

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
1	Kennedy Space Center (KSC)	Government of Spain	Agreement on Space Cooperation Between the United States of America and the Kingdom of Spain	Umbrella/Framework Agreement (UM/FW)	Authorization for, in case of an emergency, manned space vehicles of the United States to overfly, enter, and depart Spanish air space and use the runways, taxiways, and other installations at the Moron de la Frontera, Rota, and Zaragoza bases; also, agreement to negotiate agreements in promising areas for joint efforts to strengthen cooperation in space science and technology. Dip notes entering the agreement into force were exchange on Sept 3, 1991, and May 12, 1994. The science and technology portion of this agreement was implemented by agreement SP0027 of 12/02/1991 with INTA and agreement SP0028 of 07/03/1992 with CDTI.	11-Jul-91	31-Dec-00
2	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.	2-Dec-91	31-Dec-00
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).	3-Jul-92	31-Dec-00
4	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.	11-Sep-92	31-Dec-20
5	Goddard Space Flight Center (GSFC)	United Kingdom Space Agency (UKSA)	Aqua/Terra/Earth Observing System (EOS AM-1 and PM-1): Moderate Resolution Imaging Spectrometer (MODIS)	Project-Specific Agreement (PSA)	Participation by Dr. Jan-Peter Muller of University College-London in the Instrument Team for MODIS, a facility instrument designed to measure both biological and physical processes on a global basis. Missing the UK letter.	11-Sep-92	31-Dec-20
6	Jet Propulsion Laboratory (JPL)	United Kingdom Space Agency (UKSA)	Aqua/Earth Observing System (EOS PM-1): AIRS/AMSU/MHS	Project-Specific Agreement (PSA)	Participation by Dr. Rolando Rizzi of the European Centre for Medium Range Weather Forecasting on the Instrument Team for the Atmospheric Infrared Sounder/Advanced Microwave Sounding Unit-A/Microwave Humidity Sounder(AIRS/AMSU/MHS), a facility instrument of NASA's EOS. No UK letter.	11-Sep-92	31-Dec-20
7	Jet Propulsion Laboratory (JPL)	National Centre for Space Studies (CNES)	Instrument Team for Atmospheric Infrared Sounder (AIRS)/Advanced Microwave Sounding Unit-A (AMSU)/Microwave Humidity Sounder (MHS) Instruments of Earth Observing System (EOS PM-1)/Aqua	Project-Specific Agreement (PSA)	Service by Dr. Alain Chedin of Ecole Polytechnique on the Instrument Team for the Atmospheric Infrared Sounder (AIRS), Advanced Microwave Sounding Unit-A (AMSU), and Microwave Humidity Sounder (MHS) instruments of the EOS.	16-Feb-93	31-Dec-20

Active International Agreements by Signature Date (as of June 30, 2020)

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8	Goddard Space Flight Center (GSFC)	National Centre for Space Studies (CNES)	Instrument Team for CERES Instrument of Earth Observing System (EOS AM-1 and PM-1)/Aqua/Terra	Project-Specific Agreement (PSA)	Service by Dr. Robert S. Kandel of Ecole Polytechnique on the Instrument Team for the Clouds and Earth's Radiant Energy System (CERES) instrument of the EOS.	16-Feb-93	31-Dec-20
9	Goddard Space Flight Center (GSFC)	National Centre for Space Studies (CNES)	Instrument Team for MODIS Instrument of Earth Observing System (EOS AM-1 and PM-1)/Aqua/Terra	Project-Specific Agreement (PSA)	Service by Dr. Didier Tanre of the Laboratoire d'Optique Atmospherique on the Instrument Team for the Moderate-Resolution Imaging Spectrometer (MODIS) instrument of the EOS.	16-Feb-93	31-Dec-20
10	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.	28-Oct-94	31-Dec-23
11	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.	15-Nov-94	31-Dec-25
12	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.	16-Dec-94	31-Dec-00
13	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.	30-Jan-95	31-Dec-00
14	Headquarters (HQ)	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.	28-Feb-95	31-Dec-00
15	Headquarters (HQ)	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.	17-Mar-95	31-Dec-00
16	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.	20-Mar-95	31-Dec-00
17	Headquarters (HQ)	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.	23-Mar-95	31-Dec-00
18	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.	24-Mar-95	31-Dec-00
19	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.	24-Mar-95	31-Dec-00
20	Headquarters (HQ)	Ministry of Ecology and Biological Resources	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.	27-Mar-95	31-Dec-00

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
21	Headquarters (HQ)	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.	5-Apr-95	31-Dec-00
22	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.	12-Apr-95	31-Dec-00
23	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.	20-Apr-95	31-Dec-00
24	Headquarters (HQ)	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.	20-Apr-95	31-Dec-00
25	Headquarters (HQ)	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.	21-Apr-95	31-Dec-00
26	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.	21-Apr-95	31-Dec-00
27	Headquarters (HQ)	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.	22-Apr-95	31-Dec-00
28	Headquarters (HQ)	Government of 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.	24-Apr-95	31-Dec-00
29	Headquarters (HQ)	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.	28-Apr-95	31-Dec-00
30	Headquarters (HQ)	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-May-95	31-Dec-00
31	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.	22-May-95	31-Dec-00
32	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-Jun-95	31-Dec-00
33	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.	12-Jun-95	31-Dec-00

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
34	Headquarters (HQ)	Ministry of Culture and 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.	28-Jun-95	31-Dec-00
35	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.	27-Jul-95	31-Dec-00
36	Headquarters (HQ)	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.	23-Aug-95	31-Dec-00
37	Headquarters (HQ)	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.	27-Sep-95	31-Dec-00
38	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-Dec-95	31-Dec-00
39	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-Dec-95	31-Dec-00
40	Headquarters (HQ)	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.	27-Mar-96	31-Dec-00
41	Headquarters (HQ)	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.	22-Apr-96	31-Dec-00
42	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.	22-Apr-96	31-Dec-00
43	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.	1-May-96	31-Dec-00
44	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.	19-Jun-96	31-Dec-00
45	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.	12-Jul-96	31-Dec-00
46	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.	16-Jul-96	31-Dec-00
47	Headquarters (HQ)	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-Oct-96	31-Dec-00

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
48	Headquarters (HQ)	Republic of Marshall Islands Government	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.	17-Oct-96	31-Dec-00
49	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.	31-Oct-96	31-Dec-00
50	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.	15-Nov-96	31-Dec-00
51	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.	21-Jan-97	31-Dec-00
52	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.	28-Jan-97	31-Dec-00
53	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.	30-Jan-97	31-Dec-00
54	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.	17-Feb-97	31-Dec-00
55	Headquarters (HQ)	Ministry of Education and Economic Development of Bermuda	Global Learning and Observations to Benefit the Environment (GLOBE) with Ministry of Education and Culture of the United Republic of Tanzania	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-Apr-97	31-Dec-00
56	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-Apr-97	31-Dec-00
57	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.	7-Apr-97	31-Dec-00
58	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.	6-May-97	31-Dec-00
59	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.	29-May-97	31-Dec-00
60	Headquarters (HQ)	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.	30-May-97	31-Dec-00
61	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-Jun-97	31-Dec-00

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
62	Headquarters (HQ)	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.	11-Jun-97	31-Dec-00
63	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.	20-Jun-97	1-Jan-00
64	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.	18-Jul-97	31-Dec-00
65	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.	15-Sep-97	31-Dec-00
66	Headquarters (HQ)	Ministry of Basic 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.	8-Oct-97	31-Dec-00
67	Johnson Space Center (JSC)	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.	9-Oct-97	31-Dec-24
68	Headquarters (HQ)	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.	7-Nov-97	31-Dec-00
69	Headquarters (HQ)	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.	13-Nov-97	31-Dec-00
70	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.	18-Nov-97	31-Dec-00
71	Headquarters (HQ)	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.	19-Nov-97	31-Dec-00
72	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.	5-Dec-97	31-Dec-00
73	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.	23-Dec-97	31-Dec-00

Active International Agreements by Signature Date (as of June 30, 2020)

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74	Johnson Space Center (JSC)	Canadian Space Agency (CSA), Japan Aerospace Exploration Agency (JAXA), European Space Agency (ESA), Russian Federal Space Agency (Roskosmos)	Umbrella/Framework Agreement Among the Government of Canada, Governments of Member States of the European Space Agency (ESA), the Government of Japan, the Government of the Russian Federation, and the Government of the United States of America Concerning Cooperation on the Civil International Space Station	Umbrella/Framework Agreement (UM/FW)	Umbrella/Framework Agreement: Superseded the Intergovernmental Agreement, dated September 29, 1988, (MULT-0001-0). Agreement Among the member countries of European Space Agency (ESA), Canada, Japan, and Russia. The Space Station elements to be provided by each Partner are detailed in the Annex. Cooperation between NASA and each individual Partner will be specified in Memorandum of Understanding's (MOU's), pursuant to this Agreement, and cooperation between NASA and each individual Partner will be specified in Implementing Arrangements pursuant to the MOUs.	29-Jan-98	31-Dec-24
75	Johnson Space Center (JSC)	European Space Agency (ESA)	Memorandum of Understanding (MOU) Between NASA and the European Space Agency (ESA) Concerning Cooperation on the Civil International Space Station (ISS)	Implementing Arrangement/Agreement (IA)	The specific objectives of the MOU are: to provide the basis for cooperation between NASA and ESA in the detailed design, development, operation, and utilization of the permanently inhabited civil ISS 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. An exchange of letters from ESA to NASA, dated Nov. 27, 2007, with NASA's response to ESA, dated Nov. 27, 2007, entered the MOU into force.	29-Jan-98	31-Dec-24
76	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.	29-Jan-98	31-Dec-20
77	Johnson Space Center (JSC)	Russian Federal Space Agency (Roskosmos)	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.	29-Jan-98	31-Dec-24
78	Johnson Space Center (JSC)	Japan Aerospace Exploration Agency (JAXA), Ministry for Education, Culture, Sports, Science & Technology (MEXT)	Memorandum of Understanding (MOU) Between NASA and the Government of Japan Concerning Cooperation on the Civil International Space Station (ISS)	Implementing Arrangement/Agreement (IA)	This Memorandum of Understanding (MOU) is between NASA and Japan but the designated implementing agencies are NASA and the Science and Technology Agency of Japan (STA), pursuant to the IGA for the ISS of Jan. 29, 1998. The specific objectives of this MOU are: to provide the basis for cooperation between NASA and the GOJ in the detailed design, development, operation and utilization of the permanently inhabited civil International Space Station (ISS) 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. Diplomatic Notes, dated June 8, 2001, entered the MOU into effect and are attached to the PDF. The Signature Date is used for Entry into Force date due to time lag between Signature and Entry into Force Date.	24-Feb-98	31-Dec-20
79	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.	20-Mar-98	31-Dec-00

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
80	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.	16-Apr-98	31-Dec-00
81	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.	22-Apr-98	31-Dec-00
82	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-May-98	31-Dec-00
83	Headquarters (HQ)	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.	14-May-98	31-Dec-00
84	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.	24-Aug-98	31-Dec-00
85	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.	8-Sep-98	31-Dec-00
86	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.	28-Oct-98	31-Dec-00
87	Headquarters (HQ)	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.	6-Nov-98	31-Dec-00
88	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.	24-Nov-98	31-Dec-00
89	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.	26-Nov-98	31-Dec-00
90	Headquarters (HQ)	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.	18-Dec-98	31-Dec-00
91	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.	23-Dec-98	31-Dec-00
92	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.	14-Jan-99	31-Dec-00
93	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.	27-Jan-99	31-Dec-00

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
94	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.	10-Mar-99	31-Dec-00
95	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.	12-Apr-99	31-Dec-00
96	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.	27-May-99	31-Dec-00
97	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-Jun-99	31-Dec-00
98	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.	30-Sep-99	31-Dec-00
99	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.	20-Dec-99	31-Dec-00
100	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.	29-Feb-00	31-Dec-00
101	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-Mar-00	31-Dec-00
102	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-Mar-00	31-Dec-00
103	Ames Research Center (ARC)	National Institute for Aerospace Technology (INTA)	Astrobiology Research: Life in the Universe	Project-Specific Agreement (PSA)	This agreement makes the Centro de Astrobiologia an Associated Institute of the NASA Astrobiology Institute (NAI). NAI's goal is to conduct interdisciplinary research in astrobiology. There is no expiration of this cooperation.	5-May-00	31-Dec-00
104	Goddard Space Flight Center (GSFC)	National Commission on Space Activities (CONAE)	Amendment 1: Scientific Applications Satellite (SAC-C)	Project-Specific Agreement (PSA)	Amendment 1: Amendment to AR-0035-0, dated Oct. 28, 1996, to data analysis of 'AM Constellation Data,' comprised of SAC-C, Landsat 7, EO-1, and Terra.	14-Jun-00	31-Dec-20
105	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.	29-Jun-00	31-Dec-00
106	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.	12-Jul-00	31-Dec-00

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
107	Johnson Space Center (JSC)	European Space Agency (ESA)	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.	7-Aug-00	31-Dec-24
108	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.	9-Aug-00	31-Dec-00
109	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.	25-Aug-00	31-Dec-00
110	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.	27-Sep-00	31-Dec-00
111	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.	4-Oct-00	31-Dec-00
112	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.	27-Oct-00	31-Dec-00
113	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.	16-Jun-01	31-Dec-00
114	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.	16-Aug-01	31-Dec-20
115	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.	15-Jul-02	31-Dec-00
116	Headquarters (HQ)	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.	30-Sep-02	31-Dec-00
117	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.	3-Oct-02	31-Dec-00

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
118	Headquarters (HQ)	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.	17-Oct-02	31-Dec-00
119	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.	26-Mar-03	31-Dec-00
120	Headquarters (HQ)	The 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-Aug-03	31-Dec-00
121	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.	21-Aug-03	31-Dec-00
122	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)	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-Dec-03	31-Dec-00
123	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.	6-Jul-04	1-Jan-00
124	Headquarters (HQ)	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.	28-Jul-05	31-Dec-00
125	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.	11-Aug-05	31-Dec-00
126	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.	24-Aug-05	31-Dec-00
127	Jet Propulsion Laboratory (JPL)	National Centre for Space Studies (CNES)	Amendment 1: Cooperation on Mars Exploration Rover (MER 2003)	Project-Specific Agreement (PSA)	Amendment 1: This is a cooperative agreement between NASA and the Centre National d'Etudes Spatiales (CNES) on NASA's Mars Exploration Rover 2003 (MER 2003) Mission. MER 2003 will carry the Athena science payload. This cooperation includes support of French Co-investigator (Co-I). Dr. Claude d'Uston on the Athena Science Team. MER 2003 consists of two identical rovers that are to launch on two separate launch vehicles. CNES is responsible for providing: 1) Environmental testing facilities for the two APXS instruments; 2) Funding and other support, as appropriate, for Dr. Claude d'Uston to attend Athena Team meetings, training, testing, and to participate in MER 2003 surface operations at the Jet Propulsion Laboratory (JPL). NASA is responsible for providing: 1) Access to JPL facilities needed for Athena Team meetings, training, testing, and participation in MER 2003 surface operations.	18-Apr-06	31-Dec-20
128	Jet Propulsion Laboratory (JPL)	Niels Bohr Institute for Astronomy, Physics and Geophysics at the University of Copenhagen (NBI)	Extension 1: Mars Exploration Rover (MER) 2003	Project-Specific Agreement (PSA)	Extension 1: Neil's Bohr Institute (NBI) will provide Permanent Magnet Array engineering and flight models for use on the rovers' Athena payloads. They will also support a Co-I.	16-May-06	31-Dec-20

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
129	Johnson Space Center (JSC)	Russian Federal Space Agency (Roskosmos)	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.	1-Jul-06	31-Dec-24
130	Goddard Space Flight Center (GSFC)	University of Bern	Interstellar Boundary Explorer (IBEX) Mission	Project-Specific Agreement (PSA)	The University of Bern, Switzerland, is cooperating with NASA on the Interstellar Boundary Explorer (IBEX) mission, by providing hardware and testing for the IBEX-Hi Pre-collimator, the IBEX-Lo Pre-collimator, and the IBEX- Lo Outer Electrostatic Analyzer.	18-Jan-07	31-Dec-20
131	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)	<p>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.</p> <p>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.</p> <p>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.</p>	23-Jan-07	2-Apr-00
132	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.	29-Nov-07	31-Dec-00
133	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....)	1-Feb-08	31-Jan-23
134	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.	16-Apr-08	30-Jun-22
135	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.	16-Oct-08	31-Dec-00

