (PSA)	The GLOBE Program is an international environmental science and education program that brings students, teachers, and scientists together to study the global environment. GLOBE has created an international network of students at primary, middle and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international science community.	9/8/2022	9/8/2100
354	Headquarters (HQ)	Ministry of Education, Science, Technology and Scientific Research	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	8/21/2003	12/31/2100
355	Headquarters (HQ)	Ministry of Education, Youth, and Sport	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	4/20/1995	12/31/2100
356	Headquarters (HQ)	Ministry of Environment	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	10/31/1996	12/31/2100
357	Headquarters (HQ)	Ministry of Environment	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	12/23/1998	12/31/2100
358	Headquarters (HQ)	Ministry of Environment	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE Program is an international environmental science and education program that brings students, teachers, and scientists together to study the global environment. GLOBE has created an international network of students at primary, middle and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international science community.	1/30/2018	12/21/2500
359	Headquarters (HQ)	Ministry of Environment and Forests	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	8/25/2000	12/31/2100
360	Headquarters (HQ)	Ministry of Environment of Tunisia	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	7/27/1995	12/31/2100
361	Headquarters (HQ)	Ministry of Environment, Local Government, and Rural Development	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	11/18/1997	12/31/2100
362	Headquarters (HQ)	Ministry of Environment, Natural Resources, and Fisheries	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	11/15/1996	12/31/2100

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
363	Headquarters (HQ)	Ministry of Foreign Affairs	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists, together to study the global environment.	8/24/1998	12/31/2100
364	Headquarters (HQ)	Ministry of Foreign Affairs	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	8/9/2000	12/31/2100
365	Headquarters	Ministry of Housing, Land Use Planning, and the Environment	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	4/21/1995	12/31/2100
366		Ministry of National Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	4/28/1995	12/31/2100
367		Ministry of National Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	5/5/1995	12/31/2100
368		Ministry of National Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	3/27/1996	12/31/2100
369		Ministry of National Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	11/6/1998	12/31/2100
370		Ministry of National Education and Professional Training	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	10/10/1996	12/31/2100
371		Ministry of National Education and Professional Training	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	11/13/1997	12/31/2100
372	Headquarters (HQ)	Ministry of National Education and Religious Affairs	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	12/12/1995	12/31/2100
373		Ministry of Planning and Cooperation	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	9/27/1995	12/31/2100
374		Ministry of Pre-University Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	5/14/1998	12/31/2100
375	Headquarters	Ministry of Primary and Secondary Education of the Republic of Congo	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	7/28/2005	12/31/2100
376		Ministry of Science and Culture	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	5/30/1997	12/31/2100

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
377	Headquarters (HQ)	Ministry of Science and Technology	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	10/4/2000	12/31/2100
378		Ministry of Secondary and Primary Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	6/11/1997	12/31/2100
379	Headquarters	Ministry of Secondary, Higher Education and Scientific Research	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	12/18/1998	12/31/2100
380		Ministry of Sustainable Development and Planning (MDSP)	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	4/22/1995	12/31/2100
381	Headquarters (HQ)	Ministry of the Environment	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	3/24/1995	12/31/2100
382	'	Ministry of the Environment and Energy	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	4/22/1996	12/31/2100
383		Multilateral - European Space Research Organization (ESRO)	Memorandum of Understanding Between The National Aeronautics and Space Administration of the United States of America (NASA) and the European Space Agency (ESA) concerning the BepiColombo mission.	Project-Specific Agreement (PSA)	Cooperation/Exchange between NASA and ESA regarding BepiColombo. ESA will be obtaining scientific data from instruments aboard the BepiColombo spacecraft and allowing NASA-funded scientists to participate in all mission phases. In exchange, NASA will provide ESA with additional Deep Space Network (DSN) coverage in order to support these activities.	3/29/2023	12/31/2032
384		Multilateral - European Space Research Organization (ESRO)	Memorandum of Understanding Between The National Aeronautics and Space Administration of The United States of America and the European Space Agency Concerning the ESA-Led Ariel Mission	Implementing Arrangement/Agreement (IA)	Cooperation between NASA and ESA on launching a space telescope which is expected to observe a large number of known exoplanets to study and characterise the planets' chemical composition and thermal structures. ESA will design and implement the overall mission, design/launch/operate the Ariel spacecraft, along with providing ground station network support during flight operations. NASA will provide Sensor Chip Electronic (SCE) components and provide necessary hardware for the Fine Guidance System (FGS).	3/29/2023	12/31/2033
385	Headquarters (HQ)	Nagoya University of Japan	NASA-University of Nagoya Agreement for the Imaging X-ray Polarimetry Explore (IXPE) Mission	Project-Specific Agreement (PSA)	Nagoya university hardware contribution to the IXPE mission.	2/27/2018	12/31/2026
386		National Agency for Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	8/23/1995	12/31/2100
387	'	National Board of Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	3/23/1995	12/31/2100

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
388	Headquarters (HQ)	National Central School of Agriculture	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	12/5/1997	12/31/2100
389	Headquarters (HQ)	National Centre for Space Studies (CNES)	Global Learning and Observations to Benefit the Environment (GLOBE)	Implementing Arrangement/Agreement (IA)	The GLOBE Program is an international environmental science and education program that brings students, teachers, and scientists together to study the global environment. GLOBE has created an international network of students at primary, middle, and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international science community.	10/27/2020	9/16/2040
390	Headquarters (HQ)	National Centre for Space Studies (CNES)	NASA-CNES Lunar Surface Electromagnetic Experiment (LuSEE) Agreement	Implementing Arrangement/Agreement (IA)	CNES is contributing a Search Coil Magnetometer (SCM) to the LUSEE payload, that will be on the NASA CLPS "CP-12" Draper delivery.	9/20/2022	9/20/2032
391	Headquarters (HQ)	National Centre for Space Studies (CNES)	NASA-CNES Farside Seismic Suite (FSS) instrument delivery on CLPS	Implementing Arrangement/Agreement (IA)	FSS instrument, with a contribution of a seismometer by CNES, is expected to be delivered to the lunar surface on the CLPS CP-12 2025 delivery to Schrödinger Basin by Draper	11/30/2022	11/30/2028
392	Headquarters (HQ)	National Centre for Space Studies (CNES),European Organization for the Exploitation of Meteorological Satellites (EUMETSAT)	Memorandum of Understanding (MOU) among National Oceanographic and Atmospheric Administration (NOAA), NASA, European Organization for the Exploitation of Meteorological Satellites (EUMETSAT) and National Center for Space Studies [Centre National d'Estudes Spatiales] (CNES) for Cooperation in the Jason-3 Program	Project-Specific Agreement (PSA)	Memorandum of Understanding (MOU): The Jason-3 Program will design to provide continuity to the accuracy and coverage of the Topex/Poseidon, Jason-1 and OSTM/Jason-2 missions. These three missions collected data for scientific research and support operational applications related to extreme weather events, operational oceanography, climate applications and forecasting. NOAA and The European Organization for the Exploitation of Meteorological Satellites (EUMETSAT) are the lead agencies. NASA and CNES are providing hardware to NOAA and EUMETSAT under separate domestic agreements. NASA's involvement in collaborative activities is very limited NASA is supporting NOAA in science selection and, in return, obtaining science data.	7/13/2010	12/31/2030
393		National Department of Education	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	11/7/1997	12/31/2100
394	Headquarters (HQ)	National Environmental Agency	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	7/12/1996	12/31/2100
395	Headquarters (HQ)	National Environmental Council	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	7/18/1997	12/31/2100

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
396	Headquarters (HQ)	Netherlands - Delft University of Technology (DUT)	TuDelft Marconi 2.0 Quantum Comm Study Agreement	Project-Specific Agreement (PSA)	Cooperative study agreement to to explore potential collaboration on technology development for quantum communications and networking, quantum sensors for applications in space-based science and observation, and observatories with ground and adaptive/synchronization capabilities. Such technology development may include modeling of the system and components for predicting the performance of various use cases and/or applications; blind computing; distributed quantum computations; and Very Long Baseline Interferometry ("VLBI"). In addition, the Parties are interested in potential collaboration on architecture studies and development of future quantum missions for technology demonstration and testing of related capabilities, including related training, education and workforce development.	4/12/2023	4/12/2025
397	Headquarters	Netherlands - Koninklijk Netherlands Meteorologisch Instituut (KNMI)	Amendment and Extension No.1 of the agreement between the National Aeronautics and Space Administration of the United States of America and the State of the Netherlands Koninklijk Nederlands Meteorologisch Institut For Cooperation in Calibration and Validation of the Tropospheric Monitoring Instrument (Tropomi) instrument	Project-Specific Agreement (PSA)	NASA will transport ozone profiling instruments, including up to two lidar instruments, to the Cesar Observatory in Cabauw, Netherlands, where KNMI will conduct a calibration and validation measurement campaign of the TROPOspheric Monitoring Instrument (TropOMI), an instrument on the European Sentinel 5P satellite.	7/17/2024	7/31/2029
398	Headquarters (HQ)	Netherlands - The Netherlands Organization of Applied Scientific Research (TNO)	TNO Marconi 2.0 Quantum Comm Study Agreement	Project-Specific Agreement (PSA)	Cooperative study agreement to to explore potential collaboration on technology development for quantum communications and networking, quantum sensors for applications in space-based science and observation, and observatories with ground and adaptive/synchronization capabilities. Such technology development may include modeling of the system and components for predicting the performance of various use cases and/or applications; blind computing; distributed quantum computations; and Very Long Baseline Interferometry ("VLBI"). In addition, the Parties are interested in potential collaboration on architecture studies and development of future quantum missions for technology demonstration and testing of related capabilities, including related training, education and workforce development.	4/12/2023	4/12/2025
399		New Zealand - New Zealand Space Agency (NZSA)	Non-Reimbursable Space Act Agreement between NASA and the Ministry of Business, Innovation and Employment, acting through its business unit the New Zealand Space Agency, for Collaboration on Cislunar Space Situational Awareness Research	Project-Specific Agreement (PSA)	The CAPSTONE mission offers a unique opportunity to observe a small object (12U CubeSat, ~25 kg) that has a known trajectory, thereby providing important and relevant data on the observation capabilities of well-characterized optical telescopes equipped with SSA enhancements, looking for spacecraft near the Moon. Under this collaboration, NZSA will use optical telescopes at the University of Canterbury and at the University of New South Wales or Earth-based cislunar observation of NASA's CAPSTONE spacecraft in the near vicinity of the Moon. The objective is to demonstrate a cislunar optical sensor containing fourth-order adaptive optics with new innovative optical coherence discriminators to improve the detection of artificial satellites in the region of 0.24 to 4 degrees from the limb of the Moon. NASA intends to provide NZSA with CAPSTONE ephemeris updates during the ballistic lunar transfer phase to NRHO, with additional updates during the observation phase, to enable telescope pointing.	5/24/2022	5/30/2025
400		Polar Knowledge Canada (POLAR)	Amendment 2: Agreement between NASA and Polar Knowledge Canada for Cooperation in the Arctic Boreal Vulnerability Experiment (ABoVE)	Project-Specific Agreement (PSA)	Amendment 2: NASA and Polar Knowledge Canada will cooperate on the Arctic Boreal Vulnerability Experiment to study how social-ecological systems in high northern latitude regions of northwestern North America are responding and feeding back to environmental and social change.	5/14/2021	5/14/2026