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
136	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.	8-Dec-09	1-Jan-00
137	George C. Marshall Space Flight Center (MSFC)	University of Bern	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.	10-Mar-10	30-Sep-22
138	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'Etudes 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.	13-Jul-10	31-Dec-30
139	Headquarters (HQ)	National Centre for Space Studies (CNES)	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.	16-Sep-10	16-Sep-20
140	Goddard Space Flight Center (GSFC)	The King Abdulaziz City for Science and Technology (KACST)	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	To establish sun photometer system(s) to improve the understanding of the properties and concentration of aerosols and their relationship to aerosols on global and regional scales.	2-Oct-10	2-Oct-20
141	Goddard Space Flight Center (GSFC)	The King Abdulaziz City for Science and Technology (KACST)	Space Geodesy: Agreement with King Abdulaziz City for Science and Technology in Saudi Arabia (KACST)	Project-Specific Agreement (PSA)	Space Geodesy: Agreement with King Abdulaziz City for Science and Technology in Saudi Arabia (KACST) for Space Geodesy and geodynamics research.	2-Oct-10	2-Oct-20
142	Ames Research Center (ARC)	German Aerospace Center (DLR)	Agreement Between NASA and DLR for Associate Membership in the NASA Lunar Science Institute (NLSI)	Project-Specific Agreement (PSA)	Agreement provides for associate membership of DLR and its related organizations in the NASA Lunar Science Institute (NLSI).	8-Dec-10	8-Dec-20
143	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.	13-Dec-10	12-Dec-20
144	Goddard Space Flight Center (GSFC)	European Space Agency (ESA)	Reimbursable Space Act Agreement Between NASA and the European Space Agency (ESA) for Ongoing NASA Tracking and Data Relay Satellite System (TDRSS) Support of the Automated Transfer Vehicle (ATV)	Project-Specific Agreement (PSA)	NASA will provide to ESA, on a reimbursable basis, TDRSS services in support of the launch, free flight, docking, undock, and re-entry of each ATV Mission.	16-Dec-10	31-Dec-20

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
145	Headquarters (HQ)	Federative Republic of 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.	19-Mar-11	19-Mar-31
146	Goddard Space Flight Center (GSFC)	Gorongosa Restoration Project	Agreement Between NASA and the Gorongosa Restoration Project of Mozambique for Cooperation in the Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	NASA has established a global network of sun photometers (AERONET) 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, NASA and GRP 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 the United States and Mozambique to develop research programs using data collected in Mozambique along with aerosol data available from the global AERONET database located at NASA's Goddard Space Flight Center (GSFC) in Greenbelt, Maryland.	25-Mar-11	20-Feb-21
147	Goddard Space Flight Center (GSFC)	Moscow State University (MSU)	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	NASA and Moscow State University will continue to cooperate on the operation of an AERONET sunphotometer station located at Moscow State University. NASA provides the equipment, and Moscow State University provides the site.	31-Mar-11	31-Mar-21
148	Goddard Space Flight Center (GSFC)	University of Lille 1	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	NASA and University of Lille 1 will cooperate in the creation of an AERONET sunphotometer station located at University of Lille 1. NASA provides the equipment and University of Lille 1 provides the site.	4-Apr-11	15-Feb-21
149	Ames Research Center (ARC)	Institute of Space and Astronautical Science (ISAS)	Extension of the Memorandum of Understanding (MOU) Between NASA and the Institute and Astronautical Science of Japan Concerning Activities Related to the MU Space Engineering Spacecraft-C (MUSES-C) Program	Project-Specific Agreement (PSA)	<p>Extension of the Memorandum of Understanding (MOU): MUSES-C or Hayabusa is an Institute of Space and Astronautical Science (ISAS), or Japan Aerospace Exploration Agency (JAXA) technology demonstration mission designed to rendezvous with a near-Earth asteroid and to return samples of that asteroid to Earth. NASA responsibilities include providing for heat shield testing, technical review, backup DSN tracking, telemetry, and command support activities, radiometric navigation support, U.S. scientist participation, and ground-based observation support while JAXA responsibilities include providing for the MUSES-C spacecraft, launch, overall mission operations and design, access to NASA of asteroid samples obtained, and Japanese researchers.</p> <p>MUSES-C, a near-Earth asteroid mission. It applies to: mission development; launch; in-flight and asteroid encounter mission operations; sample return and recovery; and sample and other data analysis. The Parties shall cooperate according to the Exchange of Notes and this Memorandum of Understanding (MOU). MUSES-C is an ISAS technology demonstration mission with scientific purposes designed to rendezvous with a near-Earth asteroid and to return samples of that asteroid to Earth.</p> <p>Missing Japanese Diplomatic note from the record. Will try to obtain.</p>	22-Apr-11	25-Apr-21
150	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.	26-Apr-11	30-Apr-21

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
151	Goddard Space Flight Center (GSFC)	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).	27-Apr-11	31-Dec-20
152	Headquarters (HQ)	Norwegian Space Centre (NSC)	Implementing Arrangement (IA) Between NASA and the Norwegian Space Centre (NSC) on the Use of Analogue Sites Within the U.S. and Norway	Project-Specific Agreement (PSA)	Implementing Arrangement (IA) under the Agreement between the United States of America and the Kingdom of Norway for Cooperation in the Civil Uses of Outer Space. This IA covers cooperation in the use of analogue sites in each others' countries.	10-May-11	10-May-21
153	Ames Research Center (ARC)	Swedish National Space Board (SNSB)	Implementing Arrangement (IA) Between the NASA and the Swedish National Space Board (SNSB) for Cooperation in Aeronautic and Space Research Using Nanosatellite Technologies	Implementing Arrangement/Agreement (IA)	IA under the Framework Agreement between the Government of the United States and the Government of the Kingdom of Sweden for Cooperative Activities in the Exploration and Use of Outer Space of Peaceful Purposes, for cooperation on NanoSat technologies.	19-May-11	19-May-21
154	Goddard Space Flight Center (GSFC)	Yonsei University	Agreement Between NASA and Yonsei University of Korea for Cooperation in the 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.	23-Jun-11	30-Apr-21
155	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).	24-Jun-11	31-Mar-21
156	Johnson Space Center (JSC)	Japan Aerospace Exploration Agency (JAXA)	Calorimetric Electron Telescope (CALET)	Project-Specific Agreement (PSA)	The cooperation involves NASA science participation, mission support, and ISS utilization support for the JAXA Calorimetric Electron Telescope (CALET) payload for the ISS, to be launched on an HTV. The activity crosses mission directorates and includes significant Science Mission Directorate, Space Science, Astrophysics activities as well.	11-Jul-11	31-Dec-20
157	Goddard Space Flight Center (GSFC)	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.	14-Jul-11	30-Apr-21
158	Goddard Space Flight Center (GSFC)	Centre Royal de Teledetection Spatiale	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	NASA and Centre Royal de Teledetection Spatiale will continue to cooperate on the operation of an AERONET sunphotometer station located at mutually agreed sites in Morocco. NASA provides the equipment, and Centre Royal de Teledetection Spatiale provides the sites.	15-Jul-11	30-Apr-21
159	Goddard Space Flight Center (GSFC)	Deutsches Museum	Loan of items from Wilkinson Microwave Anisotropy Probe (WMAP) Satellite to Deutsches Museum	Project-Specific Agreement (PSA)	Loan of Artifacts from WMAP to Germany's Deutsche Museum.	20-Jul-11	31-Dec-20
160	Goddard Space Flight Center (GSFC)	Brazilian Space Agency (AEB)	Extension 1: Space Geodesy: Very Long Baseline Interferometry (VLBI)	Project-Specific Agreement (PSA)	Extension 1: NASA and the Brazilian Space Agency (AEB) will continue to cooperate on space geodesy with emphasis in VLBI. NASA loans equipment to AEB, and AEB operates a station. Cooperative space geodesy program with emphasis on the techniques and science derived from Very Long Baseline Interferometry (VLBI) IA under the Framework.	15-Aug-11	31-Aug-21
161	Langley Research Center (LaRC)	National Centre for Space Studies (CNES)	Implementing Arrangement (IA) Between NASA and the National Centre for Space Studies (CNES) for the Cloud-Aerosol Lidar and Infrared Pathfinder Satellite Observations (CALIPSO) Mission	Implementing Arrangement/Agreement (IA)	Implementing Arrangement (IA) to continue the operations of the joint NASA-CNES CALIPSO mission. Replaces the original Memorandum of Understanding (MOU) for this cooperation.	8-Sep-11	31-Mar-22
162	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.	13-Sep-11	31-May-21

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
163	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-Oct-11	30-Sep-26
164	Goddard Space Flight Center (GSFC)	Institute of Atmospheric Optics, Siberian Branch, Russian Academy of Sciences	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	NASA and the Institute of Atmospheric Optics, Siberian Branch, Russian Academy of Sciences (IAO SB RAS) will cooperate on the operation of an AERONET sunphotometer station. NASA provides the equipment and IAO SB RAS provides the site.	14-Oct-11	23-May-22
165	All NASA Centers	Government of Argentina	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.	25-Oct-11	30-Jul-23
166	Jet Propulsion Laboratory (JPL)	National Commission on Space Activities (CONAE)	Space Geodesy: Ground Stations	Project-Specific Agreement (PSA)	NASA and the National Commission on Space Activities (CONAE) will establish one or more permanent geodetic ground stations, with the first agreed-upon station to be located 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.	26-Oct-11	26-Oct-21
167	Goddard Space Flight Center (GSFC)	Brazilian Space Agency (AEB)	NASA-Brazilian Space Agency (AEB) Implementing Arrangement (IA) for Participation in the Global Precipitation Measurement (GPM) Mission	Implementing Arrangement/Agreement (IA)	The GPM mission is a NASA-led, international space initiative to understand global precipitation. The data acquired by the GPM mission will be beneficial for monitoring and predicting climatological and meteorological changes and for improving the accuracy of weather and precipitation forecasts.	27-Oct-11	27-Oct-21
168	Wallops Flight Facility (WFF)	Brazilian Space Agency (AEB)	NASA-Brazilian Space Agency (AEB) Implementing Arrangement (IA) for Participation in the Ozone Cooperation Mission	Implementing Arrangement/Agreement (IA)	The objective of this mission is to study the concentrations of various atmospheric constituents in order to contribute to the understanding of the Earth's ozone layer, its generation, and its depletion, and to help to calibrate and verify satellite remote sensors.	27-Oct-11	27-Oct-21
169	Goddard Space Flight Center (GSFC)	Canadian Space Agency (CSA)	Soil Moisture Active Passive (SMAP) Mission	Implementing Arrangement/Agreement (IA)	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, sun-synchronous orbit on an expendable launch vehicle no earlier than 2014.	21-Nov-11	21-Nov-21
170	Goddard Space Flight Center (GSFC)	Tartu Observatory	Amendment and Extension 1: Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	Amendment and Extension 1: NASA and Tartu Observatory will continue to cooperate on the operation of an AERONET sunphotometer station located at Tartu Observatory. NASA provides the equipment, and Tartu Observatory provides the site.	14-Dec-11	31-Mar-22

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
171	Johnson Space Center (JSC)	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-Feb-12	31-Dec-20
172	Goddard Space Flight Center (GSFC)	Russian Academy of Sciences	Space Geodesy: Agreement for Cooperation in the Field of Space Geodesy	Project-Specific Agreement (PSA)	NASA and the Russian Academy of Sciences (RAS) cooperate in the operation of a space geodetic station in Russia. NASA loans space geodetic equipment to RAS on a long-term basis, and RAS operates and maintains the station.	8-Feb-12	31-Aug-21
173	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.	6-Mar-12	31-Dec-25
174	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.	20-Mar-12	30-Sep-26
175	Headquarters (HQ)	Commonwealth Scientific and Industrial Research Organization (CSIRO), Government of Australia	Extension 2: NASA Balloon Launches from Australia	Project-Specific Agreement (PSA)	Extension 2: Diplomatic-level exchange of notes combining the terms of two prior agreements for the launching of balloons in Australia on July 16 and October 18, 1984, and the launching of long-duration balloon flights beyond Australia on January 24 and July 24, 1985.	24-Apr-12	12-Jun-22
176	Headquarters (HQ)	Russian Federal Space Agency (Roskosmos)	Amendment 4: 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 4: 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.	18-Jun-12	31-Dec-20

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
177	Goddard Space Flight Center (GSFC)	University of Liege	Solar Orbiter Collaboration	Project-Specific Agreement (PSA)	The Centre Spatial de Liège (Université de Liège) 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.	2-Oct-12	31-Dec-25
178	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.	15-Oct-12	31-Dec-25
179	Headquarters (HQ)	German Aerospace Center (DLR)	Implementing Arrangement (IA) Between NASA and German Aerospace Center (DLR) for Cooperation - Program/Project Management Training	Implementing Arrangement/Agreement (IA)	Implementing Arrangement (IA) Between NASA and DLR. Office of Chief Engineer. Academy for Program/Project and Engineering Leadership (APPEL) program will lead this cooperation. The parties will exchange best practices, knowledge sharing opportunities, and related experiences about program/project management.	29-Nov-12	29-Nov-22
180	Johnson Space Center (JSC)	European Space Agency (ESA)	Offset of European Space Agency's (ESA) Responsibility for Common Systems Operating Costs (CSOC) and Cargo Transportation to the International Space Station (ISS)	Implementing Arrangement/Agreement (IA)	Offset of ESA's responsibility for Common System Operations Costs (CSOC), and Compensation for the transportation of ESA cargo to and from the ISS, through the provision of cargo delivery capability aboard the ESA Automated Transfer Vehicles (ATVs) or of other agreed items, or payment of funds.	13-Dec-12	31-Dec-21
181	Johnson Space Center (JSC)	European Space Agency (ESA)	Barter of Goods and Services in Support of International Space Station Operations	Implementing Arrangement/Agreement (IA)	Barter of goods and services in support of International Space Station operations.	13-Dec-12	31-Dec-20
182	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.	19-Feb-13	31-Dec-25
183	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.)	19-Mar-13	19-Mar-23
184	Goddard Space Flight Center (GSFC)	Southeast Asia Start Regional Center (SEA START RC), Chulalongkorn University	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	Cooperation on Aerosol Robotic Network (AERONET). NASA provides AERONET instruments on loan; Southeast Asia START Regional Center provides location and local operations.	1-Apr-13	28-Feb-23
185	George C. Marshall Space Flight Center (MSFC)	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.	6-Apr-13	31-Dec-25

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
186	Goddard Space Flight Center (GSFC)	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).	10-Jun-13	30-Sep-26
187	George C. Marshall Space Flight Center (MSFC)	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.	20-Jun-13	31-Dec-23
188	Goddard Space Flight Center (GSFC)	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-Sep-13	30-Sep-23
189	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.	25-Sep-13	31-Dec-25
190	Goddard Space Flight Center (GSFC)	Japan Aerospace Exploration Agency (JAXA)	Memorandum of Understanding (MOU) Between NASA and the Japan Aerospace Exploration Agency (JAXA) for Cooperation on the Astro-H Project	Project-Specific Agreement (PSA)	Memorandum of Understanding (MOU) Between NASA and the Japan Aerospace Exploration Agency (JAXA) on cooperation on the Astro-H mission.	11-Nov-13	8-Oct-20
191	Goddard Space Flight Center (GSFC)	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.S.-France Framework Agreement.	9-Dec-13	31-Dec-25
192	Goddard Space Flight Center (GSFC)	Universidad de Concepcion	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	NASA and the Universidad de Concepcion of Chile will cooperate on the AERONET program. NASA will provide equipment on loan which the Universidad de Concepcion will host at a mutually agreed location.	20-Dec-13	31-Oct-23
193	Goddard Space Flight Center (GSFC)	Karunya University	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.	30-Jan-14	30-Jun-24

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
194	Jet Propulsion Laboratory (JPL)	German Research Centre for Geosciences (GFZ)	Gravity Recovery and Climate Experiment Follow-on (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.	10-Feb-14	31-Mar-22
195	Jet Propulsion Laboratory (JPL)	European Space Agency (ESA)	Extension 1: Mars Sample Return (MSR) Study Phase Agreement	Project-Specific Agreement (PSA)	Extension 1: This is an extension of an agreement with European Space Agency (ESA) to study planetary sample return missions and their related technology, with a particular focus on Mars.	10-Apr-14	31-Dec-20
196	Goddard Space Flight Center (GSFC)	National Centre for Space Studies (CNES)	Space Geodesy: Implementing Arrangement (IA) Between NASA and the National Centre for Space Studies (CNES) of France on Space Geodesy Activities and Applications	Implementing Arrangement/Agreement (IA)	Space Geodesy: Implementing Arrangement (IA) Between NASA and CNES, Parties will share data and host each other's instruments. This IA falls under the US-France Framework.	23-Apr-14	31-Dec-24
197	Johnson Space Center (JSC)	European Space Agency (ESA)	NASA - European Space Agency (ESA) International Space Life Sciences Working Group (ISLSWG) Agreement on ESA's Straight Ahead in Microgravity Experiment	Implementing Arrangement/Agreement (IA)	NASA and ESA will cooperate on ESA's Straight Ahead in Microgravity Experiment. NASA will provide ESA with access to hardware, and ESA and NASA will exchange data from the experiment.	12-May-14	1-Dec-20
198	Johnson Space Center (JSC)	European Space Agency (ESA)	Amendment 1: Reimbursable Space Act Agreement Between NASA and the European Space Agency (ESA) for the Development of a Generic Robotics Training Program at the European Astronaut Centre	Project-Specific Agreement (PSA)	Amendment 1 to the Reimbursable Agreement between NASA and ESA for the Development of a Generic Robotics Training Program at the European Astronaut Centre.	28-May-14	31-Dec-20
199	Goddard Space Flight Center (GSFC)	Gobabeb Research and Technical Centre	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	NASA and the Gobabeb Research and Technical Centre of Namibia will cooperate on the AERONET program. NASA will provide equipment on loan which Gobabeb will host at a mutually agreed location.	26-Jun-14	31-Mar-24
200	Goddard Space Flight Center (GSFC)	University of Blida	Amendment and Extension 1: Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	Amendment and Extension 1: Extension of 2002 AERONET Agreement: NASA provides the AERONET equipment; they provide the location and support of the system. RE: Sun photometer station in Algeria.	3-Jul-14	1-Jun-24
201	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.	3-Jul-14	1-Jan-00

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
202	Goddard Space Flight Center (GSFC)	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.S.-France Framework Agreement.	7-Aug-14	31-Dec-25
203	Headquarters (HQ)	Belgian Centre Spatiale de Liege (CSL), Belgian 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, an Extreme Ultra Violet (EUV) 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.	27-Aug-14	30-Jun-22
204	Goddard Space Flight Center (GSFC)	National Centre for Space Studies (CNES)	Implementing Arrangement (IA) Between NASA and the National Centre for Space Studies (CNES) of France on the Scientific Payload of the Tool for the Analysis of Radiation from Lightning and Sprites (TARANIS) Mission	Implementing Arrangement/Agreement (IA)	Implementing Arrangement (IA) between NASA and CNES. TARANIS is a CNES mission in which a microsatellite will undertake observations of spectacular transient luminous events (TLEs) in Earth's upper atmosphere. The TARANIS mission was designed to detect and study different phenomena associated with atmospheric storms using a microsatellite placed in a quasi-polar orbit. TARANIS includes contributions from the United States, Poland, and the Czech Republic, and has a launch target of 2016-17. NASA will provide a prototype electronics board and design for a Langmuir probe as part of the low frequency electric field experiment, and the flight sensor. CNES will build the flight electronics and incorporate them into their electric field experiment on TARANIS, in addition to accommodating the Langmuir probe sensor on the TARANIS instrument arm.	30-Sep-14	31-Dec-21

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
205	Jet Propulsion Laboratory (JPL)	Indian Space Research Organization (ISRO)	NASA-Indian Space Research Organization (ISRO) Synthetic Aperture Radar (NISAR)	Implementing Arrangement/Agreement (IA)	<p>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.</p> <p>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.</p> <p>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.</p>	30-Sep-14	30-Sep-34
206	Headquarters (HQ)	Rovio Entertainment LTD	Extension 1: Non-Reimbursable Space Act Agreement Between NASA and Rovio Entertainment, Ltd. of Finland for Cooperation in the Development of Civil Space Content for the 'Angry Birds' Game	Project-Specific Agreement (PSA)	Extension 1: Extension of the Agreement between NASA and Rovio Entertainment, Ltd., for an additional six years, for cooperation in the development of civil space content for the 'Angry Birds' game that entered into force on January 13, 2012. NASA will offer use of media items and archives - photos, film, and more. NASA will assist Rovio in producing a new, revised version of the 'Angry Birds' video game in order to ensure reasonable depictions and references to NASA civil space missions in the game and to increase public understanding of NASA's programs and missions.	17-Nov-14	12-Jan-21
207	Headquarters (HQ)	Japan Aerospace Exploration Agency (JAXA)	Hayabusa2 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.	17-Nov-14	17-Nov-25

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
208	Goddard Space Flight Center (GSFC)	National Commission on Space Activities (CONAE)	Implementing Arrangement (IA) Between NASA and the National Commission on Space Activities (CONAE) of the Argentine Republic for Cooperation in Solar and Space Physics (Heliophysics) and Space Weather Research	Implementing Arrangement/Agreement (IA)	This is a data-sharing agreement under which Argentina will provide data downlink for the NASA Van Allen Probes mission, which helps scientists understand the Sun's influence on Earth and near-Earth space by studying the Earth's radiation belts on various scales of space and time. The Van Allen Probes mission is part of NASA's Living with a Star program. Data sharing for this mission will increase scientific output and productivity to the benefit of heliophysics overall. This is an IA under the 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, signed on October 2011 (the U.S.-Argentina Framework Agreement).	19-Feb-15	31-Dec-23
209	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.	26-Feb-15	26-Feb-26
210	Jet Propulsion Laboratory (JPL)	Japan Aerospace Exploration Agency (JAXA), Ministry of Environment (MOE), National Institute for Environmental Studies (NIES)	Memorandum of Understanding (MOU) for Cooperation on OCO-2 and the Greenhouse Gases Observing Satellite (GOSAT) and GOSAT-2	Project-Specific Agreement (PSA)	Memorandum of Understanding (MOU): The GOSAT, OCO-2, and GOSAT-2 missions ('3 CO2 Missions') are elements of the Global Earth Observation System of Systems, and their measurements are expected to improve the understanding of the processes that regulate atmospheric carbon dioxide, enabling more reliable forecasts of carbon dioxide buildup and its impacts on climate change. GOSAT and GOSAT-2 contribute to Japan's implementation of the United Nations Framework Convention on Climate Change - (calibration, validation).	17-Mar-15	20-Nov-24
211	Johnson Space Center (JSC)	Canadian Space Agency (CSA)	Reimbursable Space Act Agreement Between NASA and the Canadian Space Agency (CSA) for Conditioned Stowage and Utilization Hardware Services for the International Space Station	Project-Specific Agreement (PSA)	A delegated agreement signed by the ISS Program Manager for NASA to provide CSA with conditioned transportation to and from the ISS and stowage services on-board the ISS in support of its utilization activities and with specific hardware and services needed to assist CSA with the utilization of the ISS.	7-Apr-15	31-Dec-20

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
212	Goddard Space Flight Center (GSFC)	Norwegian Space Centre (NSC)	Implementing Arrangement (IA) Between NASA and the Norwegian Space Center (NSC) on the Interface Region Imaging Spectrograph (IRIS) Mission	Implementing Arrangement/Agreement (IA)	Implementing Arrangement (IA): NASA and NSC will collaborate on IRIS observations, which will be collected through several ground stations around the globe, including one located at the Kongsberg Satellite Services - Norwegian Space Centre (KSAT-NSC) station in Svalbard, Norway. NASA and NSC use a solar telescope and spectrograph to explore the solar chromospheres. The collaboration includes analysis of the IRIS observations using 3-D numerical models from the Institute of Theoretical Astrophysics (ITA) at the University of Oslo, Norway. The ground station support from KSAT-NSC in Svalbard will be provided through December 31, 2016, following the launch of IRIS. The ground station will support an adequate number of downlink and uplink passes to support operations and an average data rate on the order of 50 gigabytes (Gbytes) per day.	8-May-15	10-Jan-21
213	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.	11-May-15	11-May-00
214	Ames Research Center (ARC)	Catholic University of the North (UCN)	Amendment 4: Astrobiology Field Investigations in the Atacama and Altiplano Regions of Northern Chile	Project-Specific Agreement (PSA)	Amendment 4: Cooperation on astrobiology field campaigns in the Atacama Desert and Altiplan Region of Chile in collaboration with the Catholic University of the North.	8-Jun-15	30-Sep-20
215	Jet Propulsion Laboratory (JPL)	National Centre for Space Studies (CNES)	Implementing Arrangement (IA) Between NASA and the Centre National D'Etudes Spatiales (CNES) of France on the SuperCam Instrument for the Mars 2020 Mission	Implementing Arrangement/Agreement (IA)	<p>Mars 2020 is the next strategic mission in NASA's Mars Exploration Program. The mission will land a rover on the planet to conduct a wide range of scientific exploration, consistent with NASA's science goals for the Mars Exploration Program. Mars 2020's objective is to explore for signs of ancient life and habitable environments, study Martian weather and atmosphere, and study Martian geology. NASA plans to launch the mission in July 2020, and land on Mars in February 2021. NASA expects that the rover will conduct operations until at least August 2023.</p> <p>One of the seven scientific and exploration instruments on the Mars 2020 payload includes the SuperCam: Active and Reflectance Mineralogy, Astrobiology, Chemistry, and Imaging at Remote Distances instrument suite. NASA selected Dr. Roger Wiens of the Los Alamos National Laboratory (LANL) as the SuperCam Principal Investigator (PI). Dr. Sylvestre Maurice of the Institut de Recherche en Astrophysique et Planetologie (IRAP/CNRS) is the Deputy Principal Investigator and the science and technical lead of the French contribution to SuperCam. The French team will develop the SuperCam Mast Unit and the American team will develop the SuperCam Body Unit.</p> <p>This Implementing Arrangement will be concluded pursuant to the Framework Agreement between the Government of the French Republic and the Government of the United States of America for Cooperative Activities in the Exploration and Use of Outer Space for Peaceful Purposes.</p>	16-Jun-15	30-Jun-24
216	Jet Propulsion Laboratory (JPL)	National Institute for Aerospace Technology (INTA), The Spanish Centro para el Desarrollo Tecnológico 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.	16-Jun-15	31-Dec-25

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
217	Glenn Research Center at Lewis Field (GRC), Johnson Space Center (JSC)	European Space Agency (ESA)	Implementing Arrangement (IA) Between NASA and the European Space Agency (ESA) Concerning NASA's Provision of a Short Duration Flight Opportunity in Exchange for Goods and Services related to the Orion Multi-Purpose Crew Vehicle Service Module	Implementing Arrangement/Agreement (IA)	Barter exchanging short duration increment opportunity on the ISS (Launch 44S, Return 42S) for hardware towards Service Module 2 (or spares for SM 1).	25-Jun-15	31-Dec-21
218	Headquarters (HQ)	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.S.-Brazil 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.S.-Brazil collaboration in heliophysics and space weather research.	30-Jun-15	30-Jun-25
219	Headquarters (HQ)	Agencia Espacial Mexicana (AEM)	Nonreimbursable Space Act Agreement Between the Agencia Espacial Mexicana and the National Aeronautics and Space Administration for Collaboration on the Aztechsat-1 Cubesat Communications Technology Demonstration	Project-Specific Agreement (PSA)	An additional Mission Type: HEO. The AztechSat-1 CubeSat technology demonstration will provide NASA with the opportunity to test economical, commercial, off-the-shelf components, which may be useful in future space missions. AztechSat-1 will use GlobalStar, the low Earth orbit (LEO) satellite constellation for satellite phone and low-speed data communications. AEM will manufacture a prototype, perform ground testing, deliver a flight certified unit of its AztechSat-1 CubeSat, lead mission operations, and share flight data with NASA. NASA will provide project management overview and systems engineering overview, participate in design reviews, perform environmental testing, launch on CRS Mission to ISS, and support AztechSat-1 mission operations, consistent with U.S. export control laws and regulations.	1-Jul-15	28-Feb-21
220	Johnson Space Center (JSC)	Canadian Space Agency (CSA)	NASA-Canadian Space Agency (CSA) High Resolution Peripheral Quantitative Computed Tomography (HR-pQCT) International Space Life Sciences Working Group (ISLSWG) Agreement	Implementing Arrangement/Agreement (IA)	NASA and Canadian Space Agency (CSA) have agreed to cooperate on CSA's baseline data collection for their TBone experiment, which will require the installation of the High Resolution Peripheral Quantitative Computed Tomography (HR-qQCT) at the NASA Johnson Space Center.	9-Jul-15	31-Dec-20
221	Jet Propulsion Laboratory (JPL)	Government of Spain, National Institute for Aerospace Technology (INTA)	Amendment 2: Scientific Cooperation Agreement Between the United States of America and the Kingdom of Spain for the NASA Tracking Station	Project-Specific Agreement (PSA)	Amendment 2: This is a continuation of cooperation in the utilization of a ground station in Spain for transmission and reception of radio-electric signals in support of space probes, spacecraft, and space science for peaceful ends. Dip notes were required to enter the agreement into force, and these came into force in November 2003. Full agreement (English & Spanish versions, plus both dip notes) now attached.	4-Sep-15	17-Nov-24
222	Jet Propulsion Laboratory (JPL)	Italian Space Agency (ASI)	Earth Observation Research Related to Environmental Monitoring and Hazard/Disaster Management (COSMO-SkyMed)	Project-Specific Agreement (PSA)	Cooperative research using the Italian Space Agency (ASI) COSMO-SkyMed data. May involve downlink at the Alaska Satellite Facility and access to NASA postdoc programs.	9-Sep-15	31-Oct-20
223	Goddard Space Flight Center (GSFC)	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.	17-Sep-15	16-Sep-25
224	Goddard Space Flight Center (GSFC)	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.	25-Sep-15	24-Sep-25

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
225	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.	5-Oct-15	5-Oct-20
226	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.	6-Oct-15	14-Oct-25
227	Glenn Research Center at Lewis Field (GRC)	Canadensys (CAC)	Annex 1: Reimbursable Umbrella Space Act Agreement Between NASA and Canadensys Aerospace Corporation Regarding Environmental Testing of Space Exploration Hardware	Umbrella/Framework Agreement (UM/FW)	Annex 1: NASA GRC will provide testing of Canadensys technology to include thermal cycling of the partner's rover prototype drivetrain hardware.	13-Oct-15	12-Oct-20
228	Langley Research Center (LaRC)	The National Institute of Environmental Research of the Republic of Korea (NIER)	Korea-United States Air Quality Field Study (KORUS-AQ)	Project-Specific Agreement (PSA)	This Korea-United States Air Quality Field Study (KORUS-AQ) agreement is for a scientific airborne campaign that will provide critical information on the challenges faced by satellites to distinguish air quality conditions at the surface from conditions at higher altitudes.	14-Oct-15	30-Nov-20
229	Headquarters (HQ), Jet Propulsion Laboratory (JPL)	Defense Research Establishment (FFI or Forsvarets Forskning Institutt in Norwegian)	Mars 2020 Radar Imagers for Mars' SubsurFACE eXperiment (RIMFAX) Phase B-F Agreement	Project-Specific Agreement (PSA)	This agreement is for the Norwegian Defense Research Establishment (FFI) to provide the Radar Imagers for Mars' subsurFACE eXperiment (RIMFAX) ground penetrating radar (GPR) to NASA for the Mars 2020 rover.	20-Oct-15	30-Jun-24
230	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.	23-Oct-15	22-Oct-25
231	Headquarters (HQ)	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.	31-Oct-15	13-Oct-25
232	Goddard Space Flight Center (GSFC)	Royal Institute of Technology (KTH)	Amendment: Gamma Ray Large Area Space Telescope Mission (GLAST)/Fermi	Project-Specific Agreement (PSA)	Amendment: Fermi is a NASA mission whose scientific investigations were selected through a NASA AO 99-OSS-03. GLAST will identify and study nature's highest energy particle accelerators, measuring, with two instruments, the spectra and temporal histories of gamma rays in the energy range from 10 KeV to 300 GeV.	2-Nov-15	31-Dec-20
233	Headquarters (HQ), Jet Propulsion Laboratory (JPL)	University of Valladolid (UVA)	Mars 2020 SuperCam Calibration Target Agreement	Project-Specific Agreement (PSA)	This agreement is for the University of Valladolid (UVA) of Spain to provide a calibration target assembly to NASA for the Mars 2020 rover's SuperCam instrument.	3-Nov-15	30-Jun-24

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
234	George C. Marshall Space Flight Center (MSFC)	Ku Leuven, Katholieke Universiteit Leuven of Belgium (KUL)	Global Precipitation Measurement (GPM)	Project-Specific Agreement (PSA)	NASA's Global Precipitation Measurement (GPM) mission consists of a constellation of international satellites that provide measurements in the microwave and infrared portions of the spectrum. Data from these satellites are processed into global products that estimate integrated precipitation for timescales on the order of three hours. The GPM mission also includes a ground validation component that quantifies the accuracy of precipitation data products. High-latitude precipitation is of particular interest to GPM ground validation because the data product algorithms used in these regions are relatively new and untested, and there are very few meteorological observations in Antarctica.	15-Nov-15	15-Nov-20
235	George C. Marshall Space Flight Center (MSFC)	United Kingdom Space Agency (UKSA)	Jupiter Icy Moons Explorer (JUICE) Mission - Particle Environments Package (PEP)	Project-Specific Agreement (PSA)	<p>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:</p> <p>How does the co-rotating magnetosphere of Jupiter interact with the complex and diverse environment of Ganymede?</p> <p>How does the rapidly rotating magnetosphere of Jupiter interact with seemingly inert Callisto?</p> <p>What are the governing mechanisms and their global impact of release of material into the Jupiter magnetosphere from Europa and Io?</p> <p>How do internal and solar wind drivers cause such energetic, time-variable and multi-scale phenomena in the steadily rotating giant magnetosphere of Jupiter?</p>	23-Nov-15	30-Jun-34
236	Johnson Space Center (JSC)	European Space Agency (ESA)	NASA - European Space Agency (ESA) Implementing Arrangement (IA) for the Modification and Delivery of the Hexapod Pointing System	Implementing Arrangement/Agreement (IA)	NASA and ESA have reached an understanding regarding ESA's updated scope of work for the Hexapod pointing system (Hexapod) in exchange for NASA providing a Columbus External Payload Adapter for ESA's Atmospheric Space Interactions Monitoring Instrument (ASIM), install the Columbus Ka-Bans antenna, and as a means of offsetting ESA's obligation to reimburse NASA for TDRSS support for ATV-4 and -5.	24-Nov-15	31-Dec-20
237	Headquarters (HQ)	European Space Agency (ESA)	Advanced Resistive Exercise Device (ARED) Kinematics Project Letter of Agreement	Implementing Arrangement/Agreement (IA)	A Letter of Agreement between ESA and NASA under the International Space Life Sciences Working Group (ISLSWG) ISS Arrangement for the Advanced Resistive Exercise Device (ARED) Kinematics Project on the ISS.	8-Dec-15	1-Dec-20
238	Headquarters (HQ)	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.	9-Dec-15	31-Dec-00
239	Ames Research Center (ARC), Headquarters (HQ), Johnson Space Center (JSC)	European Space Agency (ESA)	NASA and European Space Agency (ESA) Letter of Agreement (LOA) Regarding the Vestibular-Evoked Myogenic Potentials in Microgravity (VEMP)	Implementing Arrangement/Agreement (IA)	An LOA under the ISS International Space Life Sciences Working Group (ISLSWG) Arrangement. The LOA concerns NASA support of the ESA sponsored VEMP experiment. VEMP is an experiment that will assess otolith function on 12 crewmembers before, during and after long duration missions on the International Space Station.	11-Dec-15	31-Dec-20
240	Goddard Space Flight Center (GSFC)	German Aerospace Center (DLR)	Gamma Ray Large Area Space Telescope Mission (GLAST)/Fermi	Project-Specific Agreement (PSA)	Fermi is a NASA mission whose scientific investigations were selected through a NASA AO 99-OSS-03. GLAST will identify and study nature's highest energy particle accelerators, measuring, with two instruments, the spectra and temporal histories of gamma rays in the energy range from 10 KeV to 300 GeV.	16-Dec-15	31-Dec-20
241	Jet Propulsion Laboratory (JPL)	German Aerospace Center (DLR)	Amendment: Mars Exploration Rover 2003 (MER 2003) Mission - Alpha Particle X-ray Spectrometer (APXS)	Project-Specific Agreement (PSA)	Amendment: NASA and the German Aerospace Center (DLR) are cooperating on NASA's Mars Exploration Rover 2003 (MER 2003) mission, comprised of two separate rovers. The cooperation involves German provision of Alpha Particle X-Ray Spectrometer (APXS) engineering and flight models, which will be part of the two rovers' Athena payloads.	16-Dec-15	31-Dec-20