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
401	Headquarters (HQ)	Republic of Marshall Islands Government	Global Learning and Observations to Benefit the Environment (GLOBE)		The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	10/17/1996	12/31/2100
402	Headquarters (HQ)	Russia - Ministry of Foreign Affairs	U.SRussia Duty-Free Agreement	Umbrella/Framework Agreement (UM/FW)	Extension 4: Procedure for duty-free entry of goods transported within the framework of the U.SRussia Civil Space Agreement	9/16/2021	8/25/2026
403	Headquarters (HQ)	Russian Federal Space Agency (Roskosmos)	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	12/16/1994	12/31/2100
404	Headquarters (HQ)	Russian Federal Space Agency (Roskosmos)	Agreement Between the United States of America and the Russian Federation Concerning Cooperation in the Exploration and Use of Outer Space for Peaceful Purposes	Umbrella/Framework Agreement (UM/FW)	Amendment 5: Extended by an exchange of diplomatic notes. Government to Government Agreement between the U.S. and the Russian Federation for Cooperation in the Exploration and Use of Outer Space for Peaceful Purposes. Crosscutting. Dip Notes extended the Agreement from June 17, 2007, through June 16, 2012. Russia Dip Note No. 10778 dated 3 Dec 2007, U.S. Dip Note MFA No. 153-07, dated 26 Dec 2007, and State Cable 169755 delivered U.S. Dip Note on 27 Dec 2007.		12/31/2030
405	Headquarters (HQ)	Sweden - Swedish National Space Agency (SNSA)	Implementing Arrangement under Framework Agreement with Sweden, for the loan of Omega Watch worn by Swedish Astronaut	Arrangement/Agreement (IA)	This loan agreement continues OCOM's loan to SNSA of NASA's Omega Watch, originally worn by Swedish citizen and former ESA Astronaut Christer Fuglesang on Space Shuttle Missions STS-116 and STS-128, for public display and education.	4/14/2020	4/13/2025
406	Headquarters (HQ)	Switzerland - University of Bern	Letter agreement between University of Bern and NASA on SSERVI	Project-Specific Agreement (PSA)	University of Bern, acting through the Swiss (CH) Exploration, Education, and Science Endeavor (CHEESE), to join as an Affiliate Member of the NASA Solar System Exploration Research Virtual Institute (SSERVI)	6/14/2024	11/1/2034
407	Headquarters (HQ)	The Environment Research Centre, Ministry of Home Affairs and Environment of the Republic of Maldives	Global Learning and Observations to Benefit the Environment (GLOBE)	I(PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	12/8/2003	12/31/2100
408	Headquarters (HQ)	The Ministry of Education and Human Resources, Tertiary Education and Scientific Research of the Republic of Mauritius	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE Program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	10/5/2015	10/5/2100
409	Headquarters (HQ)	The Ministry of Education and Youth	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The Globe program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	7/12/2000	12/31/2100
410	Headquarters (HQ)	The Ministry of National Education	Global Learning and Observations to Benefit the Environment (GLOBE)		The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	8/11/2003	12/31/2100

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
411	Headquarters (HQ)	The Republic of Seychelles	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE Program is an international environmental science and education program that brings students, teachers, and scientists together to study the global environment. GLOBE has created an international network of students at primary, middle and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international science community.	6/13/2017	8/25/2100
412	Headquarters (HQ)	United Arab Emirates - United Arab Emirates Space Agency (UAESA)	Framework Agreement Between the Government of the United States of America and the Government of the Unite Arab Emirates for Cooperation in Aeronautics and the Exploration and Use of Airspace and Outer Space for Peaceful Purposes	Umbrella/Framework Agreement (UM/FW)	Framework Agreement which sets the obligations, terms and conditions for cooperation between the Parties in aeronautics and the exploration and use of airspace and outer space for peaceful purposes in areas of common interest.	6/12/2016	8/18/2028
413	Headquarters (HQ)	United Arab Emirates Space Agency (UAESA)	Implementing Arrangement between the National Aeronautics and Space Administration of the United States of America and the United Arab Emirates Space Agency for Cooperation in Human Spaceflight	Implementing Arrangement/Agreement (IA)	Identify areas of interest within human space flight, including robotics and human spaceflight activities, utilization of ISS and Gateway, field studies, ground based research, and analog studies in various scientific domains such as space biology, physical sciences, and human research, utilizing UAE and NASA facilities such as the UAE Mars Science City and the NASA Human Exploration Research Analog; STEM; training of crew, and the possibility of an Emirati as a member of the ISS crew. Contribute to Mars Science City requirements.	10/1/2018	9/30/2028
414	Headquarters (HQ)	United Kingdom - United Kingdom Space Agency (UKSA)	Agreement between UKSA and NASA on the Lunar Advanced Filter Observing Radiometer for Geologic Exploration (LAFORGE) instrument	Project-Specific Agreement (PSA)	LAFORGE is a multispectral imaging infrared radiometer instrument funded by the NASA Science Mission Directorate's Lunar Discovery and Exploration Program and developed by the Johns Hopkins Applied Physics Laboratory (APL). LAFORGE is expected to be delivered to the lunar surface on board Canada's first lunar rover. The Canadian rover, with its integrated science payloads, is expected to be delivered to the lunar surface via NASA's Commercial Lunar Payload Services (CLPS) initiative. LAFORGE is designed to measure ultra-low temperatures in permanently shadowed regions (PSRs) for water ice, providing critical data for lunar science. The University of Oxford is planning to provide the Multispectral Filter Block Assembly (FBA) to the instrument. Jet Propulsion Laboratory (JPL) is expected to provide the Focal Plane Array (FPA).	6/14/2024	10/31/2032
415	Headquarters (HQ)	United Kingdom Space Agency (UKSA)	Memorandum of Understanding Between the National Aeronautics and Space Administration and the United Kingdom Space Agency for the Provision of the Interstellar Mapping and Acceleration Probe (IMAP) Magnetometer	Project-Specific Agreement (PSA)	Cooperation on the Interstellar Mapping and Acceleration Probe (IMAP) mission. IMAP mission is part of NASA+s Solar Terrestrial Probe Program. It is expected to provide the first comprehensive in situ and remote global observations to discover the fundamental physical processes that control the solar system's evolving space environment. UKSA will contribute a magnetometer.	9/22/2021	3/31/2029

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
416	Headquarters (HQ)	United Nations Environment Programme (UNEP)	Agreement between the National Aeronautics and Space Administration (NASA) of the United States of America and the United Nations Environment Programme (UNEP) for Collaboration in the Promotion and Execution of the Global Learning and Observations to Benefit the Environment (GLOBE) Program and UNEP Activities	Project-Specific Agreement (PSA)	The Global Learning and Observation to Benefit the Environment (GLOBE) Program is an international environmental science and education program, established by the United States Government on Earth Day on April 12, 1994, whose efforts led by the National Aeronautics and Space Administration to bring students, teachers, and scientists together to study the global environment. GLOBE has created an international network of students at primary, middle and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international science community. In parallel to NASA?s efforts through GLOBE, UNEP promotes environmental education, awareness, and training to inspire, inform and enable the nations and its citizens worldwide to improve their quality of life without compromising that of the future generations.	4/25/2019	4/25/2100
417	Headquarters (HQ)	University of Bern	Letter of Agreement between NASA and the University of Bern for Cooperation on the Interstellar Mapping and Acceleration Probe (IMAP) Mission	Project-Specific Agreement (PSA)	The Interstellar Mapping and Acceleration Probe mission will determine the properties of the interstellar medium and the acceleration of suprathermal particles. In the cooperation, University of Bern will provide the IMAP Lo and IMAP Hi instruments as well as calibration for the instruments. This activity also involves data exchange and cooperation research.	2/14/2021	2/24/2028
418	Headquarters (HQ)	University of Bern	Extension - Agreement for the Strofio Instrument on the BepiColombo Mission	Project-Specific Agreement (PSA)	The University of Bern in Switzerland will provide the ion source system for the Strofio instrument that will be a part of the Serena payload on the ESA-led BepiColombo mission to Mercury.	7/30/2022	12/31/2030
419	Headquarters (HQ)	University of Bern	NASA-University of Bern: Laser Ablation Ionization Mass Spectrometer (LIMS) instrument delivery on CLPS	Project-Specific Agreement (PSA)	LIMS is an analytical tool to support field measurements and analyze regolith properties, consisting of a miniature reflectron-type Time-of-Flight (RTOF) mass analyzer and pulsed laser system. LIMS is expected to provide chemical analysis of lunar soils and high quality in-situ solids. LIMS is expected to be delivered to the Moon via NASA's Commercial Lunar Payload Services (CLPS) program. This flight is expected to be a technology demonstration of LIMS to further optimize the instruments' in-situ data analysis and concept of operations to enable a future Artemis mission.	10/8/2022	10/8/2032
420		Vietnam Academy of Science and Technology of the Socialist Republic of Vietnam	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE program is an international environmental science and education program that will bring students, teachers, and scientists together to study the global environment.	12/9/2015	12/31/2100
421	Headquarters	World Meteorological Organization Global Atmosphere Watch Programme (WMO/GAW)	Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The Global Learning and Observations to Benefit the Environment (GLOBE) Program is an international environmental science and education program that brings students, teachers, and scientists together to study the global environment. GLOBE has created an international network of students at primary, middle and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international science community.	9/25/2017	9/25/2100
422	Headquarters (HQ)		Global Learning and Observations to Benefit the Environment (GLOBE)	Project-Specific Agreement (PSA)	The GLOBE Program is an international environmental science and education program that brings students, teachers, and scientists together to study the global environment. GLOBE has created an international network of students at primary, middle and secondary school levels studying environmental issues, making environmental measurements, and sharing useful environmental data with one another and the international science community.	10/25/2019	12/31/2100

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
423	Headquarters (HQ),Jet Propulsion Laboratory (JPL)	ESA - European Space Agency	Extension 4: MOU Between NASA and ESA Concerning the Mars Express Mission	Project-Specific Agreement (PSA)	Extension 4; The terms and conditions by which relevant aspects of the cooperation between NASA and European Space Agency (ESA) shall be conducted within the framework of the Mars Express mission. Primary activities address telecommunications necessary for Mars Express mission operations, navigation and data acquisition. The mission will study Martian atmosphere and the surface of the planet. Extension 2: The terms and conditions by which relevant aspects of the cooperation between NASA and European Space Agency (ESA) shall be conducted within the framework of the Mars Express mission. Primary activities address telecommunications necessary for Mars Express mission operations, navigation and data acquisition. The mission will study Martian atmosphere and the surface of the planet.	12/15/2023	12/31/2026
424	Headquarters (HQ),Jet Propulsion Laboratory (JPL)	European Space Agency (ESA)	Memorandum of Understanding between NASA and the European Space Agency (ESA) concerning the Flight Elements of the Mars Sample Return (MSR) Campaign	Project-Specific Agreement (PSA)	Under this MOU, NASA will provide the Sample Retrieval Lander and ESA will provide the Earth Return Orbiter to the joint MSR campaign. NASA and ESA expect each spacecraft to launch in 2026 and return Martian samples to Earth in 2031. The NASA Mars 2020 rover will collect the samples.	10/5/2020	9/30/2033
425	Headquarters (HQ),Jet Propulsion Laboratory (JPL)	European Space Agency (ESA)	Peregrine Ion Trap Mass Spectrometer (PITMS)	Project-Specific Agreement (PSA)	NASA will build, launch, and operate the PITMS instrument utilizing the Commercial Lunar Payload Services Program. ESA will provide the Exospheric Mass Spectrometer (EMS) component.	12/22/2020	6/30/2026
426	Headquarters (HQ),Jet Propulsion Laboratory (JPL)	Germany - The Federal Agency for Cartography and Geodesy of Germany (BKG)	Agreement between NASA and the Federal Agency for Cartography and Geodesy of Germany for cooperation in Space Geodesy	Project-Specific Agreement (PSA)	Space Geodesy Cooperation	9/8/2021	9/8/2031
427	Headquarters (HQ),Jet Propulsion Laboratory (JPL)	University of Zurich (UZH)	2nd Extension to NASA-University of Zurich (UZH) Reimbursable Agreement	Project-Specific Agreement (PSA)	Through this Agreement and its Amendments, NASA will, on a reimbursable basis, develop and deliver to UZH an aircraft-compatible version of the sensor head that is part of the existing Compact Wide Imaging Spectrometer (CWIS) currently tested at JPL. NASA will build, calibrate, and deliver the sensor head to UZH. For clarity and traceability, this new development is designated CWIS-11. UZH will then integrate the CWIS-11 imaging spectrometer sensor head onto a suitable research aircraft.	12/20/2022	5/31/2027
	Headquarters (HQ),Jet Propulsion Laboratory (JPL),Johnson Space Center (JSC)	Institute of Space and Astronautical Science (ISAS),Japan Aerospace Exploration Agency (JAXA)	NASA-JAXA Agreement for CubeSat Communications and 3-Way Doppler Support on Artemis I	Project-Specific Agreement (PSA)	A new collaborative agreement between NASA and JAXA in support of deep space communications cooperation for Artemis I. In this Agreement, under the NASA-JAXA Joint Understanding, NASA is providing JAXA with communications and tracking support for its two planned CubeSats, EQUULEUS and OMOTENASHI, while JAXA is providing 3-Way Doppler support to NASA for the MPCV as it travels beyond LEO.	8/4/2020	8/3/2025
429	Headquarters (HQ),Johnson Space Center (JSC)	Australia - Curtin University of Technology	Loan of OSIRIS-REx Samples to Curtin University	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/31/2023	10/31/2026
430	Headquarters (HQ),Johnson Space Center (JSC)	Australia - Curtin University of Technology	Loan of OSIRIS-REx Samples to Curtin University	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/31/2023	10/31/2026