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
242	Jet Propulsion Laboratory (JPL)	German Aerospace Center (DLR)	Mars Exploration Rover 2003 (MER 2003) Mission - Mossbauer Spectrometers	Project-Specific Agreement (PSA)	Amendment: NASA and the German Aerospace Center (DLR) are cooperating on NASA's Mars Exploration Rover 2003 (MER 2003) mission, comprised of two separate rovers. The cooperation involves German provision of Mossbauer Spectrometer engineering and flight models, which will be part of the two rover's Athena payloads and will be mounted on instrument deployment devices.	16-Dec-15	31-Dec-20
243	Jet Propulsion Laboratory (JPL)	German Aerospace Center (DLR)	Amendment: Mars Exploration Rover (MER 2003) Mission - Participating Scientists	Project-Specific Agreement (PSA)	Amendment: The NASA and the German Aerospace Center (DLR) are cooperating on NASA's MER 2003 Mission, comprised of two separate rovers. This cooperation involves DLR support of the following three German Participating Scientists on the MER 2003 science team: Mr. Johannes Brueckner, Mr. Stubbe Hviid, and Mr. Lutz Richter. All three were selected as Participating Scientists through the NASA Announcement of Opportunity AO-01-OSS-04.	16-Dec-15	31-Dec-20
244	Johnson Space Center (JSC)	European Space Agency (ESA)	Reimbursable Space Act Agreement Between NASA and the European Space Agency (ESA) for International Space Station (ISS) Crew Support Services	Implementing Arrangement/Agreement (IA)	Agreement for NASA to provide ISS crew support services for ESA. Services include training, Star City services, medical, launch and landing.	18-Dec-15	31-Dec-20
245	Johnson Space Center (JSC)	European Space Agency (ESA)	Amendment and Extension: NASA-European Space Agency (ESA) Portable Pulmonary Function System Agreement	Project-Specific Agreement (PSA)	Amendment and Extension: This agreement amends the original NASA-ESA Portable Pulmonary Function System Agreement for the continued utilization of the Portable PFS and to extend the agreement.	18-Dec-15	31-Dec-20
246	Goddard Space Flight Center (GSFC), Headquarters (HQ)	Prefeitura de Rio de Janeiro, Brazil	Hazard Monitoring and Disaster Response In and Around Rio de Janeiro, Brazil	Project-Specific Agreement (PSA)	The purpose of this Agreement is to forge a closer scientific collaboration between NASA and the City of Rio de Janeiro, specifically through the exchange of knowledge between disciplines and the use of Earth observations data and data products to support innovative and ongoing efforts to anticipate, monitor and assess the contributions to disaster risk from natural hazards (including flooding, inundation, landslides, mudslides, drought, heat islands, etc.) in the vicinity of Rio de Janeiro. Collaboration between scientists at NASA and the Prefeitura, through the Instituto Pereira Passos (IPP), Rio de Janeiro Centro de Operações Rio (COR), and Fundação Geo-Rio, would focus on enabling rapid dissemination of and access to satellite data products to enhance scientific understanding, education and risk awareness, and enabling societal benefit, such as crisis response.	22-Dec-15	22-Dec-20
247	Headquarters (HQ), Johnson Space Center (JSC)	Canadian Space Agency (CSA), Japan Aerospace Exploration Agency (JAXA), National Space Development Agency of Japan (NASDA), European Space Agency (ESA)	Umbrella/Framework Agreement: Arrangement Among the Canadian Space Agency (CSA), the European Space Agency (ESA), NASA, and the National Space Development Agency of Japan Concerning International Space Life Sciences Flight Experiments on the International Space Station	Umbrella/Framework Agreement (UM/FW)	Umbrella/Framework Agreement: Extension of Comprehensive Arrangement between NASA, CSA, ESA, and NASDA (now JAXA) for International Space Life Sciences Flight Experiments on the International Space Station (ISS). In order to further the goal established by the International Space Life Sciences Working Group (ISLSWG), the Parties as ISLSWG members will implement an international approach to life sciences flight experiment recruitment, review, selection, and implementation on the ISS. This agreement establishes the general principles, terms, and conditions under which the Parties will implement the International Space Life Science experiments (flight experiment) for peaceful purposes on the ISS.	22-Dec-15	31-Dec-20
248	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.	29-Dec-15	29-Dec-25
249	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.S.-French Umbrella.	30-Dec-15	31-Dec-20

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
250	Goddard Space Flight Center (GSFC)	German Aerospace Center (DLR)	Amendment 1: 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.	4-Jan-16	23-Dec-23
251	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 Hokkaido University will house at a mutually agreed location.	6-Jan-16	5-Jan-26
252	Goddard Space Flight Center (GSFC)	University of Versailles Saint-Quentin-en-Yvelines of France	Agreement Between NASA and the University of Versailles Saint-Quentin-en-Yvelines for Cooperation on a Network for the Detection of Atmospheric Chemical Change (NDACC) Validation Campaign	Project-Specific Agreement (PSA)	NASA Upper Atmospheric Research Program cooperation with the University of Versailles Saint-Quentin-en-Yvelines of France on a NDACC validation campaign.	11-Jan-16	30-Sep-20
253	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.	12-Jan-16	30-Jun-25
254	Glenn Research Center at Lewis Field (GRC)	Environment Canada	Amendment and Extension 1: NASA-Environment Canada (EC) Agreement for Cooperative Activities Pertaining to Atmospheric Icing Research	Project-Specific Agreement (PSA)	Amendment and Extension 1: NASA/EC will conduct cooperative activities related to icing cloud and mixed phase atmospheric definition, in-situ and remote instrumentation development, and data processing and analysis techniques. This interest concerns cooperative research to characterized atmospheric icing environments, to study the physical phenomena associated with the impact of liquid water droplets and ice crystals on aircraft surfaces, air data probes and engines, and to improve in-situ and remote sensing of the environment that would generate accurate and credible measurements for use by the aviation community and aviation weather forecasters. This amendment extends the expiration date of the agreement five years, adds new responsibilities to the original Agreement, changes the Environment and Climate Change Canada (ECCC) agreement Point of Contact, as well as sets a new schedule section within the original agreement.	22-Jan-16	31-Jan-21

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
255	Goddard Space Flight Center (GSFC), Headquarters (HQ), Jet Propulsion Laboratory (JPL)	The Gabonese Space Agency for Studies and Observations (AGEOS)	Memorandum of Understanding (MOU) Between NASA and the Gabonese Space Agency for Studies and Observations of the Republic of Gabon for Cooperation on the Gabon Terrestrial Ecosystems Collaboration	Project-Specific Agreement (PSA)	The Gabon Terrestrial Ecosystems Collaboration (G-TEC) is a calibration and validation effort in Gabon for two Earth science satellite missions, the Global Ecosystem Dynamics Investigation Lidar (GEDI) and the joint NASA-ISRO Synthetic Aperture Radar Mission (NISAR). NASA will collect science data over test sites in Gabon with airborne instrument testbeds for the NISAR and GEDI missions, including the Uninhabited Aerial Vehicle Synthetic Aperture Radar (UAVSAR) instrument flown on the NASA C-20A research aircraft and the Land, Vegetation, and Ice Sensor (LVIS) instrument flown on the NASA B-200 research aircraft.	4-Feb-16	31-Oct-21
256	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 Instituto Superior Politecnico da Tundavala (ISPT). ISPT will host and maintain the equipment, and contribute to the AERONET database.	5-Feb-16	4-Feb-26
257	Ames Research Center (ARC)	Swiss International Air Lines Limited	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)	This cooperative agreement aims to improve aviation safety and assure safe and effective human systems integration through collaborative research. NASA and SWISS will partner in the analysis of flight and human performance data to gain further insight into these issues. Mission Type: Air Space Operations and Safety.	9-Feb-16	31-Dec-20
258	Johnson Space Center (JSC)	ETH Zurich	International Lunar Sample Loan Agreement	Project-Specific Agreement (PSA)	Dr. Maria Schonbachler Eidgenossische Technische Hochschule Zurich in Zurich, Switzerland proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Apollo Sample Curator).	10-Feb-16	31-Oct-20
259	Johnson Space Center (JSC)	The Universite Libre de Bruxelles	International Lunar Sample Loan Agreement	Project-Specific Agreement (PSA)	Dr. Vinciane Debaille of The Universite Libre de Bruxelles in Brussels, Belgium proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Apollo Sample Curator).	10-Feb-16	31-Oct-20
260	Johnson Space Center (JSC)	University of Manchester	International Lunar Sample Loan Agreement	Project-Specific Agreement (PSA)	Dr. John Pernet-Fisher of The University of Manchester in Manchester, United Kingdom, proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Apollo Sample Curator).	10-Feb-16	31-Oct-20
261	Johnson Space Center (JSC)	University of Munster	International Lunar Sample Loan Agreement	Project-Specific Agreement (PSA)	Dr. Erik Scherer of the (Universitat) University of Munster in Munster, Germany proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Apollo Sample Curator).	10-Feb-16	31-Oct-20
262	Glenn Research Center at Lewis Field (GRC)	Heriot-Watt University	Reimbursable Space Act Agreement Between NASA and Heriot-Watt University for the Measurement of Q-Band Propagation Data in Edinburgh	Project-Specific Agreement (PSA)	The purpose of this Agreement is to set forth the respective responsibilities of the Implementing Agencies and the terms and conditions under which they will cooperate in the installation and operation of the Q-band RF Propagation Monitoring Station at the Heriot-Watt University in Edinburgh, Scotland.	4-Mar-16	4-Mar-21
263	Goddard Space Flight Center (GSFC)	National Centre for Scientific Research (CNRS)	Gamma Ray Large Area Space Telescope Mission (GLAST)/Fermi	Project-Specific Agreement (PSA)	NASA and the National Centre for Scientific Research (CNRS) will cooperate on the GLAST mission.	15-Mar-16	31-Dec-20
264	Johnson Space Center (JSC)	The Universite Libre de Bruxelles	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Rosalind Armytage of the Universite Libre de Bruxelles in Bruxelles, Belgium, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by the PI. 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.	18-Mar-16	18-Mar-21
265	Johnson Space Center (JSC)	Vrije University Brussels (VUB)	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Philippe Claeys of VUB in Brussels, Belgium, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by the PI. 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.	18-Mar-16	18-Mar-21

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
266	Johnson Space Center (JSC)	Museum National d'Histoire Naturelle	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Emmanuel Jacquet of the Museum National d'Histoire Naturelle de Paris in Paris, France, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by the PI. 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.	18-Mar-16	18-Mar-21
267	Johnson Space Center (JSC)	Australian National University (ANU)	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Trevor Ireland of The Australian National University in Canberra, Australia, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by the PI. 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.	18-Mar-16	18-Mar-21
268	Johnson Space Center (JSC)	ETH Zurich	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Maria Schonbachler of ETH Zurich in Zurich, Switzerland, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by the PI. 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.	18-Mar-16	18-Mar-21
269	Johnson Space Center (JSC)	Universita di Pisa	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Maurizio Gemelli of Universita di Pisa in Pisa, Italy, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by the PI. 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.	18-Mar-16	18-Mar-21
270	Johnson Space Center (JSC)	University of Bern	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Antoine Roth of University of Bern in Bern, Switzerland, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by the PI. 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.	18-Mar-16	18-Mar-21
271	Johnson Space Center (JSC)	The University of Cape Town	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Geoffrey H. Howarth of University of Cape Town, in Rodebosch, South Africa proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by the PI. 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.	18-Mar-16	18-Mar-21
272	Johnson Space Center (JSC)	Natural History Museum	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Joe Michalski of the Natural History Museum in London, UK, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by the PI. 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.	18-Mar-16	18-Mar-21
273	Johnson Space Center (JSC)	University of Cologne	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Dr. Dominik Hezel of University of Cologne, Dep. of Geology & Mineralogy in Cologne, Germany, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by the PI. 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.	18-Mar-16	18-Mar-21
274	Johnson Space Center (JSC)	CEREGE	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Jerome Gattacceca of Cerege in Aix en Provence, France, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by the PI. 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.	18-Mar-16	18-Mar-21
275	Johnson Space Center (JSC)	University of Bern	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Dr. Yann Brouet of the Physics Institute at the Univeristy of Bern, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by the PI. 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.	18-Mar-16	18-Mar-21

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
276	Johnson Space Center (JSC)	Kyushu University	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Takaaki Noguchi of Kyushu University in Fukuoka, Japan, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by the PI. 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.	18-Mar-16	18-Mar-21
277	Johnson Space Center (JSC)	Lund University	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Stephen Hall of Lund University in Lund, Sweden, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by the PI. 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.	18-Mar-16	18-Mar-21
278	Johnson Space Center (JSC)	CRPG-CNRS	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Yves Marrocchi of CRPG-CNRS in Nancy, France, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by the PI. 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.	18-Mar-16	18-Mar-21
279	Johnson Space Center (JSC)	The Universite Libre de Bruxelles	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Vinciane Debaille of Universite Libre de Bruxelles, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by the PI. 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.	18-Mar-16	18-Mar-21
280	Johnson Space Center (JSC)	the CNRS Midi-Pyrenees	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Ghyslaine Quitte of the CNRS Midi-Pyrenees (on behalf the Institut de Recherche en Astrophysique et Planetologie - IRAP, OMP) in Toulouse, France, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by the PI. 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.	18-Mar-16	18-Mar-21
281	Headquarters (HQ)	Japan Aerospace Exploration Agency (JAXA)	Reimbursable Space Act Agreement Between NASA and the Japan Aerospace Exploration Agency (JAXA) for International Space Station (ISS) Crew Support Services	Project-Specific Agreement (PSA)	Reimbursable Agreement for NASA to provide crew support services to JAXA. Services include training support, medical support, Star City support, and launch and landing support.	23-Mar-16	31-Dec-24
282	Goddard Space Flight Center (GSFC)	St. Petersburg State University (Russia)	Aerosol Robotic Network (AERONET)	Project-Specific Agreement (PSA)	NASA and St. Petersburg State University (SPSU-Russia) will cooperate on the operation of an AERONET sun photometer station and/or Lidar stations located at SPSU. SPSU has their own instrument, and NASA will provide calibration on that instrument.	29-Mar-16	31-Dec-24
283	Goddard Space Flight Center (GSFC)	Atomic Energy Commission (CEA)	Extension 2: Gamma Ray Large Area Space Telescope Mission (GLAST)/Fermi	Project-Specific Agreement (PSA)	Extension 2: Fermi is a NASA mission whose scientific investigations were selected through a NASA AO 99-OSS-03. GLAST will identify and study nature's highest energy particle accelerators, measuring, with two instruments, the spectra and temporal histories of gamma rays in the energy range from 10 KeV to 300 GeV.	15-Apr-16	31-Dec-20
284	Goddard Space Flight Center (GSFC)	The Korea Institute of Ocean Science and Technology (KIOST)	Memorandum of Understanding (MOU) Between NASA and the Korea Institute of Ocean Science and Technology of the Republic of Korea for Cooperation on the United States-Korea Ocean Color Field Study (KORUS-OC)	Project-Specific Agreement (PSA)	Memorandum of Understanding (MOU): The Korea-United States Ocean Color Field Study (KORUS-OC) is a science mission that will use ship, airborne, and satellite observations to study ocean color in preparation for future geostationary missions. KORUS-OC follows the Korea-United States Air Quality Field Study (KORUS-AQ).	16-Apr-16	31-Oct-20
285	Goddard Space Flight Center (GSFC), Jet Propulsion Laboratory (JPL)	German Aerospace Center (DLR)	Amendment: L-Band (DESDynI-Tandem-L) Synthetic Aperture Radar Pre-Phase A	Project-Specific Agreement (PSA)	Amendment: Study agreement for potential future cooperation in L-band synthetic aperture radar.	21-Apr-16	31-Dec-20