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
431	Headquarters (HQ),Johnson Space Center (JSC)	Australia - Curtin University of Technology	Loan of OSIRIS-REx Samples to Curtin University	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/31/2023	10/31/2026
432		Australia - Curtin University of Technology	Loan of OSIRIS-REx Samples to Curtin University	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/31/2023	10/31/2026
433		Australia - Curtin University of Technology	Loan of OSIRIS-REx Samples to Curtin University	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/31/2023	10/31/2026
434		Australia - Curtin University of Technology	Loan of OSIRIS-REx Samples to Curtin University	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/31/2023	10/31/2026
435	(,,,-	Australia - The University of Queensland	Loan of OSIRIS-REx Samples to University of Queensland - MTA	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	11/8/2023	11/8/2026
436		Canada - Royal Ontario Museum	Loan of OSIRIS-REx Samples to Royal Ontario Museum	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	9/20/2023	9/20/2026
437		Canada - University of British Columbia	Loan of OSIRIS-REx Samples to University of British Columbia	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/20/2023	10/20/2026
438	Headquarters (HQ),Johnson Space Center (JSC)	Canada - University of Calagry	Loan of OSIRIS-REx Samples to the University of Calagry	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	9/20/2023	9/20/2026
439	Headquarters (HQ),Johnson Space Center (JSC)	Canada - University of Calagry	Loan of OSIRIS-REx Samples to the University of Calagry	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	9/20/2023	9/20/2026
440		Canada - University of Winnipeg	Loan of OSIRIS-REx Samples to University of Winnipeg	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/20/2023	10/20/2026
441	Headquarters (HQ),Johnson Space Center (JSC)	Canada - York University	Loan of OSIRIS-REx Samples to York University	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/6/2023	10/6/2026

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
442	Headquarters (HQ),Johnson Space Center (JSC)	ESA - European Space Agency	NASA - ESA LEO Cargo Return Service (LCRS) RSAA	Project-Specific Agreement (PSA)	RSAA to facilitate NASA integration of ESA LCRS vehicle with ISS	12/17/2024	12/31/2030
443	Space Center	France - Centre de Recherches Petrographiques et Geochimiques	Loan of OSIRIS-REx Samples to Centre de Recherches Petroghaphiques et Giochimiques	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/6/2023	10/6/2026
444	(HQ), Johnson Space Center	France - Centre de Recherches Petrographiques et Geochimiques	Loan of OSIRIS-REx Samples to Centre de Recherches Petroghaphiques et Giochimiques	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/6/2023	10/6/2026
445	(HQ),Johnson	France - Centre de Recherches Petrographiques et Geochimiques	Loan of OSIRIS-REx Samples to Centre de Recherches Petroghaphiques et Giochimiques	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/6/2023	10/6/2026
446	(HQ), Johnson Space Center	France - Centre de Recherches Petrographiques et Geochimiques	Loan of OSIRIS-REx Samples to Centre de Recherches Pétrographiques et Géochimiques	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/6/2023	10/6/2026
447	(HQ),Johnson Space Center	France - Centre de Recherches Petrographiques et Geochimiques	Loan of OSIRIS-REx Samples to Centre de Recherches Pétrographiques et Géochimiques	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/6/2023	10/6/2026
448	(HQ),Johnson Space Center	France - Centre de Recherches Petrographiques et Geochimiques	Loan of OSIRIS-REx Samples to Centre de Recherches Petroghaphiques et Geochimiques	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/6/2023	10/6/2026
449		France - Observatoire de la Cote d'Azur (OCA)	Loan of OSIRIS-REx Samples to Observatoire de la Cote d'Azur - OCA_NASA	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/6/2023	10/6/2026
450		Germany - Goethe University Frankfurt	Loan of OSIRIS-REx Samples to Goethe University of Frankfurt	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/20/2023	10/20/2026
451	(HQ),Jonnson	Germany - HelmholtzZentrum Muenchen	Loan of OSIRIS-REx Samples to Hemholtz Zentrum Munchen Deutches Forchungzentrum fur Gesundheit	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/6/2023	10/6/2026
452	Headquarters (HQ),Johnson Space Center (JSC)	Japan - Hokkaido University (HokuDai)	Loan of OSIRIS-REx Samples to Hokkaido University	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	9/20/2023	9/20/2026

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
453	Headquarters (HQ),Johnson Space Center (JSC)	Japan - Hokkaido University (HokuDai)	Loan of OSIRIS-REx Samples to University of Hokkaido	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/6/2023	10/6/2026
454	Headquarters (HQ),Johnson Space Center (JSC)	Japan - Hokkaido University (HokuDai)	Loan of OSIRIS-REx Samples to Hokkaido University	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/6/2023	10/6/2026
455	Headquarters (HQ),Johnson Space Center (JSC)	Japan - Japan Aerospace Exploration Agency (JAXA)	NASA-JAXA Joint Understanding Multi- layer Acoustic and Conductive-grid Sensor (MACS) and Space Debris Bread Board HTV-X Model	Project-Specific Agreement (PSA)	NASA and JAXA have identified a mutual interest in in-situ measurements to characterize the millimeter-sized orbital debris populations in low-Earth orbit (LEO). The purpose of this Agreement is to establish an agreement for the Parties to design, build, test, and deliver a Multi-layer Acoustic and Conductive-grid Sensor (MACS) (a NASA-JAXA sensor that helps measure the impact of orbital debris) flight hardware unit for a future ISS tech demonstration mission.	9/29/2023	3/31/2027
456	Headquarters (HQ),Johnson Space Center (JSC)	Japan - Japan Agency for Marine-Earth Science and Technology	Loan of OSIRIS-REx Samples to the Japan Agency for Marine-Earth Science and Technology	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	9/20/2023	9/20/2026
457	Headquarters (HQ),Johnson Space Center (JSC)	Japan - Japan Agency for Marine-Earth Science and Technology	Loan of OSIRIS-REx Samples to Japan Agency for Marine-Earth Science and Technology	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.		9/20/2026
458	Headquarters (HQ),Johnson Space Center (JSC)	Japan - Kyushu University	Loan of OSIRIS-REx Samples to National University Corporation Kyushu University	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/20/2023	10/20/2026
459	Headquarters (HQ),Johnson Space Center (JSC)	Japan - Nagoya University of Japan	Loan of OSIRIS-REx Samples to Nagoya University	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/6/2023	10/6/2026
460	Headquarters (HQ),Johnson Space Center (JSC)	Japan - Ritsumeikan University	Loan of OSIRIS-REx Samples to Ritsumeikan University	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	9/20/2023	9/20/2026
461	Headquarters (HQ),Johnson Space Center (JSC)	Japan - Tohoku University	Loan of OSIRIS-REx Samples to Tohoku Univeristy	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/6/2023	10/6/2026
462	Headquarters (HQ),Johnson Space Center (JSC)	Japan - University of Tokyo	Loan of OSIRIS-REx Samples to the University of Tokyo	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/6/2023	10/6/2026

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
463	Headquarters (HQ),Johnson Space Center (JSC)	Korea, Republic of - Korea Aerospace Research Institute (KARI)	Extension No. 1 of the Implementing Arrangement Between NASA and Korea Aerospace Research Institute (KARI) for Cooperation on the Korea Pathfinder Lunar Orbiter (KPLO) Mission	Implementing Arrangement/Agreement (IA)	Implementing Arrangement (IA) with NASA/Korea where NASA provides instruments for integration into KARI's lunar orbiter. NASA will also provide mission design and navigation support.	3/4/2024	12/31/2028
464	Headquarters (HQ),Johnson Space Center (JSC)	Russia - Russian Federal Space Agency (Roscosmos)	Third Amendment to Implementing Arrangement between National Aeronautics and Space Administration of the United States of America and State Space Corporation "Roscosmos" (Russian Federation) concerning Flying Integrated Crews on U.S. and Russian Crew Transportation Vehicles.	Implementing Arrangement/Agreement (IA)	Third Amendment to the implementing Arrangement between NASA and ROSCOSMOS concerning Flying Integrated Crews on Russian and U.S. Crew Transportation Vehicles, signed on July 14, 2022, as amended.	1/23/2025	12/31/2028
465	Headquarters (HQ),Johnson Space Center (JSC)	Switzerland - ETH Zurich	Loan of OSIRIS-REx Samples to ETH Zurich	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/6/2023	10/6/2026
466	Headquarters (HQ),Johnson Space Center (JSC)	Switzerland - ETH Zurich	Loan of OSIRIS-REx Samples to ETH Zurich	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.		10/6/2026
467	Headquarters (HQ),Johnson Space Center (JSC)	United Kingdom - Natural History Museum	Loan of OSIRIS-REx Samples to Natural History Museum	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	9/20/2023	9/20/2026
468	Headquarters (HQ),Johnson Space Center (JSC)	United Kingdom - Natural History Museum	Loan of OSIRIS-REx Samples to Natural History Museum	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	9/20/2023	9/20/2026
469	Headquarters (HQ),Johnson Space Center (JSC)	United Kingdom - Natural History Museum	Loan of OSIRIS-REx Samples to Natural History Museum	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	9/20/2023	9/20/2026
470	Headquarters (HQ),Johnson Space Center (JSC)	United Kingdom - Natural History Museum	Loan of OSIRIS-REx Samples to Natural History Museum	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	9/20/2023	9/20/2026
471	Headquarters (HQ),Johnson Space Center (JSC)	United Kingdom - Open University	Loan of OSIRIS-REx Samples to the Open University	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/6/2023	10/6/2026

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
472	Headquarters (HQ),Johnson Space Center (JSC)	United Kingdom - The Open University	Loan of OSIRIS-REx Samples to the Open Univeristy	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/6/2023	10/6/2026
473	Headquarters (HQ),Johnson Space Center (JSC)	United Kingdom - The Open University	Loan of OSIRIS-REx Samples to Open Univeristy	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/6/2023	10/6/2026
474	Headquarters (HQ),Johnson Space Center (JSC)	United Kingdom - The University of Oxford	Loan of OSIRIS-REx Samples to University of Oxford	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/31/2023	10/31/2026
475	Headquarters (HQ),Johnson Space Center (JSC)	United Kingdom - University of Manchester	Loan of OSIRIS-REx Samples to University of Manchester	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/20/2023	10/20/2026
476	Headquarters (HQ),Johnson Space Center (JSC)	United Kingdom - University of Manchester	Loan of OSIRIS-REx Samples to the University of Manchester	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/20/2023	10/20/2026
477	Headquarters (HQ),Johnson Space Center (JSC)	United Kingdom - University of Manchester	Loan of OSIRIS-REx Samples to University of Manchester	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/20/2023	10/20/2026
478	Headquarters (HQ),Johnson Space Center (JSC)	United Kingdom - University of Manchester	Loan of OSIRIS-REx Samples to University of Manchester	Project-Specific Agreement (PSA)	OSIRIS-REx sample loans to international partners on the OSIRIS-REx sample science team. Samples from the asteroid Bennu. Sample curation managed by JSC Astromaterials group.	10/20/2023	10/20/2026
479	Headquarters (HQ),Wallops Flight Facility (WFF)	Canada - Environment Canada	Extension No. 5 to the Agreement between the National Aeronautics and Space Administration (NASA) of the United States of America and Environment Canada (EC) of Canada for Cooperation on the Global Precipitation Measurement (GPM) Cold-Season Precipitation Validation Experiment (GCPEX) Project.	Project-Specific Agreement (PSA)	Amendment No. 5 - NASA and ECCC scientists will "characterize the ability of multi-frequency active and passive microwave sensors to detect and estimate falling snow to improve GPM snowfall retrieval algorithms. The derived data products from field campaigns over Canadian ground sites will advance NASA precipitation modeling and Earth observation data validation objectives for the GPM and CloudSat missions.	11/21/2024	1/31/2030
480	Jet Propulsion Laboratory (JPL)	Canada - Canadian Space Agency (CSA)	Extension No. 5 to the Implementing Arrangement between the National Aeronautics and Space Administration of the United States of America and the Canadian Space Agency on the Mars Science Laboratory Mission.	Implementing Arrangement/Agreement (IA)	CSA provided the Alpha Particle X-ray Spectrometer instrument for NASA's Mars Science Laboratory mission.	11/21/2023	9/30/2028

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
481	Jet Propulsion Laboratory (JPL)	Colombian Geological Survey (CGS) (formerly National Institute for Geology and Mineralogy (INGEOMINAS)	Memorandum of Understanding (MOU) Between the National Aeronautics and Space Administration and The Colombian Geological Survey (CGS) Concerning Cooperation on Space Geodesy	Project-Specific Agreement (PSA)	Memorandum of Understanding (MOU) Agreement (follows on from CO-0004-0) to support the continued operations of established Global Navigation and Satellite System (GNSS) sites, and establishment of new Space Geodesy research sites in Colombia. This Agreement follows on from a previous Agreement with the same institution, formerly known as the National Institute for Geology and Mineralogy.	10/24/2018	10/24/2028
482	Jet Propulsion Laboratory (JPL)	Commonwealth Scientific and Industrial Research Organization (CSIRO)	Cooperating Agency Arrangement Between the National Aeronautics and Space Administration of the United States of America and the Commonwealth Scientific and Industrial Research Organization of the Commonwealth of Australia for the Management and Operations of Space Vehicle Tracking and Communication Facilities in Australia	Implementing Arrangement/Agreement (IA)	Amendment 3: Full update and amendment to the original 1981 Cooperating Agency Arrangement. This Cooperating Agency Arrangement is pursuant to AS-0126-0, Government to Government Agreement, February 26, 1980, as amended, between NASA and CSIRO to implement the cooperative program for establishment, modification, management, operation, maintenance, support, and termination of NASA tracking and communications facilities in Australia. This Cooperating Agency Arrangement has the same period of performance as the Government to Government Agreement, initially February 26, 1990, then extended to February 26, 2000, and February 26, 2010, and then to February 2018; in February 2018, a completely updated version was signed, extending cooperation until February 2043.	10/11/2018	2/26/2043
483	Jet Propulsion Laboratory (JPL)	Commonwealth Scientific and Industrial Research Organization (CSIRO),Government of Australia	Amendment 7: Space Vehicle Tracking and Communications Facilities in Australia	Project-Specific Agreement (PSA)	Amendment 7: The 7th Amendment to the Government-to-Government Agreement, signed in October 2017 and formally ratified by Australian Parliament in Feb 2018, extending the agreement until Feb 26, 2043. The 6th Amendment to the Government-to-Government Agreement, signed on March 27, 2014, retroactive to Feb 26, 2012, and extending until Feb 26, 2018. The 5th Amendment to the Government-to-Government Agreement, signed on January 11, 2012, and extending until Feb 26, 2014. The 4th Amendment to the Government-to-Government agreement, signed on March 17, 2010, retroactive to Feb 26, 2010, and extending until Feb 26, 2012. The 3rd Amendment to the Government to Government Agreement, did Oct 26, 2000, retroactive to Feb 26, 2000, amending the Agreement significantly, establishing CSIRO as the Cooperating Agency, and extending it to Feb 26, 2010. The 2nd Amendment was dated and effective on May 2, 1990. The first amendment was dated and entered into force on Jul 21, 1982. The basic Diplomatic-level agreement provided for cooperation in the establishment, modification, management, operation, maintenance, support, and termination of NASA tracking and communications facilities in Australia. NASA and the Australian Department of Science and the Environment are designated as the cooperating agencies in the Agreement. The diplomatic notes for the basic agreement were exchanged on May 29 1980, but entered into force retroactive to Feb 26, 1980.	10/17/2017	2/26/2043
484	Jet Propulsion Laboratory (JPL)	D-Wave Systems Inc.	Amendment and Extension 4: Space Act Agreement Between NASA and D-Wave Systems Inc., as Amended, for Adiabatic quantum Computing Fabrication Process Development	Project-Specific Agreement (PSA)	Amendment and Extension 4: Cooperation involves adiabatic quantum computing fabrication process development. Amendment will continue JPL support of the development of an Adiabatic Quantum Annealing approach to solving complex optimization problems. JPL will handle fabri-cation and diagnostic characterization in support of D-Wave's fabrication process development while D-Wave continues to handle the fabrication process, circuit designs and functional testing.	2/17/2022	8/31/2027
485	Jet Propulsion Laboratory (JPL)	ESA - European Space Agency	Amendment No.2 - Memorandum of Understanding (MOU) Between NASA and European Space Agency (ESA) Concerning the 2016 ExoMars Mission	Project-Specific Agreement (PSA)	Amendment No.2 - NASA provides communications support for this operational ESA orbiting mission at Mars.	5/6/2024	12/31/2033

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
486	Jet Propulsion Laboratory (JPL)	ESA - European Space Agency	Implementing Arrangement Between the National Aeronautics and Space Administration of the United States of America and the European Space Agency for Cooperation on the Copernicus Polar Ice and Snow Topography Altimeter (CRISTAL) Mission	Implementing Arrangement/Agreement (IA)	CRISTAL is a European mission to measure and monitor variability of Arctic and Southern Ocean sea-ice thickness and its snow depth and to measure/monitor the surface elevation and changes therein of polar and continental glaciers, ice caps and the Antarctic and Greenland ice sheets. NASA providing a payload, supporting mission management, providing call/val, and providing operations support for the NASA payload.	10/1/2024	6/30/2040
487	Jet Propulsion Laboratory (JPL)	European Organization for the Exploitation of Meteorological Satellites (EUMETSAT),European Space Agency (ESA)	Sentinel-6/Jason-CS	Project-Specific Agreement (PSA)	Cooperation on development and launch of the Sentinel-6/Jason-CS mission.	12/14/2016	12/31/2040
488	Jet Propulsion Laboratory (JPL)	European Space Agency (ESA)	Amendment 1: Memorandum of Understanding (MOU) Between NASA and European Space Agency (ESA) Concerning the Euclid Mission	Project-Specific Agreement (PSA)	Amendment 1: Memorandum of Understanding (MOU) between NASA and ESA to continue cooperation on the ESA-led Euclid astrophysics mission under a MOU that entered into force on January 10, 2013. The amendment covers the management of Euclid science operations and data archives, including the integration of the NASA-provided Science Data Center (SDC-US); the selecting of other NASA-funded collaborators including the U.S. Lead Scientist, the provision and operation of the Euclid NASA Science Center, and the conducting of qualification and evaluation activities for the NISP. MOU covering NASA-ESA cooperation on the ESA-led Euclid astrophysics mission. Covers NASA provision of the Near Infrared Spectrograph and Photometer (NISP) instrument sensor chip system.	12/20/2016	7/1/2025
489	Jet Propulsion Laboratory (JPL)	France - National Centre for Space Studies (CNES)	Amendment 2: Implementing Arrangement Between NASA and CNES Seismic Experiment for Interior Structure (SEIS) Instrument for the Interior Exploration Using Seismic Investigations, Geodesy, and Heat Transport (INSIGHT) Mission	Implementing Arrangement/Agreement (IA)	CNES instrument contributions to NASA spacecraft and science cooperation.	4/5/2023	12/31/2027
490	Jet Propulsion Laboratory (JPL)	German Research Centre for Geosciences (GFZ)	Amendment of the MOU between NASA and GFZ for Cooperation on the Gravity Recovery and Climate Experiment Followon (GRACE-Follow On) Mission	Project-Specific Agreement (PSA)	GRACE-FO is a continuation of the science initiated by the United States-German GRACE mission that was launched in 2002. The primary objective of GRACE-FO is to acquire critical data for tracking water movement on and beneath the Earth's surface and understanding changes in ice sheets and global sea levels. Its data will enhance studies of ocean currents and changes in the structure of solid Earth. GRACE-FO will do this by continuing the extremely high-resolution global data record of the Earth's gravity field and how it changes over time. These gravity fields assist in the study of global climatic issues by improving our understanding, among other things, of surface and deep ocean currents, lithospheric and mantle density variations, aquifer depletion, and polar ice sheet mass variations. As with the GRACE mission, GRACE-FO will acquire the gravity field data using two Earth polar-orbiting spacecraft identically equipped and flying in a loosely controlled tandem formation. As the satellites orbit the Earth, variations in the Earth's gravity field will cause the distance between the two GRACE-FO spacecraft to change. The microwave link between the two GRACE-FO spacecraft will measure these changes at the micron level. These measurements will then be used to determine the Earth's gravity field every month. Launch is planned for August 2017 on a GFZ-provided Launch Vehicle.	3/15/2022	12/31/2026

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491	Jet Propulsion Laboratory (JPL)	Germany - German Aerospace Center (DLR)	Amendment and Extension 3: Agreement for the Mars Science Laboratory (MSL) Radiation Assessment Detector (RAD) Instrument	Project-Specific Agreement (PSA)	DLR provided the RAD instrument for NASA's MSL mission	12/6/2022	12/31/2030
492	Jet Propulsion Laboratory (JPL)	Germany - German Aerospace Center (DLR)	Amendment 2: Implementing Arrangement for Cooperation on the Interior Exploration of Seismic Investigations, Geodesy and Heat Transport (INSIGHT) Mission	Implementing Arrangement/Agreement (IA)	DLR provided an instrument for the NASA spacecraft	12/9/2022	12/31/2027
493	Jet Propulsion Laboratory (JPL)	India - Indian Institute of Technology, Delhi (IITD)	Agreement between the National Aeronautics and Space Administration of the United States of America and the India Institute of Technology - Delhi Concerning Cooperation on Air Quality Ground Monitoring to Support the Multi- Angle Imager for Aerosols	Project-Specific Agreement (PSA)	IITD will host NASA instruments to collect data to contribute to the MAIA mission.	11/9/2022	11/9/2032
494		Indian Space Research Organization (ISRO)	NASA-Indian Space Research Organization (ISRO) Synthetic Aperture Radar (NISAR)	Implementing Arrangement/Agreement (IA)	This Implementing Arrangement (IA) for the NASA-ISRO Synthetic Aperture Radar (NISAR) mission is concluded under and subject to the Framework Agreement between the National Aeronautics and Space Administration and the Indian Space Research Organisation for Cooperation in the Exploration and Use of Outer Space for Peaceful Purposes, signed on February 1, 2008. In this cooperative activity, NASA will provide: the L-band Synthetic Aperture Radar (SAR) instrument, including a reflector/boom assembly; a high rate telecommunication subsystem for science data; GPS receivers; a solid state recorder; and a payload data subsystem. ISRO will provide: the S-band SAR; the spacecraft bus; and the launch vehicle and associated launch services. NASA will download all science data to U.S. ground stations and ISRO will download selected science data and telemetry data to ISRO's ground station. The NISAR mission will make global measurements of the causes and consequences of land surface changes. Potential areas of research include ecosystem disturbances, ice sheet collapse and natural hazards. The NISAR mission is optimized to measure subtle changes of the Earth's surface associated with motions of the crust and ice surfaces.	9/30/2014	9/30/2034
495	Jet Propulsion Laboratory (JPL)	Indian Space Research Organization (ISRO)	Airborne Synthetic Aperture Radar (ASAR) Airborne Campaign	Implementing Arrangement/Agreement (IA)	NASA, in partnership with ISRO, using a NASA C-20A/G-III aircraft carrying the ISRO L- and S-band ASAR instrument, shall fly a remote sensing mission campaign over North America. NASA will provide a C-20A/G-III aircraft and associated radar instrument pod, and ISRO will provide the L- and S-band Airborne Synthetic Aperture Radar (ASAR) instrument.	10/9/2019	10/9/2029
496		Indian Space Research Organization (ISRO)	AVIRIS-NG Airborne Campaign extension	Implementing Arrangement/Agreement (IA)	NASA will provide a C-20A/G-III aircraft and associated radar instrument pod, and ISRO will provide the L- and S-band Airborne Synthetic Aperture Radar (ASAR) instrument. NASA, in partnership with ISRO, using a NASA C-20A/G-III aircraft carrying the ISRO L- and S-band ASAR instrument, shall fly a remote sensing mission campaign over North America.	5/29/2020	9/24/2025