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
286	Headquarters (HQ)	Korea Advanced Institute of Science and Technology (KAIST), Korea Aerospace Research Institute (KARI), Korea Agency for Infrastructure Technology Advancement (KAIA), Korea Astronomy and Space Science Institute (KASI), Korea Meteorological Administration (KMA)	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.	27-Apr-16	27-Apr-27
287	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.	28-Apr-16	27-Mar-26
288	Goddard Space Flight Center (GSFC), Headquarters (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).	24-May-16	24-May-21
289	Goddard Space Flight Center (GSFC)	Curtin University of Technology	Letter of Agreement Between NASA and Curtin University for Cooperation on Ocean Color Research	Project-Specific Agreement (PSA)	NASA and Curtin University scientists will cooperate on ocean color research in the Antarctic Ocean (aka Southern Ocean).	25-May-16	25-May-21
290	Ames Research Center (ARC)	German Aerospace Center (DLR)	Extension 2: Memorandum of Understanding (MOU) Between NASA and the Deutsches Zentrum Fur Luft - Und Raumfahrt for the Stratospheric Observatory for Infrared Astronomy (SOFIA)	Project-Specific Agreement (PSA)	Extension 2: The Memorandum of Understanding (MOU) between NASA and the Deutsches Zentrum Fur Luft-Und Raumfahrt (DLR) for the Stratospheric Observation for Infrared Astronomy (SOFIA) Program. Desiring to continue cooperation on SOFIA Program under MOU signed December 16 and 20, 1996, as amended and extended by the agreement signed on December 11 and 15, 2006; and remain in force until December 15, 2020 (signed June 2, 2016).	2-Jun-16	15-Dec-20
291	Johnson Space Center (JSC)	European Space Agency (ESA)	Reimbursable Space Act Agreement Between NASA and the European Space Agency (ESA) for the Use of NASA's Common Spares Pool (CSP) on the International Space Station (ISS)	Implementing Arrangement/Agreement (IA)	This agreement replaced the 2010 Agreement with ESA regarding Common Spares Pool (CSP). ESA has requested that NASA provide ESA with access to NASA's Common Spares Pool. This Agreement describes the following: Process and mechanism by which ESA will participate in the CSP; ESA's portion of administrative, material, repair retention, repair and CSP sustaining engineering support costs; Means for determining if additional CSP items must be procured to support ESA utilization of the CSP; Means by which ESA will reimburse NASA for these services; Priority of use of spares; Roles and responsibilities; and Upmass/downmass requirements.	4-Jun-16	31-Dec-20
292	Glenn Research Center at Lewis Field (GRC)	York University	Amendment 2: Super-Critical Water Oxidation (SCWO) Test Facility Agreement	Project-Specific Agreement (PSA)	Amendment 2: NASA is loaning the Super-Critical Water Oxidation (SCWO) Test Facility to York University in Toronto, Canada. York University will return the Test Facility to operational status and use it for 18 months for research. NASA will be able to collaborate on research and review the data.	6-Jun-16	31-Mar-21

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
293	Headquarters (HQ)	United Arab Emirates Space Agency (UAESA)	Framework Agreement Between the Government of the United States of America and the Government of the United 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.	12-Jun-16	12-Jun-26
294	All NASA Centers	United Arab Emirates Space Agency (UAESA)	Implementing Arrangement (IA) Between NASA and the United Arab Emirates Space Agency (UAESA) for Cooperation in the Exploration of Mars	Implementing Arrangement/Agreement (IA)	Implementing Arrangement (IA) between NASA and United Arab Emirates Space Agency (UAESA) for cooperation in the Exploration of Mars.	12-Jun-16	31-Dec-24
295	Ames Research Center (ARC), Headquarters (HQ), Johnson Space Center (JSC)	Japan Aerospace Exploration Agency (JAXA)	Implementing Arrangement: NASA - Japan Aerospace Exploration Agency (JAXA) Letter of Agreement (Mice Tissue Sharing)	Implementing Arrangement/Agreement (IA)	Implementing Arrangement (IA): Letter of Agreement under the ISLSWG Arrangement. JAXA sharing one and a half eyeballs from each mouse flown to the International Space Station for JAXA's first rodent mission.	17-Jun-16	31-Dec-20
296	Goddard Space Flight Center (GSFC)	V.N. Sukachev Institute of Forest, Siberian Branch, Russian Academy of Sciences (RAS)	Siberian Boreal Forest Research in Krasnoyarsk	Project-Specific Agreement (PSA)	NASA and the Russian Academy of Sciences (RAS) will continue to cooperate on Siberian boreal forest research in Krasnoyarsk, Russia. NASA and RAS conduct joint field campaigns each summer.	24-Jun-16	15-Jun-21
297	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.	30-Jun-16	30-Jun-26
298	Headquarters (HQ)	Mad Science Group (MSG)	Extension 1: Non-Reimbursable Space Act Umbrella Agreement Between the Mad Science Group (MSG) of Canada and NASA for a Strategic Alliance to Foster Science, Technology, Engineering and Mathematics (STEM) Education and Public Outreach Activities	Umbrella/Framework Agreement (UM/FW)	Mission Directorates: Office of Education, SMD, and Office of Communications. Extension: This letter extends Agreement CA-0452-0 which shall govern NASA's ongoing collaboration with Mad Science Group to foster STEM education and public outreach activities. NASA agrees to provide support of projects undertaken in any Annex, internal coordination of approvals for Annexes, and provide a single point of contact for Annex development and operations. Original: This Umbrella Agreement shall be for the purpose of continuing and expanding the NASA and MSG relationship begun in 2006, under the November 2006 'Non-Reimbursable Space Act Agreement between NASA and the Mad Science Group' for education and outreach focused on science, technology, engineering, and mathematics (STEM) concepts and NASA content in an entertaining, instructional format. Annex One will continue The Academy of Future Space Explorers ('ACADEMY' or 'AFSE') which is an instructor-mediated, entertaining educational experience in the form of in-school, afterschool, summer, and community-based programming designed for children in grades K-6 and currently available in North America and in international locations. MSG delivers NASA content in a format that is correlated to all state curricula and the National Science Education Standards throughout the world via its franchise network.	21-Jul-16	22-Jul-21
299	Johnson Space Center (JSC)	German Aerospace Center (DLR)	Implementing Arrangement (IA) Between NASA and German Aerospace Center (DLR) for Cooperation on Human Research Investigations Utilizing the Human Exploration Research Analog (HERA) Facility	Implementing Arrangement/Agreement (IA)	This Implementing Arrangement (IA) enables DLR sponsored human research investigations which utilize the NASA HERA facility.	11-Aug-16	1-Nov-21

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
300	Ames Research Center (ARC)	Netherlands Organization for Scientific Research (NWO)	Astrochemistry and Astrobiology Project (AAP)	Project-Specific Agreement (PSA)	<p>The National Aeronautics and Space Administration (NASA) and the Netherlands Organization for Scientific Research (NWO) have expressed a mutual interest in pursuing cooperation on the Astrochemistry and Astrobiology Project (AAP).</p> <p>The AAP is the study of the organic inventory of space, in particular in regions of star and planet formation, and its relationship to the prebiotic origin of life. The AAP program consists of a coherent set of experimental, quantum chemical, and astronomical modeling efforts on characteristics and reaction pathways on molecules of astrophysical relevance jointly performed by NASA's Ames Research Center's (ARC) Astrochemistry Laboratory and the NWO/Dutch Astrochemistry Network-II (DAN-II).</p>	16-Aug-16	16-Aug-21
301	Johnson Space Center (JSC)	Helmholtz Zentrum Muenchen	International Lunar Sample Loan Agreement	Project-Specific Agreement (PSA)	Dr. Philippe Schmitt-Kopplin of Helmholtz Zentrum Muenchen in Neuherberg, Germany proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Apollo Sample Curator).	24-Aug-16	31-Oct-21
302	Johnson Space Center (JSC)	Naturhistoriska Riksmuseet	International Lunar Sample Loan Agreement	Project-Specific Agreement (PSA)	Dr. Joshua Snape of Naturhistoriska Riksmuseet in Stockholm, Sweden proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Apollo Sample Curator).	24-Aug-16	31-Oct-21
303	Johnson Space Center (JSC)	Universitat zu Koln	International Lunar Sample Loan Agreement	Project-Specific Agreement (PSA)	Dr. Frank Wombacher of the Universitat zu Koln, in Koln, Germany proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Apollo Sample Curator).	24-Aug-16	31-Oct-21
304	Goddard Space Flight Center (GSFC), Headquarters (HQ)	Japan Aerospace Exploration Agency (JAXA), Mitsubishi Heavy Industries, LTD	Reimbursable Space Act Agreement Between NASA and The Mitsubishi Heavy Industries, LTD. (MHI) for NASA Tracking and Data Relay Satellite System (TDRSS) and Support Of The MHI H-IIA / EMM Launch Vehicle	Project-Specific Agreement (PSA)	This Reimbursable Space Act Agreement (hereinafter referred to as 'Agreement') will be for the purpose of documenting the work to be performed by NASA for the MHI H-IIA/EMM launch, currently scheduled for the summer of 2020. The H-IIA flight plan for this launch requires communication coverage by the NASA TDRSS. MHI will develop the preliminary flight plan in 2016, in order to confirm the compatibility of the EMM requirement to H-IIA with TDRSS. As such, NASA and MHI have agreed on a staged approach for the funding of this work. In the event that the preliminary flight plan determines that there is no compatibility with TDRSS, MHI will terminate this agreement.	2-Sep-16	2-Sep-21
305	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. Dibrugarh University will host a NASA-owned instrument.	7-Sep-16	6-Sep-26
306	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.	16-Sep-16	16-Sep-26

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
307	George C. Marshall Space Flight Center (MSFC)	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)	<p>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.</p> <p>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.</p>	20-Sep-16	20-Sep-34
308	Glenn Research Center at Lewis Field (GRC)	National Centre for Space Studies (CNES)	Amendment 2: Dispositif pur l'Etude de la Croissance et des Liquides Critiques (DECLIC)	Project-Specific Agreement (PSA)	<p>Amendment 2: A second amendment was added to the agreement. This amendment also details the refurbishment and re-launch of the DECLIC hardware and extends the Agreement to December 31, 2024, to enable the completion of the ISS operations for the HTI-R insert which is currently on-orbit and the launch and ISS operations of the DSI-R and ALI-R inserts.</p> <p>The original agreement was amended to include collaboration on upgraded versions of the following three DECLIC inserts: the High Temperature Insert-Reflight (HTI-R), the Directional Solidification Insert-Reflight (DSI-R), and the Alice-Like Insert-Relight (ALI-R).</p> <p>In the original agreement, NASA agreed to provide a launch capability to, and on-orbit accommodations for the DECLIC hardware on the ISS. In addition, CNES received a 12-month on-orbit operational period of utilization by its science investigators and the necessary ISS resources, such as power and crew time.</p>	21-Sep-16	31-Dec-24
309	Goddard Space Flight Center (GSFC)	Italian Space Agency (ASI)	NASA's Swift Gamma Ray Burst Explorer Mission	Project-Specific Agreement (PSA)	<p>The overall scientific objective of the Swift mission is to make a comprehensive study of hundreds of gamma ray burst events in order to determine the origin and physical processes of these phenomena. A Burst Alert Telescope (BAT) shall conduct the initial observations of about one hundred burst events per year.</p>	23-Sep-16	31-Dec-20

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
310	Headquarters (HQ)	Chinese Aeronautical Establishment (CAE)	Memorandum of Understanding (MOU) Between the National Aeronautics and Space Administration and the Chinese Aeronautical Establishment Concerning Cooperation in Air Traffic Management	Project-Specific Agreement (PSA)	<p>The Memorandum of Understanding (MOU) establishes a structure for the Parties to advance air transportation automation for the benefit of the U.S. and Chinese aviation industries operating in China. To achieve this purpose, the Parties agree to undertake cooperative activities to collaborate in the area of air traffic flow management in China. This could provide the highest impact to the system as a whole through research on air traffic management system architecture.</p> <p>The work performed through this activity complements the work being performed by the Airspace Operations and Safety Program within NASA's Aeronautics Research Mission Directorate. NASA will accomplish this work in coordination with U.S. airlines and U.S. industry. It is also highly synergistic with work being performed by CAE and CAE's partners, which include but are not limited to the China Civil Aviation Authority, China Air Traffic Management Bureau, Chinese Airports, and Chinese Airlines. The result of this collaboration will lead to improvements in advanced air transportation automation concepts and technologies, which will be mutually beneficial to both NASA and CAE and their respective additional partners.</p>	27-Sep-16	30-Sep-21
311	Headquarters (HQ)	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)	<p>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.</p> <p>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.</p> <p>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.</p>	30-Sep-16	14-Nov-26
312	JSC White Sands Test Facility (WSTF)	Queensland University of Technology	Amendment 1: Cooperation in Research to Increase Understanding of the Ignition and Combustion of Materials in Elevated Oxygen Conditions in Both Normal Gravity and Reduced Gravity Environments	Project-Specific Agreement (PSA)	Amendment 1: NASA/Queensland University of Technology have a mutual interest in cooperating in research to increase understanding of the ignition and combustion of materials in elevated oxygen conditions in both normal gravity and reduced gravity environments. In particular, the Parties seek to develop models characterizing the ignition and burning of elemental metals and alloys in oxygen-enriched environments. This will help to facilitate safety in space flight activities.	5-Oct-16	25-Jul-21
313	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.	5-Oct-16	4-Oct-26

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
314	Goddard Space Flight Center (GSFC)	Centre National De La Recherche Scientifique, National Centre for Space Studies (CNES), Universite Joseph Fourier a Grenoble	Implementing Arrangement (IA) Between NASA and the Centre National D'etudes Spatiales of France (CNES) on the Space Environment Testbed (SET) Mission	Implementing Arrangement/Agreement (IA)	Implementing Arrangement (IA) Between NASA/CNES as NASA's Science Mission Directorate (SMD) is directing the development of the SET mission, part of the LWS Program. NASA will develop the SET carrier that provides a single interface between SET experiments and a non-NASA host spacecraft. The carrier holds four experiments as follows: the Cosmic Radiation Environment Dosimetry and Charging Experiment (CREDANCE) space weather monitor; the Dosimetry Intercomparison and Miniaturization Experiment (DIME); the Characterization of Proton Effects and Enhanced Low Dose Rate Sensitivity (ELDRS) in Bipolar Junction Transistors; and the Commercial Off-the-Shelf (COTS-2) digital technologies. The primary scientific objectives will be to define space environment effects and degradation mechanisms, reduce uncertainties in the environment and its effects on spacecraft and spacecraft payloads, and improve design and operations guidelines and test protocols to reduce spacecraft anomalies and failures during operations due to environmental effects. The COTS-2 experiment will be used to measure the effects of the space ionizing radiation environment on COTS digital microelectronics devices in order to improve performance prediction in space for future digital devices. CNES will provide for the design and the breadboard fabrication of the COTS-2 digital microelectronics experiment, in collaboration with the French laboratories.	6-Oct-16	31-Dec-20
315	George C. Marshall Space Flight Center (MSFC)	Government of the Italian Republic	Cooperative Agreement with the Italian National Institute for Astrophysics Osservatorio Astronomico di Brera in the Area of X-ray Optics Development	Project-Specific Agreement (PSA)	Cooperative Agreement with the Italian National Institute for Astrophysics Osservatorio Astronomico di Brera in the area of x-ray optics development.	13-Oct-16	30-Sep-20
316	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.	17-Oct-16	20-Oct-30
317	Headquarters (HQ), Jet Propulsion Laboratory (JPL)	The Ministry of Economy and Competiveness of Spain, The Ministry of Industry Energy and Tourism of Spain, The Center for the Development of Industrial Technology, The National Institute for Aerospace	Memorandum of Understanding (MOU): Mars 2020 Mars Environmental Dynamics Analyzer (MEDA) Memorandum of Understanding (MOU)	Project-Specific Agreement (PSA)	Memorandum of Understanding (MOU) between NASA and the Ministry of Economy and Competitiveness of Spain, the Ministry of Industry Energy and Tourism of Spain, the Center for the Development of Industrial Technology, and the National Institute for Aerospace Technology 'Esteban Terradas' of Spain; Concerning the Mars Environmental Dynamics Analyzer Instrument for the Mars 2020 Mission.	25-Oct-16	30-Jun-24
318	George C. Marshall Space Flight Center (MSFC)	Korea Meteorological Administration (KMA)	Agreement Between NASA and the Korea Meteorological Administration (KMA) for Meteorological Research Cooperation the Joint NASA-JAXA Global Precipitation (GPM)	Project-Specific Agreement (PSA)	NASA and the Korea Meteorological Administration will cooperate on ground validation of Global Precipitation Measurement (GPM) mission precipitation estimates and improved understanding of physical processes associated with snow and other forms of frozen and mixed-phase precipitation.	2-Nov-16	2-Nov-21