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497	Jet Propulsion Laboratory (JPL)	Italian Space Agency (ASI)	Implementing Arrangement between NASA and ASI for Cooperation on the Surface Biology and Geology Phase A Study	Implementing Arrangement/Agreement (IA)	NASA and ASI are cooperating on Phase A studies for the Earth System Observatory (ESO) Surface Biology and Geology (SBG) mission. The IA only covers the Phase A period and does not signify a commitment by either Implementing Agency for further mission formulation or implementation.	4/19/2022	4/19/2025
498	Jet Propulsion Laboratory (JPL)	Italian Space Agency (ASI)	Implementing Arrangement between NASA and ASI for Cooperation on the Multi-angle Imager for Aerosols Mission	Implementing Arrangement/Agreement (IA)	ASI will provide a spacecraft, launch vehicle and a portion of the ground system for the MAIA observatory.	1/12/2023	9/30/2032
499	Jet Propulsion Laboratory (JPL)	Italy - Italian Space Agency (ASI)	Implementing Arrangement between the National Aeronautics and Space Administration of the United States of America and the Italian Space Agency of the Italian Republic on the 2005 Mars Reconnaissance Orbiter Mission	Implementing Arrangement/Agreement (IA)	ASI provided the SHARAD instrument for NASA's MRO mission	12/29/2023	12/28/2033
500	Jet Propulsion Laboratory (JPL)	Italy - Italian Space Agency (ASI)	Extension to MOU between NASA and the Italian Space Agency (ASI) for Cooperation on the Nuclear Spectroscopic Telescope Array (NuSTAR) mission.	Project-Specific Agreement (PSA)	Extends LOA for through 2033 to continue work on NuSTAR mission while on orbit.	12/29/2023	12/31/2033
501	Jet Propulsion Laboratory (JPL)	Japan - Japan Aerospace Exploration Agency (JAXA)	Extension 2 - NASA-JAXA Agreement for High-Power Testing Capabilities for JAXA's New Deep Space Antenna	Project-Specific Agreement (PSA)	Extension 2 - NASA and JAXA is seeking to extend its 2017 agreement (as amended in 2019) to provide high power testing capabilities for JAXA's new deep space antenna (Misasa) in consideration of JAXA's providing future tracking hours for NASA on that antenna. In this Agreement, JAXA and NASA will jointly coordinate with two U.S. vendors to test the performance of the JAXA transmitter components at NASA test facilities. In return, JAXA will provide NASA with commensurate tracking time on its new deep space antenna, Misana. The required testing of the transmitter components and the JAXA provisioning of time on its Misasa antenna will be conducted quid-proquo on a no-exchange-of-funds basis.	8/29/2023	8/26/2025
502	Jet Propulsion Laboratory (JPL)	Japan Aerospace Exploration Agency (JAXA)	NASA-JAXA Collaboration on Very Long Baseline Interferometry (VLBI) observations between JAXA's Misasa and NASA's Deep Space Network (DSN) stations	Project-Specific Agreement (PSA)	Collaborative agreement between NASA and JAXA, for the two agencies to carry out Very Long Baseline Interferometry (VLBI) observations between JAXA's Misasa and NASA's DSN stations in order to jointly define a set of celestial and terrestrial reference frames, which would enhance collaboration among the agencies.	12/23/2021	7/11/2031
503	Jet Propulsion Laboratory (JPL)	Korea Astronomy and Space Science Institute (KASI)	Spectro-Photometer for the History of the Universe, Epoch of Reionization, and Ices Explorer (SPHEREX)	Project-Specific Agreement (PSA)	The SPHEREx observatory will consist of a spacecraft bus and the telescope/spectrometers payload instrument. NASA will have overall responsibility for the SPHEREx mission. KASI will provide cryogenic ground support equipment, selected SPHEREx science data support, and participate in the SPHEREx science team.	10/15/2019	12/31/2027

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
504	Jet Propulsion Laboratory (JPL)	Korea, Republic of - Gwangju Institute of Science and Technology	Memorandum of Understanding Between the National Aeronautics and Space Administration of the United States of America and the Gwangju Institute of Science and Technology of the Republic of Korea Concerning the Cooperation on the Soil Moisture Active Passive (SMAP) Satellite Calibration and Validation Program	Project-Specific Agreement (PSA)	GIST will act as a Cal/Val partner for the NASA SMAP Satellite mission. NASA and GIST intend to cooperate to develop a training program for the benefit of researchers in East Asia. Cooperation will enable further scientific interactions and discussions on the use of datasets produced for terrestrial water cycle research, hydrology, and agriculture.	11/6/2024	11/6/2029
505	Jet Propulsion Laboratory (JPL)	Ministry of Emergency Situations	Agreement between NASA and the Ministry of Emergency Situations for Cooperation in Space Geodetic Research	Project-Specific Agreement (PSA)	Cooperation on space geodetic research through one or more Global Positioning System (GPS) ground stations in Armenia, including a GPS ground station at Yerevan.	10/5/2019	1/1/2100
506	Jet Propulsion Laboratory (JPL)	National Centre for Space Studies (CNES)	Implementing Arrangement (IA) Between NASA and the National Centre for Space Studies (CNES) on the Mars Science Laboratory (MSL) Mission	Implementing Arrangement/Agreement (IA)	Implementing Arrangement (IA) between NASA and CNES in providing significant portions of the Sample Analysis at Mars (SAM) and the Laser-Induced Remote Sensing for Chemistry and Micro-Imaging (ChemCam) payloads on the NASA Mars Science Laboratory (MSL) mission. This IA is under the U.SFrench Umbrella.	1/11/2022	12/31/2025
507	Jet Propulsion Laboratory (JPL)	National Centre for Space Studies (CNES)	Second Amendment to the Implementing Arrangement between NASA and CNES for Cooperation on the Surface Water and Ocean Topography (SWOT) Mission	Implementing Arrangement/Agreement (IA)	Second Amendment to the Implementing Arrangement (IA) Between NASA and CNES. NASA plans to provide the Payload Module, Ka-band Radar Interferometer (KaRIn), Microwave Radiometer (MR) with its antenna, Laser Retroreflector Array (LRA), Global Positioning System receiver package, launch services, and ground segment elements. The National Centre for Space Studies (CNES) plans to provide the spacecraft bus, KaRIn Radio Frequency Unit (RFU), nadir altimeter, Doppler Orbitography and Radiopositioning Integrated by Satellite (DORIS) receiver package, and ground segment elements.	9/26/2022	6/15/2032
508	Jet Propulsion Laboratory (JPL)	National Commission on Space Activities (CONAE)	Memorandum of Understanding Between the National Aeronautics and Space Administration of the United States of America (NASA) and the Comision Nacional De Actividades Espaciales of the Argentine Republic (CONAE) For Cooperation in Space Geodetic Research	Project-Specific Agreement (PSA)	NASA and the National Commission on Space Activities (CONAE) established a permanent geodetic ground station at the Teofilo Tabanera Space Center of CONAE in Cordoba, Argentina. These stations will contribute data to the Global Geodetic Observing System (GGOS) to improve the accuracy of global and regional geodetic measurements. This extension will continue the work for an additional 10 years, with the possibility of establishing future stations.	3/8/2022	10/26/2031
509	Jet Propulsion Laboratory (JPL)	National Institute for Aerospace Technology (INTA),The Spanish Centro para el Desarrollo Technologico Industrial (CDTI)	Amendment: Implementation Agreement (IA) Between NASA, Center for the Development of Industrial Technology (CDTI), and National Institute of Aerospace Technology (INTA) Concerning Cooperation on the Mars Science Laboratory (MSL) Mission	Implementing Arrangement/Agreement (IA)	Amendment: Implementation Agreement (IA): In addition to extending the Mars Science Laboratory (MSL) cooperation, this amendment adds the Spanish provision of the High Gain Antenna (HGA) to the Mars 2020 mission and the Temperature and Wind on InSight (TWINS) sensors on the Interior Exploration using Seismic Investigations, Geodesy, and Heat Transport (InSight) mission.	6/16/2015	12/31/2025
510	Jet Propulsion Laboratory (JPL)	Norway - University of Oslo	Extension No. 1 of the Mars 2020 Radar Imager for Mars Subsurface Experiment (RIMFAX) Agreement	Project-Specific Agreement (PSA)	NASA launched Norway's RIMFAX on the Perseverance Rover	6/12/2024	11/30/2034

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
511	Jet Propulsion Laboratory (JPL)	Survey of Israel (SOI)	Agreement between the National Aeronautics and Space Administration (NASA) of the United States of America and the State of Israel Ministry of Construction and Housing Survey of Israel (SOI) for cooperation in space geodetic research.	Project-Specific Agreement (PSA)	To extend current geodetic collaboration between NASA and SOI by continuing use of GPS Ground Station(s) in Israel to improve accuracy of Global and Regional Geodetic Measurements	3/1/2022	7/31/2032
512	Jet Propulsion Laboratory (JPL)	United Kingdom - King's College London	Extension No. 1 Agreement Between King's College London (KCL) and the National Aeronautics and Space Administration (NASA) of the United States of America Concerning Cooperation on Joint European Airborne Imaging Spectrometer Science Campaign	Project-Specific Agreement (PSA)	NASA/King's College London will fly remote sensing campaigns at science, calibration, and validation sites throughout Europe with JPL airborne imaging spectrometers using KCL-provided Twin Otter aircraft.	6/10/2024	4/29/2034
513	Johnson Space Center (JSC)	Australia - Australian National University (ANU)	Agreement between NASA and Australian National University for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	8/29/2022	8/28/2027
514	Johnson Space Center (JSC)	Australia - Canberra Deep Space Communication Complex (CDSCC) to the Australian Museum	Agreement between NASA and The Canberra Deep Space Communication Complex for the Loan of Lunar samples	Project-Specific Agreement (PSA)	The Canberra Deep Space Communication Complex proposes to use the Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Lunar Sample Curator at JSC and approved by the Sample Curator.	1/28/2021	7/31/2026
515	Johnson Space Center (JSC)	Australia - Monash University	Agreement between NASA and Monash University for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	5/24/2022	5/23/2027
516	Johnson Space Center (JSC)	Australia - Museum of Applied Arts and Sciences - Powerhouse Museum	Agreement between NASA and Museum of Applied Arts and Sciences - Powerhouse Museum for the Loan of Lunar samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Lunar Sample Curator at JSC and approved by the Sample Curator.	10/14/2020	7/31/2025
517	Johnson Space Center (JSC)	Australia - The University of Queensland	Agreement between NASA and The University of Queensland for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	4/11/2023	4/11/2028
518	Johnson Space Center (JSC)	Australia - University of Adelaide	Agreement between NASA and University of Adelaide for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	4/8/2022	4/7/2027
519	Johnson Space Center (JSC)	Austria - Natural History Museum	Agreement between NASA and the Natural History Museum for the Loan of Lunar samples	Project-Specific Agreement (PSA)	Principal Investigator use the Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Lunar Sample Curator at JSC and approved by the Sample Curator.	1/27/2021	7/31/2026

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
520	Johnson Space Center (JSC)	Belgium - Free University of Brussels	Agreement between NASA and the Free University of Brussels for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.	5/20/2021	5/20/2026
521	Johnson Space Center (JSC)	Belgium - Vrije University Brussels (VUB)	Agreement between NASA and the Vrije Universiteit Brussel for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.	5/20/2021	5/20/2026
522	Johnson Space Center (JSC)	Brazil - Museu Nacional	Agreement between NASA and Museu Nacional/UFRJ for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	1/25/2022	1/25/2027
523	Johnson Space Center (JSC)	Canada - Camp Spatial Canada	Agreement between NASA and Camp Spatial Canada for the Loan of Lunar samples	Project-Specific Agreement (PSA)	Camp Spatial Canada proposes to use the Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Lunar Sample Curator at JSC and approved by the Sample Curator.	1/21/2021	7/31/2026
524	Johnson Space Center (JSC)	Canada - Canadian Space Agency (CSA)	Liaison Agreement Relating to the Memorandum of Understanding Between the Canadian Space Agency and the United States National Aeronautics and Space Administration on Cooperation in the Detailed Design, Development, Operation and Utilization of the Permanently Manned Civil Space Station	Project-Specific Agreement (PSA)	The Liason Agreement between NASA and CSA outlines the exchange of personnel necessary to coordinate Space Station activities under the ISS MOU and Space Station Intergovernmental Agreement.	11/7/1991	12/31/2030
525	Johnson Space Center (JSC)	Canada - University of Alberta	Agreement between the National Aeronautics and Space Administration and University of Alberta for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	4/30/2024	4/30/2029
526	Johnson Space Center (JSC)	Canada - University of Winnipeg	Agreement between NASA and the University of Winnipeg for the Loan of Lunar Samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the lunar samples to undertake scientific investigations.	4/18/2022	10/31/2026
527	Johnson Space Center (JSC)	Canada - University of Winnipeg	Agreement between NASA and University of Winnipeg	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	1/3/2023	1/3/2028
528	Johnson Space Center (JSC)	Canada - University of Winnipeg	Agreement between the National Aeronautics and Space Administration and University of Ottawa for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	10/30/2023	10/30/2028
529	Johnson Space Center (JSC)	Canada - University of Winnipeg	Agreement between the National Aeronautics and Space Administration and The University of Winnipeg for the Loan of Lunar Samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Apollo Sample Curator at JSC and approved by the Apollo Sample Curator.	12/16/2024	10/31/2026