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
319	Langley Research Center (LaRC)	European Transonic Windtunnel GmbH (ETW)	Agreement Between NASA and the European Transonic Windtunnel GmbH (ETW) on Balance Collaboration Data at the ETW	Implementing Arrangement/Agreement (IA)	The purpose of this collaboration is to document a common understanding for coordination of the Parties' activities to acquire new balance calibration data and compare it with existing calibration data. In 2010, a new model, the common research model was tested in the National Transonic Facility (NTF) with data being obtained at both low and high Reynolds numbers. In 2014, the CRM was also tested at the ETW. As part of the agreement at that time, both sets of data were shared between NTF and ETW. While analyzing this data, both ETW and NTF personnel discovered some unusual differences between the two datasets which led to a more detailed investigation of the data, which included looking at the calibration data of the balance used at NTF and the one used at ETW to determine if the differences may be a result of different balances being used during the two tests. This agreement allows for the balance used in the NTF (the NTF 118A) to have a calibration performed in the ETW automated calibration system which would provide knowledge that could help clarify if the balances were the cause of the differences.	14-Nov-16	31-Dec-20
320	Headquarters (HQ), Jet Propulsion Laboratory (JPL)	Indian Space Research Organization (ISRO)	RapidScat - ScatSat-1	Implementing Arrangement/Agreement (IA)	NASA and Indian Space Research Organization (ISRO) will cooperate on calibration and validation of data from the NASA ISS Rapid Scatterometer and the ISRO ScatSat-1 Scatterometer.	15-Nov-16	15-Nov-21
321	Johnson Space Center (JSC)	Italian Space Agency (ASI)	Reimbursable Space Act Agreement Between NASA and the Italian Space agency (ASI) for Crew Support Services	Project-Specific Agreement (PSA)	Crew support services for ESA Italian Astronaut Paolo Nespoli for his ISS increment flight. these reimbursable services provided by NASA include training crew support services, medical crew support services, administrative and IT services, and Russian training integration instructor services.	17-Nov-16	31-Dec-20
322	Goddard Space Flight Center (GSFC)	National Centre for Space Studies (CNES)	Amendment 4: Solar Terrestrial Relations Observatory (STEREO)	Project-Specific Agreement (PSA)	Amendment 4: The National Centre for Space Studies (CNES) will provide STEREO/Wind/Radio and Plasma Wave Experiment (S/WAVES) instrument suite. Co-Is were selected to provide portions of instruments for SECCHI and IMPACT suites.	30-Nov-16	31-Dec-20
323	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.	30-Nov-16	29-Nov-26
324	All NASA Centers	Canadian Space Agency (CSA)	Amendment and Extension 9: Mars Exploration Program	Project-Specific Agreement (PSA)	Amendment and Extension 9 of an existing Mars cooperation agreement.	9-Dec-16	31-Dec-21
325	Johnson Space Center (JSC)	Plymouth University	International Hayabusa Sample Loan Agreement	Project-Specific Agreement (PSA)	Dr. Natasha Stephen of Plymouth University in Plymouth, UK, proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Hayabusa Sample Curator).	12-Dec-16	12-Dec-21
326	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.	14-Dec-16	31-Dec-40
327	Johnson Space Center (JSC)	Woodside Engineering Technologies PTY LTD.	Reimbursable Space Act Umbrella Agreement Between NASA and Woodside Energy Technologies Pty Ltd. Regarding Anthropomorphic Robotic Systems	Umbrella/Framework Agreement (UM/FW)	NASA will provide reimbursable support to Woodside related to their use of NASA anthropomorphic robotic systems.	14-Dec-16	14-Dec-21
328	Johnson Space Center (JSC)	Woodside Engineering Technologies PTY LTD.	Reimbursable Space Act Agreement: Annex 1: Between NASA and Woodside Energy Technologies Pty Ltd. Regarding Anthropomorphic Robotic Systems	Implementing Arrangement/Agreement (IA)	NASA will deliver a Robonaut 2 system for an initial loan period of one year.	14-Dec-16	14-Dec-21

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
329	Goddard Space Flight Center (GSFC)	Swiss Space Office (SSO)	Solar Terrestrial Relations Observatory (STEREO)	Project-Specific Agreement (PSA)	Dr. Robert Wimmer-Schweingruber selected as Co-I on the PLASMA and SUPRA Thermal Ion Composition (PLASTIC) instrument suite on STEREO.	16-Dec-16	31-Dec-20
330	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.	20-Dec-16	1-Jul-25
331	Goddard Space Flight Center (GSFC)	European Space Agency (ESA)	Amendment 5: Cooperation Under Solar Terrestrial Science Programme (STSP) (CLUSTER I and SOHO)	Project-Specific Agreement (PSA)	Amendment 5: 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.	20-Dec-16	31-Dec-21
332	All NASA Centers	European Space Agency (ESA)	Advanced Telescope for High Energy Astrophysics (ATHENA) X-Ray Astronomy Mission Joint Study	Project-Specific Agreement (PSA)	Joint Study regarding possible NASA participation in ESA's Advanced Telescope for High Energy Astrophysics (ATHENA) X-Ray Astronomy Mission.	20-Dec-16	21-Dec-21
333	Goddard Space Flight Center (GSFC)	German Aerospace Center (DLR)	Amendment: Solar Terrestrial Relations Observatory (STEREO) Mission	Project-Specific Agreement (PSA)	Amendment: STEREO will address the origin, evolution, and interplanetary consequences of Coronal Mass Ejections (CMEs). This is the first program to look at the Sun in three dimensions.	23-Dec-16	31-Dec-20
334	Goddard Space Flight Center (GSFC), Jet Propulsion Laboratory (JPL)	Indian Space Research Organization (ISRO)	GPM-Megha Tropiques Implementing Arrangement (IA) with Indian Space Research Organization (ISRO)	Implementing Arrangement/Agreement (IA)	GPM-Megha Tropiques Implementing Arrangement (IA) under the NASA-ISRO Framework Agreement for cooperation between NASA and the Indian Space Research Organisation (ISRO) on the Global Precipitation Measurement and Megha-Tropiques missions.	26-Dec-16	31-Dec-20
335	Headquarters (HQ), Johnson Space Center (JSC)	Korea Aerospace Research Institute (KARI)	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.	30-Dec-16	31-Dec-23
336	Johnson Space Center (JSC)	University of Lausanne	International Lunar Sample Loan Agreement	Project-Specific Agreement (PSA)	Pierre Vonlanthen of the University of Lausanne proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Apollo Sample Curator).	5-Jan-17	5-Jan-22
337	Johnson Space Center (JSC)	University of Manchester	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Torsten Henkel, UK, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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-Jan-17	5-Jan-22

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
338	Johnson Space Center (JSC)	University Museum of the University of Tokyo	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Takafumi Niihara, Japan, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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-Jan-17	5-Jan-22
339	Johnson Space Center (JSC)	University of Cambridge	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	James Bryson, UK, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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-Jan-17	5-Jan-22
340	Johnson Space Center (JSC)	Centre National De La Recherche Scientifique	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Maud Boyet, France, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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-Jan-17	5-Jan-22
341	Johnson Space Center (JSC)	Museum National d'Histoire Naturelle	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Dr. Brigitte Zanda, France, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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-Jan-17	5-Jan-22
342	George C. Marshall Space Flight Center (MSFC)	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.	18-Jan-17	30-Jun-34
343	George C. Marshall Space Flight Center (MSFC)	Environment Canada	Amendment 3: Cooperation in the Global Precipitation Measurement (GPM) Cold-Season Precipitation Validation Experiment (GCPEX) Project	Project-Specific Agreement (PSA)	Amendment 3: Parties will conduct the project using instrumented NASA DC-8 and NASA-funded University of North Dakota Citation aircraft for flights over ground sites located in and around the Environment Canada Centre for Atmospheric Research Experiments site in Egbert, Ontario. Ground-based equipment to measure precipitation will also be used.	30-Jan-17	31-Jan-22
344	Goddard Space Flight Center (GSFC)	Agentur fur Luft- und Raumfahrt (ALR, Aeronautics and Space Agency), Austrian Space Agency (ASA)	Amendment 4: Temporal History of Events and Macroscale Interactions During Substorms (THEMIS)	Project-Specific Agreement (PSA)	Amendment 4: NASA and the Aeronautics and Space Agency (FFG/ALR) of the 'sterreichische Forschungsf'rdernungsgesellschaft mbH, or Austrian Research Promotion Agency, formerly the Austrian Space Agency (ASA), have been cooperating on the THEMIS mission, which launched on February 17, 2007. This unique constellation of satellites has provided scientists with data to help resolve how Earth's magnetosphere stores and releases energy from the Sun by triggering geomagnetic substorms. THEMIS aims to determine what physical process in near-Earth space initiates the violent eruptions of the aurora that occur during substorms in the Earth's magnetosphere. FFG/ALR is responsible for the development and testing of the Fluxgate Magnetometer Electronics (FGE). THEMIS is a 2-year mission consisting of 5 identical probes that will study the violent colorful eruptions of Auroras. Three of the remaining THEMIS satellites continue to study substorms that are visible in the northern hemisphere as aurora borealis.	2-Feb-17	31-Dec-20

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
345	Goddard Space Flight Center (GSFC)	Agentur für Luft- und Raumfahrt (ALR, Aeronautics and Space Agency), Austrian Space Agency (ASA)	Extension 3: Temporal History of Events and Macroscale Interactions During Substorms (THEMIS)	Project-Specific Agreement (PSA)	Extension 3: NASA and the Aeronautics and Space Agency (FFG/ALR) of the Österreichische Forschungsförderungsgesellschaft mbH, or Austrian Research Promotion Agency, formerly the Austrian Space Agency (ASA), have been cooperating on the THEMIS mission, which launched on February 17, 2007. This unique constellation of satellites has provided scientists with data to help resolve how Earth's magnetosphere stores and releases energy from the Sun by triggering geomagnetic substorms. THEMIS aims to determine what physical process in near-Earth space initiates the violent eruptions of the aurora that occur during substorms in the Earth's magnetosphere. FFG/ALR is responsible for the development and testing of the Fluxgate Magnetometer Electronics (FGE). THEMIS is a 2-year mission consisting of 5 identical probes that will study the violent colorful eruptions of Auroras. Three of the remaining THEMIS satellites continue to study substorms that are visible in the northern hemisphere as aurora borealis.	2-Feb-17	31-Dec-20
346	Headquarters (HQ)	Manila Observatory of the Philippines	Memorandum of Understanding (MOU) Between NASA and the Manila Observatory for Cooperation on the Cloud Aerosol Monsoon Processes Philippines Experiment (CAMP2EX)	Project-Specific Agreement (PSA)	Memorandum of Understanding (MOU): Airborne Science Mission to study influence of natural and anthropogenic aerosol particles on cloud properties and precipitation as well as consequent impact on weather and climate in the Philippines, using the NASA P-3 research aircraft.	3-Feb-17	30-Nov-22
347	Johnson Space Center (JSC)	Canadian Space Agency (CSA)	Implementing Arrangement (IA) Between NASA and Canadian Space Agency (CSA) Concerning the Exchange of Goods and Services in Support of the International Space Station (ISS) Including the Offset of CSA's Responsibility for Common System Operations Costs (CSOC) for 2016-2020	Implementing Arrangement/Agreement (IA)	This Implementing Arrangement (IA) includes a balance exchange of goods and services including Canadian Space Agency's (CSA) offset of Common System Operations Costs (CSOC) and NASA providing crew support services, conditioned stowage and office space.	7-Feb-17	31-Dec-20
348	Headquarters (HQ)	Canadian Space Agency (CSA)	Amendment 2: Implementing Arrangement (IA) Between NASA and Canadian Space Agency (CSA) for Cooperation on the Cloudsat Mission	Implementing Arrangement/Agreement (IA)	Amendment 2: CloudSat improves climate and numerical weather prediction models by validating cloud predictions in these models. The information that CloudSat provides is the vertical distribution of cloud systems, including profiles of ice and water contents. CloudSat provides significantly improved profiles of radiative heating of the atmosphere by clouds. The original agreement was signed on September 14, 2005, to address the development, launch, and initial acquisition and distribution of data. This IA which amends and extends the original agreement commits NASA to continue CloudSat spacecraft operations, including operation of the sole instrument, the jointly developed Cloud Profiling Radar (CPR) and provide scientific data to the Canadian science team. CSA will provide engineering support for the 94 GHz Extended Interaction Klystrons (EIKs) during on-orbit operations of the Cloud Profiling Radar (CPR) and maintain contact with Canadian members of the CloudSat science team, providing support to them for CloudSat science activities, as required.	17-Feb-17	31-Dec-20
349	Jet Propulsion Laboratory (JPL)	European Space Agency (ESA)	Amendment 1: Memorandum of Understanding (MOU) Between NASA and European Space Agency (ESA) Concerning the 2016 ExoMars Mission	Project-Specific Agreement (PSA)	Amendment 1: Memorandum of Understanding (MOU) to allow NASA to provide aerobraking and Deep Space Network (DSN) support to ESA's ExoMars Trace Gas Orbiter (EM/TGO), while allowing EM/TGO to eventually act as a data relay orbiter for NASA's landed Mars assets.	1-Mar-17	31-Dec-23
350	Headquarters (HQ), Wallops Flight Facility (WFF)	National Centre for Space Studies (CNES)	Implementing Arrangement (IA) Between NASA and National Centre for Space Shuttle Studies (CNES) on Cooperation on the Polarized Instrument for Long Wavelength Observation of the Tenuous Interstellar Medium (PILOT) Balloon-Borne Experiment	Implementing Arrangement/Agreement (IA)	NASA and CNES plan to coordinate the use of NASA-operated facilities in Alice Springs. Australia to facilitate a CNES-led ballooning campaign, planned for the 2017 calendar year.	3-Mar-17	3-Mar-21

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
351	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.	20-Mar-17	21-Mar-27
352	Headquarters (HQ), Jet Propulsion Laboratory (JPL)	Italian Space Agency (ASI)	NASA-Italian Space Agency (ASI) Sardinia Radio Telescope Letter of Agreement (LOA)	Project-Specific Agreement (PSA)	This interim Agreement is intended to cover the planned Sardinia Radio Telescope (SRT) modification and mission support activities between NASA and ASI, including tracking and telemetry data acquisition as well as system validation and mission operations. Upon implementation of this Agreement, the Parties' planned cooperation will be further defined in an Implementing Arrangement (IA), under the auspices of the 'Framework Agreement Between the Government of the United States of America and the Government of the Italian Republic for Cooperation in Aeronautics and the Exploration and Use of Outer Space for Peaceful Purposes', which will supersede this agreement.	23-Mar-17	23-Mar-22
353	Headquarters (HQ)	Government of the Russian Federation	Extension 4: Agreement Between the Governments of the United States of America and the Russia Federation Concerning the Procedure for the Customs Documentation and Duty-Free Entry of Goods Transported within the Framework of U.S.-Russian Cooperation in the Exploration and Use of Space for Peaceful Purposes	Umbrella/Framework Agreement (UM/FW)	Extension 4: Diplomatic Note. Extends Agreement for an additional five-year period. Effective date retroactive to Aug 26, 2016, specified in the dip note, extending agreement to Aug 26, 2021. Provides the procedure for customs documentation and duty-free entry of goods transported under agreements entered into under the Agreement between the U.S. and Russia concerning cooperation in the exploration and use of space for peaceful purposes and agreements for cooperation on the International Space Station.	24-Mar-17	26-Aug-21
354	Headquarters (HQ)	LEGO System A/S	Extension 1 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)	Extension 1 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. NASA and LEGO will extend the agreement for an additional five (5) years, as described in the March 30, 2017, letter. The extension will take effect from April 6, 2017, and remain in effect until April 10, 2022. NASA also proposes under the Article that the points of contacts for both NASA and LEGO, 'Management Points of Contact,' be updated and replaced with the following name, Ms. Maureen Ryan O'Brien, Manager, Strategic Alliances.	6-Apr-17	10-Apr-22
355	Goddard Space Flight Center (GSFC)	National Centre for Space Studies (CNES)	Amendment: Implementing Arrangement (IA) Between NASA and the National Centre for Space Studies (CNES) for Cooperation on Global Precipitation Measurement (GPM) and Megha-Tropiques	Implementing Arrangement/Agreement (IA)	Amendment: Implementing Arrangement (IA) to provide data and calibration/validation cooperation between NASA and CNES on the U.S./Japan Global Precipitation Measurement (GPM) mission and French/Indian Megha-Tropiques mission.	21-Apr-17	31-Dec-20
356	Headquarters (HQ)	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.	25-Apr-17	25-Apr-27
357	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.	26-Apr-17	25-Apr-27
358	Headquarters (HQ)	Polar Knowledge Canada (POLAR)	Amendment 1: Agreement Between NASA and Polar Knowledge Canada for Cooperation in the Arctic Boreal Vulnerability Experiment (ABOVE)	Project-Specific Agreement (PSA)	Amendment 1: NASA and Polar Knowledge Canada will cooperate 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.	28-Apr-17	25-May-21