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
530	Johnson Space Center (JSC)	Canada - Western University	Agreement between the National Aeronautics and Space Administration and Western University for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	5/22/2024	5/22/2029
531	Johnson Space Center (JSC)	Canadian Space Agency (CSA)	Memorandum of Understanding (MOU) Between NASA and the Canadian Space Agency (CSA) Concerning Cooperation on the Civil International Space Station (ISS)	Implementing Arrangement/Agreement (IA)	Specific objectives of this MOU are: to provide the basis for cooperation between NASA and CSA in the detailed design, development, operation and utilization of the permanently inhabited civil international Space Station for peaceful purposes, in accordance with international law. Exchange of Dip Notes Required for entry into force. Dip Notes not available.	1/29/1998	12/31/2030
532	Johnson Space Center (JSC)	Canadian Space Agency (CSA)	An Implementing Arrangement (IA) Between NASA and The Canadian Space Agency (CSA) Regarding a Barter of International Space Station (ISS) Supporting Services and Utilization	Implementing Arrangement/Agreement (IA)	This is an Implementing Arrangement (IA) that is entered into pursuant to the Agreement among the Government of USA, Governments of Member States of the European Space Agency, the Government of Japan, Government of Canada Concerning Cooperation on the Civil ISS (the IGA) and the MOU between NASA/CSA Concerning Cooperation on the Civil International Space Station. This Arrangement details the understanding between NASA/CSA regarding a barter of ISS supporting services and utilization and regarding a Special Purpose Dexterous Manipulator (SPDM) and Other Goods and Services Towards Fulfillment of Its Common System Operations Responsibilities Within the Context of the ISS Program and more specifically the Optional Additional Offset detailed therein, this Arrangement provides for the exercise of the Optional/Additional Offset by Canada.	8/16/2001	12/31/2030
533	Johnson Space Center (JSC)	Canadian Space Agency (CSA)	CSA-NASA CIPHER Agreement	Implementing Arrangement/Agreement (IA)	This agreement documents the contributions from the CSA to the NASA sponsored Complement of Integrated Protocols for Human Exploration Research	2/14/2023	12/31/2030
534	Johnson Space Center (JSC)	Canadian Space Agency (CSA),European Space Agency,National Space Development Agency of Japan (NASDA)	Letter Agreement: NASA-sponsored Complement of Integrated Protocols for Human Exploration Research "CIPHER"	Project-Specific Agreement (PSA)	Agreement between NASA and ESA regarding the support of the ESA participation and integration in the Complement of Integrated Protocols for Human Exploration Research (CIPHER) Complement. ESA will provide hardware and NASA will provide orbit crew time for CIPHER studies.	1/13/2022	12/31/2030
535	Johnson Space Center (JSC)	ESA - European Space Agency	Implementing Arrangement (IA) Between NASA and the European Space Agency's (ESA) Concerning Provision of a Cupola in Exchange for NASA's Provision of Shuttle Launch and Return Services for Five External European Payloads	Implementing Arrangement/Agreement (IA)	Implementing Arrangement (IA) Pursuant to Articles 1.1 and 16.4 of the NASA/ESA ISS MOU, this Arrangement provides for the provision by ESA of a Cupola and additional goods and services to NASA for the ISS Program in exchange for NASA's provision of Space Shuttle launch and return transportation services for five ESA external ISS payloads.	8/7/2000	12/31/2030
536	Johnson Space Center (JSC)	ESA - European Space Agency	Agreement between NASA and The European Space Agency for the Loan of Lunar samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Lunar Sample Curator at JSC and approved by the Sample Curator.	7/12/2021	1/31/2026

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
537	Johnson Space Center (JSC)	ESA - European Space Agency	Implementing Arrangement between the National Aeronautics and Space Administration of the United States of America and the European Space Agency Concerning the Provision by ESA Of Service Modules for NASA's Orion Crew Vehicle as a Contribution to the Gateway Partnership	Implementing Arrangement/Agreement (IA)	This IA documents the provision by ESA to NASA of ESM 4 and 5, as well as a study for future ESMs, as part of ESA's Gateway partnership contribution.	5/3/2022	12/31/2035
538	Johnson Space Center (JSC)	ESA - European Space Agency	Agreement between the National Aeronautics and Space Administration and European Space Agency - European Space Research and Technology Centre for the Loan of Lunar Samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Apollo Sample Curator at JSC and approved by the Apollo Sample Curator.	12/16/2024	10/31/2025
539	Johnson Space Center (JSC)	European Space Agency	European Space Agency (ESA) contributions to the NASA-sponsored Complement of Integrated Protocols for Human Exploration Research (CIPHER)	Implementing Arrangement/Agreement (IA)	The annex details NASA and ESA's participation and integration in CIPHER, including collaboration on experiments such as routine ultrasound, vascular calcium, spatial cognition, space phys mx CEVIS, and iSafe Vision and Vascular Tests.	1/13/2022	12/31/2030
540	Johnson Space Center (JSC)	European Space Agency	Cooperation on Science and Sample Management of The Mars Sample Return Campaign, MSR	Project-Specific Agreement (PSA)	NASA-ESA agree to Mars sample science principals	11/7/2022	9/30/2036
541	Johnson Space Center (JSC)	European Space Agency	HERA - Enivhab Letter of Agreement	Implementing Arrangement/Agreement (IA)	This agreement will enable an analog experiment exchange between the ESA :envihab testing facility in Cologne, Germany and the NASA ground analog, known as HERA, at JSC.	12/13/2022	12/31/2030
542	Johnson Space Center (JSC)	European Space Agency (ESA)	NASA-ESA Cooperative Agreement regarding ESA Active Dosimeters (EAD) on Artemis I	Project-Specific Agreement (PSA)	Covers activities regarding the ESA Active Dosimeters (EAD) flying as a secondary payload in the Orion spacecraft during the Artemis I mission.	9/20/2019	9/20/2027
543	Johnson Space Center (JSC)	European Space Agency (ESA)	Memorandum of Understanding between the National Aeronautics and Space Administration of the United States of America and the European Space Agency Concerning Cooperation on the Civil Lunar Gateway	Project-Specific Agreement (PSA)	MOU to realize Gateway cooperation under the ISS IGA.	10/27/2020	12/31/2035
544	Johnson Space Center (JSC)	France - CEREGE	Agreement between the National Aeronautics and Space Administration and CEREGE for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	6/21/2024	6/21/2029
545	Johnson Space Center (JSC)	France - CEREGE CNRS Aix-Marseille University	Agreement between NASA and the CEREGE CNRS Aix-Marseille University for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.	12/28/2020	12/28/2025

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
546	Johnson Space Center (JSC)	France - IMPMC-CNRS	Agreement between NASA and IMPMC- CNRS-Paris for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	4/8/2022	4/8/2027
547	Johnson Space Center (JSC)	France - IMPMC-NMHN (Mineralogie)	Agreement between NASA and IMPMC/Museum Natl d'Histoire Naturell for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.	1/25/2021	1/25/2026
548	Johnson Space Center (JSC)	France - Institut de Physique du Globe de Paris	Agreement between NASA and the Institute de Physique du Globe de Paris for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	3/16/2023	3/16/2028
549	Johnson Space Center (JSC)	France - Institut de Physique du Globe de Paris	Agreement between the National Aeronautics and Space Administration and Institut de Physique du Globe du Paris for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	10/17/2023	10/17/2028
550	Johnson Space Center (JSC)	France - Institut de Planetologie et d'Astrophysique de Grenoble	Agreement between NASA and Institute for Planetary science and Astrophysics of Grenoble for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.	4/15/2021	4/15/2026
551	'	France - Institut de Planetologie et d'Astrophysique de Grenoble	Agreement between the National Aeronautics and Space Administration and Institut de Planetologie for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	4/4/2024	4/4/2029
552	Johnson Space Center (JSC)	France - Institut de Planetologie et d'Astrophysique de Grenoble	Agreement between the National Aeronautics and Space Administration and Insitut de Planetologie for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	4/17/2024	4/17/2029
553	Johnson Space Center (JSC)	France - Institut de Planetologie et d'Astrophysique de Grenoble, France - National Centre for Scientific Research (CNRS), France - Universite Joseph Fourier a Grenoble	Agreement between the National Aeronautics and Space Administration and CNRS/Universite Joseph Fourier/Insitut de Planetologie for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	4/18/2024	4/11/2029
554	Johnson Space Center (JSC)	France - Institut des Sciences de la Terre d'Orleans	Agreement between the National Aeronautics and Space Administration and Institut des Sciences de la Terre d'Orleans for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	10/17/2023	10/17/2028

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
555	Johnson Space	France - Institut des Sciences de la Terre d'Orleans	Agreement between the National Aeronautics and Space Administration and Institut des Sciences de la Terre d'Orleans for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	10/17/2023	10/17/2028
556		France - Museum National d'Histoire Naturelle	Agreement between the National Aeronautics and Space Administration and Museum National d'Histoire Naturelle for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	12/1/2023	12/1/2028
557		France - National Centre for Space Studies (CNES)	Implementing Arrangement between NASA and CNES for Cooperation on the Complement of Integrated Protocols for Human Exploration Research (CIPHER)	Implementing Arrangement/Agreement (IA)	IA Under France Umbrella Agreement; Cooperation on the NASA Sponsored Complement of Integrated Protocols for Human Exploration Research (CIPHER)	9/1/2023	12/30/2030
558		France - Observatoire Midi- Pyrenees	Agreement between NASA and Observatoire Midi-Pyrenees for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.	2/22/2021	2/22/2026
559		France - Universite de Clermont-Ferrand	Agreement between NASA and Universite de Clermont-Ferrand for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Universite de Clermont-Ferrand proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.	5/11/2021	5/11/2026
560	Johnson Space Center (JSC)	France - University of Lille 1	Agreement between the National Aeronautics and Space Administration and Universite de Lille for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	1/16/2024	1/16/2029
561		German Aerospace Center (DLR)	Implementing Arrangement (IA) Between NASA and the German Aerospace Center (DLR) Acting for DLR Institute of Aerospace Medicine for Cooperation on Investigations Utilizing the German Aerospace Center's :envihab Facility	Implementing Arrangement/Agreement (IA)	Implementing Arrangement (IA) Agreement between NASA and DLR to conduct collaborative human research investigations and cooperation utilizing DLR's envihab facility.	4/11/2018	12/31/2025

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
562		German Aerospace Center (DLR)	Implementing Arrangement (IA) Between NASA and the German Aerospace Center (DLR) for Cooperation on the Matroshka Astrorad Radiation Experiment (MARE) On NASA's Exploration Mission-1	Implementing Arrangement/Agreement (IA)	Under the Implementing Arrangement (IA), on the first flight of Exploration Mission-1 ("EM-1,") NASA will demonstrate its new Space Launch System rocket's heavy-lift capability and send an un-crewed Orion spacecraft into deep space. The agency will also take advantage of additional available mass and space to provide the rare opportunity to fly secondary payloads in the Orion Crew Module (CM) to conduct experiments beyond low-Earth orbit. MARE is one of the secondary payloads that will be installed in the Orion CM that will launch on EM-1. MARE will provide tissue equivalent assessment of the radiation environment that future crews may be exposed to and demonstrate radiation shielding effectiveness of a crew Radiation Shield Vest (RSV). The experiment includes two (2) tissue equivalent torsos, one RSV, active dosimeters, and passive dosimeters. MARE is an experiment co-managed by DLR and the Israel Space Agency (ISA) (hereinafter referred to as "the experiment team"), whose roles are detailed under a separate DLR ISA Memorandum of Understanding. NASA will participate in the MARE payload as a co-Principal Investigator (PI).	6/19/2018	6/19/2026
563	Johnson Space Center (JSC)	German Aerospace Center (DLR)	Implementing Arrangement between NASA and the German Aerospace Center for Cooperation on the Complement of Integrated Protocols for Human Exploration Research (CIPHER)	Project-Specific Agreement (PSA)	This IA represents DLR's contributions to the CIPHER study which falls under the umbrella agreement titled "NASA-Sponsored Complement of Integrated Protocols for Human Exploration." The IA indicates two NASA-DLR collaborations, including the spatial cognition and blood and urine sample sharing experiments.	6/22/2022	12/13/2030
564	'	Germany - Freie Universitat Berlin	Agreement between the National Aeronautics and Space Administration and Freie Universitaet Berlin for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	1/16/2024	1/16/2029
565		Germany - Friedrick- Schiller-University Jena	Agreement between NASA and Friedrich- Schiller-University Jena for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.	3/26/2021	3/26/2026
566	Johnson Space Center (JSC)	Germany - Goethe University Frankfurt	Agreement between the National Aeronautics and Space Administration and Goethe University Frankfurt for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	10/17/2023	10/17/2028
567		Germany - Goethe University Frankfurt	Agreement between the National Aeronautics and Space Administration and Goethe-Universität Frankfurt for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	3/19/2024	3/19/2029
568	Johnson Space	Germany - HelmholtzZentrum Muenchen	Agreement between the National Aeronautics and Space Administration and Helmholtz Zentrum Muenchen Deutsches ForschungsZentrum fuer Gesundheit und Umwelt (GmbH) for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	11/29/2023	11/29/2028