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
359	Jet Propulsion Laboratory (JPL)	German Aerospace Center (DLR)	Amendment 1: Implementing Arrangement (IA) Between NASA and German Aerospace Center (DLR) for Cooperation on the Interior Exploration Using Seismic Investigations, Geodesy, and Heat Transport (InSIGHT) Mission	Implementing Arrangement/Agreement (IA)	Amendment to reflect the InSIGHT mission's new May 2018 launch date. DLR is providing the Heat Flow and Physical Properties Package (HP3) instrument for the NASA InSIGHT mission, slated for launch in 2016.	28-Apr-17	30-Jun-22
360	Langley Research Center (LaRC)	Japan Aerospace Exploration Agency (JAXA)	Amendment: Sonic Boom Research: To Formalize Conducting Research into Methods for Modeling the Response of Residential and Commercial Building Structures to Sonic Boom Disturbances and the Resulting Human Response to the Noise Heard Inside the Structures	Project-Specific Agreement (PSA)	Amendment 3: Parties will research sonic boom variability due to atmospheric turbulence effects and assess the resulting human response to the sonic boom noise. Amendment 2: The purpose of the cooperation is to address the following aspects of sonic boom modeling: advancement of equalization methods for boom simulators; trading data and/or modeling of NASA risk reduction tests and the JAXA Vibro-Acoustic Device; modeling and numerical simulation of the vibro-acoustic response of buildings and building components due to simulated and actual sonic boom exposure (for both laboratory and field test articles); and exchanging recordings of and methods for recording rattle for playback in simulators. In the longer term, NASA and JAXA will investigate the possibility of using each organization's sonic boom simulators to conduct joint studies. The Parties will also consider pursuing future collaboration including investigating the use of boom simulators for evaluation of human response to sonic booms experienced indoors. Amendment 1: The purpose of the cooperation is to address the following aspects of sonic boom modeling: advancement of equalization methods for boom simulators; trading data and/or modeling of NASA risk reduction tests and the JAXA Vibro-Acoustic Device; modeling and numerical simulation of the vibro-acoustic response of buildings and building components due to simulated and actual sonic boom exposure (for both laboratory and field test articles).	28-Apr-17	1-May-22
361	Johnson Space Center (JSC)	Laboratoire de Geologie de Lyon, ENS Lyon/CNRS	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Bernard Bourdon of Laboratoire de Geologie de Lyon, ENS Lyon/CNRS, Lyon cedex, France, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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-May-17	3-May-22
362	Johnson Space Center (JSC)	University of Goettingen	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Andrea Patzer, University of Goettingen, Germany, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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-May-17	3-May-22
363	Johnson Space Center (JSC)	Western University	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Roberta Flemming, Western University, Canada, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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-May-17	3-May-22
364	Johnson Space Center (JSC)	Universita' degli Studi di Padova	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Matteo Massironi of Universita' degli Studi di Padova, Italy, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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-May-17	3-May-22

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
365	Headquarters (HQ)	National Institute of Information and Communications Technology (NICT)	Joint Study Regarding Potential Cooperation Between NASA and the National Institute of Information and Communications Technology (NICT) on Information and Communications Technology	Project-Specific Agreement (PSA)	NASA and NICT have expressed mutual interest in a cooperative agreement that will allow the two agencies to exchange non-ITAR and non-export-controlled meteorological data to perform collaborative analysis and research in the field of free space optical communications with the specific goal to support the joint development of concepts for the CCSDS Magenta Book on Atmospheric Characterization and Forecasting for Optical Link Operations.	23-May-17	23-May-22
366	Jet Propulsion Laboratory (JPL)	Mohammed Bin Rashid Space Centre (MBRSC)	Reimbursable Space Act Agreement Between NASA and the Mohammed Bin Rashid Space Centre (MBRSC) for Deep Space Network (DSN) Support for Emirates Mars Mission	Project-Specific Agreement (PSA)	Provide deep space network (DSN) tracking and associated support in order to enable communications with the United Arab Emirates Space Agency's scientific robotic mission to Mars, named Al-Amal ('Hope'). JPL will assist the MBRSC by providing DSN support and scheduling services to United Arab Emirates Space Agency (UAESA)'s Al-Amal mission in order to further MBRSC's objectives of achieving Earth-to-Mars transfer orbit, cruise to Mars, Mars orbit entry and transfer of the received engineering and science data acquired by the mission's subsystems and science payload.	12-Jun-17	23-May-23
367	Headquarters (HQ)	The Republic of Seychelles	Republic of Seychelles Global Learning and Observations to Benefit the Environment (GLOBE) Cooperation	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.	13-Jun-17	25-Aug-22
368	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.	14-Jun-17	14-Jun-27
369	George C. Marshall Space Flight Center (MSFC), Goddard Space Flight Center (GSFC)	Italian Space Agency (ASI)	Implementing Arrangement (IA) Between NASA and Agenzia 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.	20-Jun-17	1-Dec-26
370	Headquarters (HQ)	Japan Aerospace Exploration Agency (JAXA)	Implementing Arrangement (IA): Agreement Between NASA and the Japan Aerospace Exploration Agency (JAXA) for Cooperation in Sharing of Safety Alert Information	Implementing Arrangement/Agreement (IA)	Implementing Arrangement (IA): Sharing Safety Alert Information between NASA and JAXA.	22-Jun-17	15-Sep-21

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
371	Ames Research Center (ARC)	Korea Aerospace Research Institute (KARI)	Amendment 1: Reimbursable Space Act Agreement Between NASA and the Korean Aerospace Research Institute (KARI) for Participation In The National Aeronautics And Space Administration International Internship Program (NASA I^2)	Project-Specific Agreement (PSA)	Amendment 1: This Amendment and Extension of the NASA-KARI Agreement is facilitating KARI's continued participation in NASA I^2, a project that provides a collaborative environment where U.S. & international interns interact and work together. This Reimbursable Space Act Agreement will be for the purpose of facilitating KARI'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.	23-Jun-17	31-Dec-20
372	Ames Research Center (ARC)	Swedish National Space Board (SNSB)	Amendment 1: Reimbursable Space Act Agreement Between NASA and the Swedish National Space Board (SNSB) for Participation in The National Aeronautics and Space Administration International Internship Program (NASA I^2)	Project-Specific Agreement (PSA)	Amendment 1: This amendment extends the agreement by 3 years and facilitates SNSB's participation in NASA I^2. SNSB 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 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.	26-Jun-17	31-Dec-20
373	Jet Propulsion Laboratory (JPL)	National Centre for Space Studies (CNES)	Amendment 1: Implementing Arrangement (IA) Between NASA and the National Centre for Space Studies (CNES) on the Seismic Experiment for Interior Structure (SEIS) Instrument for the Interior Exploration Using Seismic Investigations, Geodesy, and Heat Transport (InSight) Mission	Implementing Arrangement/Agreement (IA)	Amendment 1 to reflect the InSight mission's new May 2018 launch date. CNES will lead the international consortium providing the SEIS instrument to the InSight mission.	26-Jun-17	31-Dec-22
374	Headquarters (HQ)	Institute of Atmospheric Physics (IAP), as part of the Academy of Sciences of the Czech Republic (ASCR)	Amendment 1: Heliophysics Letter of Agreement (LOA) for Data Sharing with Czech Republic on the Radiation Belt Storm Probe (RBSP) Mission	Project-Specific Agreement (PSA)	Amendment 1: Agreement between NASA and the Institute of Atmospheric Physics (IAP), as part of the Academy of Sciences of the Czech Republic (ASCR), for collaboration in heliophysics and space weather to share data for new NASA missions, in particular the Radiation Belt Storm Probe (RBSP).	30-Jun-17	31-Dec-20
375	Jet Propulsion Laboratory (JPL)	Russian Federal Space Agency (Roskosmos)	Implementing Agreement (IA) Between NASA and the Federal Space Agency, the Russian Federation, on the Russian Dynamic Albedo of Neutrons (DAN) Investigation for the US Mars Science Laboratory (MSL)	Project-Specific Agreement (PSA)	This Implementing Agreement (IA) between the U.S. NASA and the Federal Space Agency, the Russian Federation, on the Russian Dynamic Albedo of Neutrons (DAN) Investigation for the US Mars Science Laboratory (MSL) covers Russian provision of the DAN instrument for the MSL mission.	30-Jun-17	31-Dec-20
376	Jet Propulsion Laboratory (JPL)	Swedish Institute of Space Physics (IRF)	Amendment: Analyzer of Space Plasmas and Energetic Atoms (ASPERA) ASPERA-3 on Mars Express/ASPERA-4 on Venus Express	Project-Specific Agreement (PSA)	This is an amendment and extension of the existing agreement with the Swedish Institute of Space Physics (IRF) for cooperation on the Analyzer of Space Plasmas and Energetic Atoms (ASPERA) version 3. NASA will provide the Electron Spectrometer and a subassembly for the Ion Mass Analyzer Detector, which will be integrated into ASPERA-3. ASPERA-3 will use energetic neutral atom imaging to visualize the charged and neutral gas environments around Mars. Agreement amended to update points of contact and extend until December 31, 2021. Agreement amended to include ASPERA 4 on Venus Express and extend the agreement by 1 additional year.	5-Jul-17	31-Dec-21

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
377	Langley Research Center (LaRC)	German Aerospace Center (DLR)	Amendment 1: Implementing Arrangement (IA) Between NASA and the German Aerospace Center (DLR) for Data Exchange Cooperation Related to the Physical Behavior of Shell Structures	Implementing Arrangement/Agreement (IA)	Amendment 1: The Implementing Arrangement (IA) falls under the DLR Framework Agreement. Cooperation on research related to the development and validation of new analysis-based design methods for buckling critical launch vehicle aerospace structures and exchange data related to the fundamental physical behavior of these structures. NASA will share data results from NASA's Shell Buckling Knockdown Factor Project (SBKF) and DLR will share data results from a Consortium funded by the European Union referred to as, 'New robust DESign Guideline for Imperfection Sensitive Composite Structures (DESICOS). The Parties will communicate at least quarterly, meet at an annual workshop annually, and produce a final report resulting from the cooperation.	10-Jul-17	31-Dec-20
378	Ames Research Center (ARC)	European Space Agency (ESA)	Amendment and Extension 1: Reimbursable Space Act Agreement Between NASA and the European Space Agency (ESA) for Participation in the NASA International Internship (NASA I ²) Program	Project-Specific Agreement (PSA)	Amendment and Extension 1: This Amendment and Extension of the NASA-ESA Agreement is facilitating ESA's continued participation in NASA I ² , a project that provides a collaborative environment where U.S. & international interns interact and work together. This agreement allows ESA to nominate students from ESA Member States for S&T internships at NASA field centers, starting in spring, summer or fall. Interns are to complete a minimum of 10 weeks. ESA will pay a small weekly fee to NASA for each of its interns, to help offset NASA project implementation costs. NASA I ² is a project under the Office of Education's NASA Internships, Fellowships, and Scholarships (NIFS) Line of Business.	13-Jul-17	31-Dec-22
379	Johnson Space Center (JSC)	The University Court of the University of St. Andrews	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Boris C. Laurent of The University Court of the University of St. Andrews in Scotland, UK, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	19-Jul-17	19-Jul-22
380	Johnson Space Center (JSC)	Newcastle University	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Neil Gray of Newcastle University in the UK proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	19-Jul-17	19-Jul-22
381	Johnson Space Center (JSC)	University of Coimbra	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Rui Fausto of the University of Coimbra in Portugal proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	19-Jul-17	19-Jul-22
382	Johnson Space Center (JSC)	Lund University	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Paul Lindgren of Lund University in Lund, Sweden proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	19-Jul-17	19-Jul-22
383	Headquarters (HQ), Jet Propulsion Laboratory (JPL)	Italian Space Agency (ASI)	Implementing Arrangement (IA): NASA - Italian Space Agency (ASI) Cooperation on Interior Exploration using Seismic Investigations, Geodesy and Heat Transport (InSight) Mission	Implementing Arrangement/Agreement (IA)	Implementing Arrangement (IA) under US-Italy Framework. ASI contribution of a laser retro-reflector array to the NASA InSight lander.	20-Jul-17	30-Jun-22
384	Johnson Space Center (JSC)	Institut de Physique du Globe de Paris	International Lunar Sample Loan Agreement	Project-Specific Agreement (PSA)	Prof. Manuel Moreira of the Institut de Physique du Globe de Paris in Paris, France, proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Apollo Sample Curator).	24-Jul-17	31-Oct-22
385	Goddard Space Flight Center (GSFC)	Geoscience Australia	Amendment 4: Space Geodesy: Geodetic Cooperation/Satellite Laser Ranging	Project-Specific Agreement (PSA)	Amendment 4: Loan by NASA to AUSLIG of space geodetic equipment in exchange for data acquired by Geoscience Australia (GA) (formerly AUSLIG) stations.	25-Jul-17	31-Jul-22

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
386	Langley Research Center (LaRC)	Indian Space Research Organisation (ISRO)	Balloon Measurements of the Asian Tropopause Aerosol Layer (BATL) Balloon Campaign	Implementing Arrangement/Agreement (IA)	Balloon measurements of the Asian Tropopause Aerosol Layer (BATL) 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.	31-Jul-17	31-Jul-22
387	Langley Research Center (LaRC)	Japan Aerospace Exploration Agency (JAXA)	Amendment 2: NASA-JAXA Airframe Noise Prediction Agreement	Project-Specific Agreement (PSA)	<p>Amendment 2: The amendment will continue to address key gaps in the understanding and modeling of slat cover noise and extending that knowledge base to realistic slat configurations as well as to noise reduction concepts for slat noise. This cooperative effort will also provide vital data, which will aid the airframe noise research at both organizations and also support the global initiative focused on high fidelity simulations and measurements of airframe noise sources under the AIAA Workshop series on Benchmark Problems for Airframe Noise Computations (BANC).</p> <p>Amendment 1: The National Aeronautics and Space Administration (NASA) and the Japan Aerospace Exploration Agency (JAXA) will conduct research for physics-based prediction of airframe noise from civil aircraft. The primary aim of this activity will be to improve the knowledge of airframe noise sources and corresponding physical mechanisms by working on non-sensitive, fundamental high-lift devices (HLD) and/or landing gear (LG) configurations.</p> <p>NASA/JAXA will conduct research for physics-based prediction of airframe noise from civil aircraft. The primary aim of this activity will be to improve the knowledge of airframe noise sources and corresponding physical mechanisms by working on non-sensitive, fundamental high-lift-devices (HLD) and/or landing gear (LG) configurations.</p>	1-Aug-17	1-Aug-22
388	Goddard Space Flight Center (GSFC)	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.	7-Aug-17	6-Aug-27
389	Johnson Space Center (JSC)	University of Winnipeg	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	PI Edward Cloutis of The University of Winnipeg in Winnipeg, Canada, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by the PI. 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.	18-Aug-17	18-Aug-22
390	Johnson Space Center (JSC)	University of Bern	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	PI Klaus Mezger of the University of Bern in Bern, Switzerland, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by the PI. 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.	18-Aug-17	18-Aug-22
391	Johnson Space Center (JSC)	Cohu Experience Ltd. or Space Nation	Nonreimbursable Space Act Agreement Between NASA and Space Nation for Collaboration on the Space Nation Astronaut Program Mobile Application	Project-Specific Agreement (PSA)	This agreement is for the purpose of facilitating collaboration on the Space Nation Astronaut Program and the Program's mobile application in order to ensure reasonable depictions and references to NASA's civil space missions in the App, specifically the ISS and to facilitate better understanding of NASA's programs and missions by the worldwide public.	18-Aug-17	17-Aug-22
392	Headquarters (HQ)	Japan Aerospace Exploration Agency (JAXA)	Martian Moons eXploration (MMX) Mission	Project-Specific Agreement (PSA)	JAXA and NASA will conduct joint studies for the MMX mission, including science instruments (ie. neutron gamma ray spectrometer), and other contributions like testing or calibration in U.S. facilities.	7-Sep-17	31-Mar-22

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
393	Johnson Space Center (JSC)	Museum National d'Histoire Naturelle	International Stardust Samples Loan Agreement	Project-Specific Agreement (PSA)	Matthieu Gounelle of the Museum National d'Histoire Naturelle (MNHN) in Paris, France, proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Stardust Sample Curator). *NASA Stardust Sample Curator: Michael Zolensky proposed the question concerning traveling with the stardust sample and entering Customs.	13-Sep-17	13-Sep-22
394	Johnson Space Center (JSC)	University of Manchester	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Rhian H. Jones of The University of Manchester in Manchester, U.K., proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	13-Sep-17	13-Sep-22
395	Ames Research Center (ARC)	Japan Aerospace Exploration Agency (JAXA)	Implementing Arrangement (IA): NASA-JAXA Letter of Agreement on the Exchange of Rodent Tissues from ISS Rodent Missions	Implementing Arrangement/Agreement (IA)	Implementing Arrangement (IA): NASA and JAXA both have rodent research programs utilizing the ISS. To maximize this research, NASA and JAXA have agreed to exchange rodent tissues at the discretion of each partner to determine available tissues.	14-Sep-17	31-Dec-20
396	Armstrong Flight Research Center (AFRC)	Space Research Organization of the Netherlands (SRON)	Reimbursable Space Act Agreement Between NASA and the Sron Netherlands Institute for Space Research for Airborne Science Research Using the Spectropolarimeter for Planetary Exploration Airborne Instrument- Space Research Organization of the Netherlands (SRON) SPEX-Airborne Reimbursable Agreement	Project-Specific Agreement (PSA)	Fully reimbursable agreement between NASA and SRON to facilitate operation of the SRON Spectropolarimeter for Planetary Exploration Airborne (SPEX-Airborne) instrument on board the ER-2 to make multi-angle spectro-polarimetric observations that can be used to retrieve aerosol and cloud properties and facilitate the development of a space-borne version of SPEX-Airborne.	20-Sep-17	20-Sep-20
397	Headquarters (HQ)	World Meteorological Organization Global Atmosphere Watch Programme (WMO/GAW)	Global Learning and Observations to Benefit the Environment (GLOBE) Cooperation with the Ministry of Education of the Republic of Liberia	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.	25-Sep-17	25-Sep-22
398	George C. Marshall Space Flight Center (MSFC)	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.	2-Oct-17	2-Oct-27