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
569	Johnson Space Center (JSC)	Germany - Institut fur Planetologie	Agreement between NASA and the Institut fuer Planetologie for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	4/11/2023	4/11/2028
570	Johnson Space Center (JSC)	Germany - Max Planck Institute for Chemistry	Agreement between the National Aeronautics and Space Administration and Max Planck Institute for Chemistry for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	4/4/2024	4/4/2029
571	Johnson Space Center (JSC)	Germany - Max Planck Institute for Solar System Research (MPS)	Agreement between the National Aeronautics and Space Administration and Max Planck Institute for Solar System Research for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	5/15/2024	5/15/2029
572	Johnson Space Center (JSC)	Germany - Max Planck Institute for Solar System Research (MPS)	Agreement between the National Aeronautics and Space Administration and Max Planck Institute for Solar System Research for the Loan of Lunar Samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Apollo Sample Curator at JSC and approved by the Apollo Sample Curator.	12/16/2024	10/31/2027
573	Johnson Space Center (JSC)	Germany - Museum fur Naturkunde, Berlin	Agreement between NASA and Museum fur Naturkunde Berlin for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.	4/19/2021	4/19/2026
574	Johnson Space Center (JSC)	Germany - RiesKraterMuseum Noerdlingen	Agreement between NASA and the RiesKraterMuseum Noerdlingen for the Loan of Lunar samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Lunar Sample Curator at JSC and approved by the Sample Curator.	1/28/2021	1/28/2026
575		Germany - Stiftung Haus der Geschichte der Bundesrepublik Deutschland	Agreement between NASA and Stiftung Haus der Geschichte der Bundesrepublik Deutschland for the Loan of Lunar samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Lunar Sample Curator at JSC and approved by the Sample Curator.	1/28/2021	1/28/2026
576	Johnson Space Center (JSC)	Germany - Universitat zu Koln	Agreement between NASA and the University of Cologne (Universität zu Köln) for the Loan of Lunar Samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the lunar samples to undertake scientific investigations.	4/18/2022	10/31/2026
577	Johnson Space Center (JSC)	Germany - Universitat zu Koln	Agreement between the National Aeronautics and Space Administration and the Universität zu Köln for the Loan of Lunar Samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Apollo Sample Curator at JSC and approved by the Apollo Sample Curator.	12/16/2024	10/31/2026
578	Johnson Space Center (JSC)	Germany - Universitat zu Koln	Agreement between the National Aeronautics and Space Administration and the Universität zu Köln for the Loan of Lunar Samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Apollo Sample Curator at JSC and approved by the Apollo Sample Curator.	12/16/2024	10/31/2026

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
579		Germany - University of Cologne	Agreement between NASA and the University of Cologne for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	12/10/2020	12/10/2025
580		Germany - University of Cologne	Agreement between NASA and the University of Cologne (Universität zu Köln) for the Loan of Lunar Samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the lunar samples to undertake scientific investigations.	4/18/2022	10/31/2026
581		Germany - University of Goettingen	Agreement between NASA and the University of Goettingen for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	3/16/2023	3/16/2028
582	Johnson Space Center (JSC)	Government of Canada	Memorandum of Understanding between the Government of the United States of America and the Government of Canada Concerning Cooperation on the Civil Lunar Gateway	Project-Specific Agreement (PSA)	MOU to realize Gateway cooperation under the ISS IGA.	11/15/2020	12/31/2035
583	Johnson Space Center (JSC)	Government of Japan	Memorandum of Understanding between the National Aeronautics and Space Administration of the United States of America and the Government of Japan Concerning Cooperation on the Civil Lunar Gateway	Project-Specific Agreement (PSA)	MOU to realize Gateway cooperation under the ISS IGA	12/31/2020	12/31/2035
584		Greece - Agricultural University of Athens	Agreement between the National Aeronautics and Space Administration and Agricultural University of Athens for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	11/29/2023	11/29/2028
585		Hungary - Hungarian Space Office (HSO)	Agreement between the National Aeronautics and Space Administration and Research Centre for Astronomy and Earth Sciences for the Loan of Lunar Samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Apollo Sample Curator at JSC and approved by the Apollo Sample Curator.	12/16/2024	10/31/2027
586		India - Physical Research Laboratory (PRL)	Agreement between NASA and The Physical Research Laboratory for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	11/12/2021	11/12/2026

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
587	Johnson Space Center (JSC)	Israel Space Agency (ISA)	Implementing Arrangement (IA) Between NASA and Israel Spacey Agency (ISA) for Cooperation on the Matryoshka AstroRad Radiation Experiment (MARE) on NASA's Exploration Mission-1	Implementing Arrangement/Agreement (IA)	Implementing Arrangement (IA): On its first flight (Exploration Mission-1 or 'EM-1'), NASA will demonstrate its new Space Launch System rocket's heavy-lift capability and send an un-crewed Orion spacecraft into deep space. The agency will also take advantage of additional available mass and space to provide the rare opportunity to fly secondary payloads in the Orion Crew Module (CM) to conduct experiments beyond low-Earth orbit. MARE is one of the secondary payloads that will be installed in the Orion CM that will launch on EM-1. MARE will provide tissue equivalent assessment of the radiation environment that future crews may be exposed to and demonstrate radiation shielding effectiveness of a crew Radiation Shield Vest (RSV). The experiment includes two (2) tissue equivalent torsos, one RSV, active dosimeters, and passive dosimeters. MARE is an experiment co-managed by the German Aerospace Center (DLR) and ISA (hereinafter referred to as 'the experiment team'), whose roles are detailed under a separate DLR-to-ISA MOU. NASA will participate in the MARE payload as a co-Principal Investigator (PI).	4/17/2018	4/17/2026
588	Johnson Space Center (JSC)	Italy - Instituto Nazionale di Astrofisica (INAF)	Agreement between the National Aeronautics and Space Administration and INAF Italy for the Loan of Cosmic Dust samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Cosmic Dust samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Cosmic Dust Sample Curator at JSC and approved by the Cosmic Dust Sample Curator.	6/14/2024	6/14/2029
589	Johnson Space Center (JSC)	Italy - Italian Space Agency (ASI)	Memorandum of Understanding (MOU) Between NASA and the Italian Space Agency (ASI) for the Design, Development, Operation and Utilization of Three Mini-Pressurized Logistics Modules for the International Space Station (ISS)	Project-Specific Agreement (PSA)	This Memorandum of Understanding (MOU) agreement supersedes agreement IT-0120 of 12/06/1991, substituting three Mini Pressurized Logistics Modules (MPLMs) as the components to be furnished by Italy for the two MPLMs and a Mini Laboratory called for in IT-0120. In exchange, NASA will launch the MPLMs on the Shuttle and provide ASI .85 per cent of pressurized user accommodations; .85 per cent of accommodations for external payloads, and .85 per cent of utilization resources, and launch ASI's utilization on the Shuttle. NASA will also provide ASI one ASI-provided ISS crew member for one on-orbit increment every five years, with a minimum of 3 crew opportunities. The effective duration of the agreement is through the end of the ISS Program; i.e., December 31, 2020. Dip Notes required to enter into force. Date of dip notes unknown.	10/9/1997	12/31/2030
590	Johnson Space Center (JSC)	Italy - Universita' degli Studi di Padova	Agreement between NASA and Universita' degli Studi di Padova for the Loan of Antarctic Meteorite Samples.	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	4/18/2022	4/18/2027
591	Johnson Space Center (JSC)	Italy - University of Basilicata	Aeronautics and Space Administration and Università di Bari, Department of Earth and Geoenvironmental Sciences for the Loan of Antarctic Meteorite	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	5/14/2024	5/14/2029
592	Johnson Space Center (JSC)	Italy - University of Firenze	Agreement between NASA and University of Firenze for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.	12/28/2020	12/28/2025
593	Johnson Space Center (JSC)	Japan - Earth-Life Science Institute (ELSI)	Agreement between NASA and Earth- Life Science Institute (ELSI), for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	2/2/2023	2/2/2028

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
594	Johnson Space Center (JSC)	Japan - Hiroshima University	Agreement between the National Aeronautics and Space Administration and Hiroshima University for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	11/14/2023	11/14/2028
595	Johnson Space Center (JSC)	Japan - Ibaraki University	Agreement between the National Aeronautics and Space Administration and Ibaraki University for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	4/18/2024	4/18/2029
596	Center (JSC)	Japan - Institute of Space and Astronautical Science (ISAS),Japan - Japan Aerospace Exploration Agency (JAXA)	Agreement between NASA and ISAS/JAXA for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.	1/11/2021	1/11/2026
597	Johnson Space Center (JSC)	Japan - Japan Aerospace Exploration Agency (JAXA)	Amendment 1: Reimbursable Space Act Agreement Between NASA and the Japan Aerospace Exploration Agency (JAXA) on JAXA's Use of NASA's Common Spares Pool (CSP) to Support the Japanese Experiment Module (JEM)	Implementing Arrangement/Agreement (IA)	Amendment 1 to replace Articles II-VII in their entirety, which updated language to reflect the retirement of the Shuttle and to provide for the Spares Analysis and JAXA payment for estimated CSP requirements through 2020. The Basic Agreement between NASA and JAXA, which enabled JAXA to use the Common Spares Pool, on a reimbursable basis to NASA, for spares/repair parts to maintain the ISS-JEM. The Basics Agreement also supersedes and terminates the previous CSP-JEM Agreement between NASA and JAXA.	3/13/2021	12/31/2030
598	Johnson Space Center (JSC)	Japan - Japan Aerospace Exploration Agency (JAXA)	Agreement between NASA and Japan Aerospace Exploration Agency for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.	4/19/2021	4/19/2026
599	Johnson Space Center (JSC)	Japan - Japan Aerospace Exploration Agency (JAXA)	Letter of Agreement between the National Aeronautics and Space Administration (NASA) and the Japan Aerospace Exploration Agency (JAXA) on the CALorimetric Electron Telescope (CALET) mission	Project-Specific Agreement (PSA)	Extension to LOA governing cooperation between NASA and JAXA to continue science operations for CALET instrument on board the ISS.	10/4/2024	11/1/2034
600	Johnson Space Center (JSC)	Japan - Japan Aerospace Exploration Agency (JAXA)	Agreement between the National Aeronautics and Space Administration and The Japan Aerospace Exploration Agency for the Loan of Lunar Samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Apollo Sample Curator at JSC and approved by the Apollo Sample Curator.	12/16/2024	10/31/2028
601	Johnson Space Center (JSC)	Japan - Japan Space Forum	Agreement between NASA and the Japan Space Forum for the Loan of Lunar samples	Project-Specific Agreement (PSA)	Principal Investigator use the Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Lunar Sample Curator at JSC and approved by the Sample Curator.	2/26/2021	2/26/2026
602	Johnson Space Center (JSC)	Japan - National Institute of Polar Research (NIPR)	Agreement between the National Aeronautics and Space Administration and National Institute of Polar Research for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	5/8/2024	5/8/2029

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
603	Johnson Space Center (JSC)	Japan - Okayama University	Agreement between NASA and Okayama University for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.	4/15/2021	4/15/2026
604	Johnson Space Center (JSC)	Japan - Okayama University	Agreement between NASA and Okayama University for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	11/12/2021	11/12/2026
605	Johnson Space Center (JSC)	Japan - Osaka University	Agreement between NASA and Osaka University for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.	1/11/2021	1/11/2026
606	Johnson Space Center (JSC)	Japan - Tohoku University	Agreement between NASA and Tohoku University for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	6/21/2023	6/21/2028
607	Johnson Space Center (JSC)	Japan - Tohoku University	Agreement between NASA and Tohoku University for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	7/11/2023	7/11/2028
608	Johnson Space Center (JSC)	Ministry for Education, Culture, Sports, Science & Technology (MEXT)	Implementing Arrangement between the National Aeronautics and Space Administration of the United States of America and the Ministry of Education, Culture, Sports, Science, and Technology of Japan Concerning Cooperation on the Civil Lunar Gateway Related to a Crew Opportunity, Habitation Capability Infrastructure Functions and Logistics Resupply	Implementing Arrangement/Agreement (IA)	MEXT's provision of the Habitation Capability Infrastructure Functions (I-Hab and Halo components) and Logistics Resupply (one HTV-XG mission to Gateway). NASA's provision of a crew opportunity to the Gateway. This IA is under the NASA-Japan Gateway MOU.	12/5/2022	12/31/2100
609	Johnson Space Center (JSC)	Mohammed Bin Rashid Space Centre (MBRSC)	REIMBURSABLE AGREEMENT BETWEEN THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION OF THE UNITED STATES OF AMERICA AND MOHAMMED BIN RASHID SPACE CENTRE FOR ASTRONAUT TRAINING	Project-Specific Agreement (PSA)	This reimbursable agreement is for the purpose of setting the terms and conditions with regard to training United Arab Emirates (UAE) astronauts for flight to the International Space Station (ISS). Two UAE astronauts will begin training for operational familiarity, flight qualification, and utilization activities at the NASA Johnson Space Center (JSC) in 2020, and two more will begin when the second group of two UAE astronauts will join the upcoming NASA Astronaut Candidate class.	9/8/2020	9/8/2025
610	Johnson Space Center (JSC)	Multilateral - European Space Agency (ESA)	Implementing Arrangement between the European Space Agency and the National Aeronautics and Space Administration on the United States of America Concerning an Exchange of Goods and Services in Support of the International Space Station including the Offset of ESA's Responsibility for Common System Operations Costs for 2021-2024	Implementing Arrangement/Agreement (IA)	ESA's fulfillment of its CSOC obligations from January 1, 2021 to December 31, 2024 and an additional exchange of goods and resources.	2/10/2023	12/31/2025

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
611	Johnson Space Center (JSC)	Netherlands - Noordwijk Space Expo	Agreement between NASA and Noordwijk Space Expo for the Loan of Lunar samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Lunar Sample Curator at JSC and approved by the Sample Curator.	2/26/2021	2/26/2026
612	Johnson Space Center (JSC)	Netherlands - Utrecht University	Agreement between NASA and Utrecht University for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.	4/22/2021	4/22/2026
613	Johnson Space Center (JSC)	Phillipines - MuseoPambata Foundation Inc	Agreement between NASA and the MuseoPambata Foundation, Inc.for the Loan of Lunar samples	Project-Specific Agreement (PSA)	Principal Investigator to use the Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Lunar Sample Curator at JSC and approved by the Sample Curator.	1/27/2021	1/27/2026
614	Johnson Space Center (JSC)	Poland - Institute of Geological Sciences, Polish Academy of Sciences	Agreement between the National Aeronautics and Space Administration and Institute of Geological Sciences Wroclaw Frankfurt for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	10/30/2023	10/30/2028
615	Johnson Space Center (JSC)	Poland - Polish Academy of Sciences (PAS)	Agreement between NASA and the Polish Academy of Sciences for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.	5/5/2021	5/5/2026
616	Johnson Space Center (JSC)	Russia - Russian Federal Space Agency (Roscosmos)	Addendum 2: Implementing Arrangement entitled "Protocol Including Terms, Conditions and Assumptions, Summary Balance of Contribution and Obligations to International Space Station (ISS) and Resulting Rights of NASA and RSA to ISS Utilization Accommodations and Resources, and Flight Opportunities" (Balance Agreement) Between NASA and the Federal Space Agency of the Russian Federation	Implementing Arrangement/Agreement (IA)	Addendum 2: Also referred to as the "Second Addendum to the Balance Agreement," this Addendum adjusts the balance of the contributions of the Parties previously established in the original Balance Agreement and Addendum, due to changes in the timeline, programmatic changes, et. al. It effects a partial rebalance of the NASA and Roscosmos efforts regarding crew size and composition, science power platform and its arrays, upmass, habitation, electrical power, stowage, communication services, propellant, waste removal services, water, and liaison office and travel support through December 31, 2011. The Agreement will remain in force until such time as the MOU ceases to be in force.	7/1/2006	12/31/2028
617	Johnson Space Center (JSC)	Russia - Russian Space Agency (RSA)	Memorandum of Understanding (MOU) Between NASA and the Russian Space Agency Concerning Cooperation on the Civil International Space Station	Implementing Arrangement/Agreement (IA)	The specific objectives of this Memorandum of Understanding (MOU) are: to provide the basis for cooperation between NASA and RSA in the detailed design, development, operation and utilization of the permanently inhabited civil international Space Station for peaceful purposes, in accordance with international law; to provide a basis for cooperation that maximizes the total capability of the Space Station to accommodate user needs and that ensures that the Space Station is operated in a manner that is safe, efficient and effective for both Space Station users and Space Station operators. Requires Exchange of Diplomatic Notes to enter into force. Implementing Arrangement under the IGA for ISS. Russia sent dip note for this Agreement to enter into force dated March 27, 1998. Russian Dip Note is attached. U.S. Dip Note responding to Russian Dip Note is NOT attached.	1/29/1998	12/31/2028
618	Johnson Space Center (JSC)	Spain - The Visitor Center at the Madrid Deep Space Communications Complex	Agreement between NASA and The Visitor Center at the Madrid Deep Space Communications Complex for the Loan of Lunar Samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the lunar Sample Curator at JSC and approved by the Sample Curator	2/26/2021	7/31/2026
619	Johnson Space Center (JSC)	Sweden - Lund University	Agreement between the National Aeronautics and Space Administration and Lund University for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	1/26/2024	1/26/2029

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
620	Johnson Space Center (JSC)	Sweden - Lund University	Agreement between the National Aeronautics and Space Administration and Lund University for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal investigator proposes to use the Antarctic intereorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample	4/24/2024	4/24/2029
621	Johnson Space Center (JSC)	Switzerland - ETH Zurich	Agreement between NASA and ETH Zurich for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	ETH Zurich proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.	2/4/2021	2/4/2026
622	Johnson Space Center (JSC)	Switzerland - ETH Zurich	Agreement between NASA and ETH Zurich for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	ETH Zurich proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	1/13/2022	1/13/2027
623	Johnson Space Center (JSC)	Switzerland - ETH Zurich	Agreement between the National Aeronautics and Space Administration and ETH Zurich, Institute for Geochemistry and Petrology for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	ETH Zurich proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	5/6/2024	5/6/2029
624	Johnson Space Center (JSC)	Switzerland - ETH Zurich	Agreement between the National Aeronautics and Space Administration and ETH Zurich for the Loan of Cosmic Dust samples	Project-Specific Agreement (PSA)	ETH Zurich proposes to use the Cosmic Dust samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Cosmic Dust Sample Curator at JSC and approved by the Cosmic Dust Sample Curator.	6/11/2024	6/22/2029
625	Johnson Space Center (JSC)	Switzerland - ETH Zurich	Agreement between the National Aeronautics and Space Administration and Eidgenössische Technische Hochschule Zürich for the Loan of Lunar	Project-Specific Agreement (PSA)	Switzerland - ETH Zurich proposes to use Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Apollo Sample Curator at JSC and approved by the Apollo Sample Curator.	12/16/2024	10/31/2027
626	Johnson Space Center (JSC)	Switzerland - University of Bern	Agreement between NASA and the University of Bern for the Loan of Lunar samples	Project-Specific Agreement (PSA)	investigations. These investigations are described in one or more sample requests submitted by the PI to the Lunar Sample Curator at JSC and	9/23/2021	9/23/2026
627	Johnson Space Center (JSC)	Switzerland - University of Bern	Agreement between NASA and University of Bern, for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Cample	2/2/2023	2/2/2028
628	Johnson Space Center (JSC)	The University Court of The University of Edinburgh	Reimbursable Space Act Umbrella Agreement Between NASA and The University of Edinburgh Regarding Anthropomorphic Robotic Systems	Umbrella/Framework Agreement (UM/FW)	JSC is leading an agency-wide effort to advance the state of the art of autonomous robot manipulation and mobility operations. JSC's goal is to develop anthropomorphic robotic "caretaker" systems for deep space missions which can provide autonomous tending of spacecraft in absence of crew, reduction of crew time for spacecraft maintenance chores, and response capability for spaceflight emergencies. These efforts led to anthropomorphic robotic demonstration systems culminating with the R5 system. Meanwhile, the UoE which is engaged in research and training related to the interactions between robots and their environments, is leading a national UK initiative on robotics research, and has expressed an interest in advancing their efforts through the reimbursable use of an advanced robotic test bed based on the R5 technology. Thus, this Umbrella Agreement shall establish the parameters for the support NASA will provide to the UoE related to the advancement and loan of NASA robotic technologies. Annex 1's purpose is for NASA and the UoE to undertake design, delivery, and testing of anthropomorphic robotic systems that address key challenges for managing interactions between robots and their environments, between multiple autonomous systems, and between robots and humans. NASA will further develop the NASA R5B test bed to meet the UoE's requirements.	2/26/2015	2/26/2026

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
629	Johnson Space Center (JSC)	Turkey - Ege University	Agreement between NASA and Ege University for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Ege University proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.	1/11/2021	1/11/2026
630	Johnson Space Center (JSC)	United Arab Emirates - Mohammed Bin Rashid Space Centre (MBRSC)	Implementing Arrangement between the National Aeronautics and Space Administration of the United States of America and the Mohammed Bin Rashid Space Center of the United Arab Emirates concerning cooperation on the Civil Lunar Gateway	Implementing Arrangement/Agreement (IA)	The Mohammed Bin Rashid Space Center's provision of an Airlock Module for the Lunar Gateway. NASA's provision of technical information and support as well as a flight opportunity to the Lunar Gateway.	1/5/2024	12/31/2100
631	Johnson Space Center (JSC)	United Kingdom - Imperial College London	Agreement between NASA and Imperial College, for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample	2/2/2023	2/2/2028
632	Johnson Space Center (JSC)	United Kingdom - Imperial College London	Agreement between the National Aeronautics and Space Administration and Imperial College for the Loan of Lunar Samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Apollo Sample Curator at JSC and approved by the Apollo Sample Curator.	12/16/2024	10/31/2027
633	Johnson Space Center (JSC)	United Kingdom - Natural History Museum	Agreement between NASA and The Natural History Museum, London for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.	4/8/2021	4/8/2026
634	Johnson Space Center (JSC)	United Kingdom - Natural History Museum	Agreement between NASA and Natural History Museum, London, for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample	1/3/2023	1/3/2028
635	Johnson Space Center (JSC)	United Kingdom - Natural History Museum	Agreement between the National Aeronautics and Space Administration and Natural History Museum, London for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample	1/17/2024	1/10/2029
636	Johnson Space Center (JSC)	United Kingdom - Natural History Museum	Agreement between the National Aeronautics and Space Administration and Natural History Museum, London for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Prificipal investigator proposes to use the Amarctic intereorne samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample	2/22/2024	2/22/2029
637	Johnson Space Center (JSC)	United Kingdom - Natural History Museum	Agreement between the National Aeronautics and Space Administration and Natural History Museum, London for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Prificipal investigator proposes to use the Amarctic intereorne samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample	5/15/2024	5/15/2029
638	Johnson Space Center (JSC)	United Kingdom - Open University	Agreement between the National Aeronautics and Space Administration and The Open University for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Prificipal investigator proposes to use the Amarctic intereorne samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample	11/29/2023	11/29/2028
639	Johnson Space Center (JSC)	United Kingdom - Oxford University	Agreement between the National Aeronautics and Space Administration and University of Oxford for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Prificipal investigator proposes to use the Amarctic intereorne samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample	5/28/2024	5/28/2029
640	Johnson Space Center (JSC)	United Kingdom - Royal Holloway and Bedford New College	Agreement between NASA and the Royal Holloway and Bedford New College for the Loan of Cosmic Dust samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the cosmic dust samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the cosmic dust Sample Curator at JSC and approved by the Sample Curator.	7/22/2020	7/22/2025
641	Johnson Space Center (JSC)	United Kingdom - Royal Holloway and Bedford New College	Agreement between NASA and the Royal Holloway and Bedford New College for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Sample Curator.	5/20/2021	5/20/2026

Row No.	Responsible NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature Date)	Expiration Date
642	Jonnson Space Center (JSC)	United Kingdom - Scottish Universities Environmental Research Centre	Agreement between the National Aeronautics and Space Administration and Scottish Universities Environmental Research Centre for the Loan of Antarctic Meteorite samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Antarctic Meteorite samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample Curator.	2/2/2024	2/2/2029
643	Center (JSC)	United Kingdom - The Board of Trustees of the Science Museum	Agreement between NASA and The Board of Trustees of the Science Museum for the Loan of Lunar samples	Project-Specific Agreement (PSA)	Principal Investigator proposes to use the Lunar samples to undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Lunar Sample Curator at JSC and approved by the Sample Curator.	7/12/2021	7/31/2026
644	'	United Kingdom - The Open University	Agreement between NASA and The Open University for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	undertake scientific investigations. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator at JSC and approved by the Antarctic Meteorite Sample	1/25/2022	1/25/2027