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
399	Goddard Space Flight Center (GSFC)	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.	3-Oct-17	3-Oct-27
400	Johnson Space Center (JSC)	Sokendai (The Graduate University for Advanced Studies)	International Stardust Samples Loan Agreement	Project-Specific Agreement (PSA)	Mutsumi Komatsu of Sokendai (The Graduate University for Advanced Studies) in Hayama, Kanagawa, Japan, proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Stardust Sample Curator).	5-Oct-17	5-Oct-22
401	Headquarters (HQ), Jet Propulsion Laboratory (JPL)	Italian Space Agency (ASI)	Implementing Arrangement (IA): NASA-Italian Space Agency (ASI) Mars 2020	Implementing Arrangement/Agreement (IA)	Implementing Arrangement (IA) under US-Italy Framework. ASI contribution of a laser retro-reflector array to the NASA Mars 2020 rover.	9-Oct-17	30-Jun-24
402	Glenn Research Center at Lewis Field (GRC)	Italian Center for Aerospace Research (CIRA)	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 Supercooled 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.	12-Oct-17	12-Oct-22
403	Headquarters (HQ), Jet Propulsion Laboratory (JPL)	German Aerospace Center (DLR)	Amendment: Mars Radio Science (MaRS) Experiment Onboard European Space Agency's (ESA) Mars Express Mission	Project-Specific Agreement (PSA)	Amendment: NASA, via U.S. Co-Investigators, will provide the MaRS Experiment for ESA's Mars Express Mission, which will be used to conduct radio science experiments. The ESA Mars Mission was launched on a Soyuz launch vehicle on June 2, 2003. Through an ESA Announcement of Opportunity, 3 co-investigators from Stanford University were selected for the MaRS Experiment, with the Principal Investigator from the University of Cologne. State Dept said no C-175 required on the extension on 7/21/08.	16-Oct-17	31-Dec-21
404	Headquarters (HQ), Jet Propulsion Laboratory (JPL)	German Aerospace Center (DLR)	Amendment: European Space Agency's (ESA) Mars Express Mission - High Resolution Stereo Camera (HRSC)	Project-Specific Agreement (PSA)	Amendment: NASA and DLR on the ESA's Mars Express Mission. The cooperation involves NASA support of U.S. Co-Investigators on the German High Resolution Stereo Camera (HRSC), a Mars Express instrument. State Department said no C-175 required on the extension on 7/21/08.	16-Oct-17	31-Dec-21

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
405	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.	17-Oct-17	26-Feb-43
406	Headquarters (HQ), Jet Propulsion Laboratory (JPL)	European Space Agency (ESA)	NASA-European Space Agency (ESA) ExoMars 2020 Letter of Agreement	Project-Specific Agreement (PSA)	NASA and ESA cooperation on ExoMars 2020 for exchange of technical expertise, scientific collaboration, and deep space network coordination.	18-Oct-17	1-Dec-24
407	Glenn Research Center at Lewis Field (GRC)	University of Southern Queensland	Amendment 1: University of Queensland (UQ) Cavity Optomechanical Magnetometers	Project-Specific Agreement (PSA)	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 ultra-sensitive 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.	18-Oct-17	31-Dec-22
408	Goddard Space Flight Center (GSFC)	Korea Astronomy and Space Science Institute (KASI)	Reimbursable Space Act Agreement Between NASA and the Korea Astronomy and Space Science Institute for Compact Coronagraph Development for the Balloon-Borne Investigation of Temperature and Speed of Electrons in the Corona (BITSE) Technology Demonstration Balloon Flight	Project-Specific Agreement (PSA)	Agreement for reimbursement of NASA's designing, developing, fabricating, testing and delivering compact coronagraph instrumentation for a future joint NASA-KASI Balloon-borne Investigation of Temperature and Speed of Electrons in the Corona (BITSE) mission.	23-Oct-17	31-Dec-20

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
409	Johnson Space Center (JSC)	Earth-Life Science Institute (ELSI)	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Henderson J. Cleaves of the Earth-Life Science Institute (ELSI) in Tokyo, Japan, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	27-Oct-17	27-Oct-22
410	Johnson Space Center (JSC)	Imperial College London	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Mark Rehkamper of the Imperial College in London, UK, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	27-Oct-17	27-Oct-22
411	Goddard Space Flight Center (GSFC)	Deutscher Wetterdienst of the Federal Republic of Germany (German Weather Service)	Agreement Between NASA and Deutscher Wetterdienst (DWD) of the Federal Republic of Germany for Cooperation on the Network for the Detection of Atmospheric Chemical Change	Project-Specific Agreement (PSA)	Agreement Between NASA and Deutscher Wetterdienst (DWD) of the Federal Republic of Germany to cooperate on calibration and validation will sample the stratosphere to detect, measure, and analyze small changes in atmospheric chemistry.	30-Oct-17	30-Oct-22
412	Langley Research Center (LaRC)	German Aerospace Center (DLR)	Implementing Arrangement (IA) Between NASA and the German Aerospace Center for Cooperative Research on Deployable Composite Booms	Implementing Arrangement/Agreement (IA)	This Implementing Arrangement (IA) falls under the DLR Framework Agreement. NASA and DLR are individually pursuing research into the development and validation of thin-shell deployable composite boom structures for future small spacecraft applications and will engage in experimental testing and data exchange cooperation related to the physical behavior of these structures. Cooperation under this IA will advance the fundamental research in this area, enabling each Party to then separately develop specific small spacecraft flight applications.	6-Nov-17	6-Nov-20
413	Langley Research Center (LaRC)	University of Leeds	Reimbursable Space Act Agreement Between NASA and the University of Leeds for the Design, Construction, and Loan of a Diode Laser Hygrometer	Project-Specific Agreement (PSA)	Reimbursable Agreement where NASA will design, build, and loan a Diode Laser Hygrometer to the University of Leeds on a reimbursable basis.	11-Nov-17	11-Nov-27
414	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.	22-Nov-17	31-Mar-27
415	Langley Research Center (LaRC)	National Centre for Space Studies (CNES)	Monitoring of the Evolution and State of Clouds and Aerosol Layers (MESCAL) Mission Pre-Formulation Studies	Implementing Arrangement/Agreement (IA)	NASA and CNES will cooperate on pre-formulation studies for the Monitoring of the Evolution and State of Clouds and Aerosol Layers (MESCAL) Mission.	27-Nov-17	26-Nov-20
416	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.	28-Nov-17	31-Dec-27

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
417	George C. Marshall Space Flight Center (MSFC), Headquarters (HQ), Johnson Space Center (JSC)	John Nurminen Events	Amendment 2: Nonreimbursable Space Act Agreement Between John Nurminen Events (JNE) and NASA for Collaboration on Outreach and Community Endeavors	Project-Specific Agreement (PSA)	Amendment 2: Nonreimbursable Space Act Agreement between John Nurminen Events and NASA for Collaboration on Outreach and Community Endeavors. JNE coordinates with NASA on funds and manages an international traveling space exhibition titled: NASA - A Human Adventure. JNE has authorized use of NASA insignia and loaned artifacts. Amendment: This cooperation specifically facilitates cooperation in J.N. Events' traveling exhibition, 'NASA: A Human Adventure.' J.N. Events pays all costs of developing, transporting and running the exhibit; NASA loans artifacts, advises on use of logo and destinations, and reviews and advises on all content re NASA history. Other = Office of Communications. Nonreimbursable Space Act Agreement between John Nurminen Events and NASA for collaboration on outreach and community endeavors. NASA and John Nurminen Events will collaborate on a traveling exhibition entitled NASA: A Human Adventure. The exhibition will focus on NASA contributions along with illuminating human stories behind the hardware. The exhibition will premier in Europe with the ultimate goal of touring throughout the U.S.	24-Dec-17	31-Dec-22
418	Kennedy Space Center (KSC)	Gilmour Space Technologies	Reimbursable Space Act Umbrella Agreement Between NASA and Gilmour Space Technologies for Research, Technology Development, and Educational Initiatives	Umbrella/Frame work Agreement (UM/FW)	This is an Umbrella Agreement with Annex 1 attached. Annex 1 is for the purpose of conducting research on the performance of Gilmour's water extraction rover and its excavation rover during simulated surface operations, as well as the associated effects of surface environmental conditions on operations and performance. This will help address human exploration requirements for in-situ water recovery and protection/insulation of Martian and Lunar habitats using layers of excavated regolith. Gilmour will operate its rovers in the Kennedy Space Center (KSC) Regolith Test Bed (RTB) for a period of one week. The tests include performance assessments of rover mobility, regolith excavation and water extraction in the controlled environment of the RTB. KSC currently tests NASA excavation rovers in this facility. It is anticipated that future design enhancements of the Gilmour rovers will be evaluated in the RTB under subsequent annexes. Data from the Gilmour tests will allow KSC to compare the performance of alternative rover hardware designs and operational concepts to previous NASA rover experiments in an identical environment.	8-Jan-18	31-Dec-22
419	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 TeTeTtrial 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.	10-Jan-18	31-Dec-22
420	Johnson Space Center (JSC)	University of Manchester	International Stardust Samples Loan Agreement	Project-Specific Agreement (PSA)	Professor Jamie Gilmour of The University of Manchester in Manchester, U.K., proposes to use the Stardust samples to undertake scientific investigations (described in one or more sample requests submitted by the PI to the Stardust Sample Curator at JSC and approved by the Stardust Sample Curator).	11-Jan-18	11-Jan-23

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
421	Headquarters (HQ)	Ministry of Environment	NASA Global Learning and Observations to Benefit the Environment (GLOBE) cooperation the Ministry of Environment of the Republic of Togo	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.	30-Jan-18	21-Dec-00
422	Goddard Space Flight Center (GSFC)	Istituto di Scienze dell'Atmosfera e del Clima (ISAC)	Hydrological Cycle in Mediterranean Experiment (HyMeX)	Project-Specific Agreement (PSA)	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.	2-Feb-18	30-Nov-22
423	Goddard Space Flight Center (GSFC)	Mad Science Group (MSG)	Annex 2: Between NASA and Mad Science Group (MSG) for Cooperation on the Joint Development of Content for the Elementary School Category of the Optimus Prime Spinoff Promotion and Research Challenge (OPSPARC)	Implementing Arrangement/Agreement (IA)	Annex 2: NASA and Mad Science Group (MSG) will cooperate on the joint development of content for the Elementary School Category of Optimus Prime Spinoff Promotion and Research Challenge (OPSPARC) to foster science, technology, engineering, and mathematics (STEM) education and public outreach activities.	7-Feb-18	6-Feb-21
424	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.	12-Feb-18	11-Feb-28
425	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.	22-Feb-18	31-Dec-22
426	George C. Marshall Space Flight Center (MSFC), Johnson Space Center (JSC), Kennedy Space Center (KSC)	Japan Aerospace Exploration Agency (JAXA)	Reimbursable Space Act Agreement Between NASA and the Japan Aerospace Exploration Agency (JAXA) for the Dispenser and Integration Services for the JAXA OMOTENASHI and EQUULEUS Cubesats on NASA's Exploration Mission-1	Project-Specific Agreement (PSA)	NASA will enter into a reimbursable agreement with JAXA to facilitate the provisioning of flight Dispenser hardware and associated mission integration services in support of two JAXA 6U CubeSats (also referred to as 'secondary payloads')- OMOTENASHI and EQUULEUS- scheduled to fly aboard the first uncrewed launch of the fully developed Space Launch System (SLS) and Orion Spacecraft, Exploration Mission 1 (EM-1).	23-Feb-18	23-Feb-21
427	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.	26-Feb-18	26-Feb-28
428	Johnson Space Center (JSC)	Mohammed Bin Rashid Space Centre (MBRSC)	Reimbursable Space Act Agreement Between NASA and the Mohammed Bin Rashid Space Centre (MBRSC) for Support of the United Arab Emirates Astronaut Selection	Project-Specific Agreement (PSA)	The MBRSC has announced their intention to select an Emirati astronaut corps of four astronauts to train and eventually launch to space. They are currently accepting and evaluating applications and will soon begin basic medical and psychometrics testing. The MBRSC has requested support from NASA in the form of expert advice on their plan for astronaut selection, support for a trial-run of their astronaut selection process, and participation in the selection process. NASA shall provide programmatic expertise, expertise in human resources, and medical and psychological expertise, as those subjects pertain to astronaut selection.	27-Feb-18	26-Feb-23
429	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.	27-Feb-18	31-Dec-26

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
430	Johnson Space Center (JSC)	Japan Aerospace Exploration Agency (JAXA)	Amendment 2: Implementing Arrangement (IA): NASA - Japan Aerospace Exploration Agency (JAXA) Reimbursable Agreement for Mouse Habitat Unit Utilization Services for the International Space Station (ISS)	Implementing Arrangement/Agreement (IA)	Amendment 2: Implementing Arrangement (IA): NASA will provide JAXA with pre-flight and post-flight ground services and in-flight transportation services to support the JAXA Mouse Habitat Unit on the ISS. This 2nd amendment adds services for MHU-3 on SpX-14.	27-Feb-18	31-Dec-20
431	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.	1-Mar-18	30-Jan-28
432	Ames Research Center (ARC)	The Office of the Crown Prince of the Hashemite Kingdom of Jordan	Reimbursable Space Act Agreement Between NASA and the Crown Prince Foundation (CPF) of the Hashemite Kingdom of Jordan for Participation in the NASA International Internship Project (NASA I [^] 2)	Project-Specific Agreement (PSA)	This reimbursable Agreement enables Jordan's participation in NASA I [^] 2. NASA will provide a number of evolving internship opportunities that will be offered three times during the calendar year: Spring, Summer, and Fall (referred to as a 'Term'), depending on the Agency's current work and mentor availability. The Crown Prince Foundation (CPF) may provide NASA with a range of 1-10 student nominations per Term, from which NASA will select an intern for the research or project opportunities identified in NASA's online internship application system.	4-Mar-18	31-Dec-23
433	Langley Research Center (LaRC)	University Hospital Southampton NHS Foundation Trust (was The Hospital Trust - Southampton University Hospitals NHS Trust)	Extension 2: Agreement Between NASA and the University Hospital Southampton NHS Foundation Trust (originally The Hospital Trust - Southampton University Hospitals NHS Trust) for the Clinical Testing and Comparison of the Cerebral Cochlear Fluid Pressure (CCFP) and the Ultrasonic Pulsed Phase-Locked Loop (PPLL) for Noninvasive Measurement of Intracranial Pressure	Project-Specific Agreement (PSA)	Extension 2: Continual cooperation on the clinical testing and comparison of Cerebral Cochlear Fluid Pressure (CCFP) and Ultrasonic Pulsed Phase-Locked Loop (PPLL) for Noninvasive Measurement of Intracranial Pressure. NASA proposes also that Article 5 (Management Points of Contact) of the Agreement be revised to reflect the change in NASA's point of contact. Amendment 1: NASA desires to continue this collaboration on a no cost basis with the same terms as the original agreement. NASA proposes the deletion of Article 4-Schedule and Milestones, since the milestones have been met. New Name is: University Hospital Southampton NHS Foundation Trust as of October 1, 2011. NASA/SUHT will undertake the clinical comparison of the Cerebral Cochlear Fluid Pressure (CCFP) and the ultrasonic Pulsed Phase-Locked Loop (PPLL) approaches of noninvasively measuring Intracranial Pressure (ICP), specifically comparing and correlating CCFP and PPLL device responses to changes in ICP. NASA will provide one digital PPLL device and two transducer maintenance and repair. SUHT will perform a human research study using a computer controlled tilt table with both CCFP and PPLL devices to produce the oscillatory changes in ICP in human subjects and patients and will make all study data available through peer reviewed journal articles.	13-Mar-18	31-Oct-20
434	Goddard Space Flight Center (GSFC)	Japan Aerospace Exploration Agency (JAXA)	Space Geodesy: Collaborative Research on the Quasi-Zenith Satellite System (QZSS)	Project-Specific Agreement (PSA)	To cooperate on the use of a Global Navigation Satellite Systems (GNSS) sensor station to provide timely and accurate Earth orientation parameters in the determination of GNSS orbits and assess the value of GNSS and Very Long Baseline Interferometry (VLBI) monitoring stations in the accuracy of all GNSS systems. Both Parties support the collaborative measurement of Earth Orientation.	14-Mar-18	30-Sep-23

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
435	Johnson Space Center (JSC)	European Space Agency (ESA)	NASA-European Space Agency (ESA) International Space Station (ISS) International Space Life Sciences Working Group (ISLSWG) Letter of Agreement for Bed Rest Studies	Implementing Arrangement/Agreement (IA)	A letter agreement under the Arrangement among the ISS partners concerning International Space Life Sciences Flight Experiments on the ISS. This agreement enables collaborative suite of investigations in order to understand the physiological and psychological changes which occur as a result of exposure to reduced gravity environment and to develop countermeasures to be validated on the ISS.	16-Mar-18	31-Dec-20
436	George C. Marshall Space Flight Center (MSFC)	Universite Joseph Fourier a Grenoble	Amendment 1: Agreement Between NASA and the Universite Joseph Fourier, Grenoble of France, for Cooperation in the Hydrological Cycle in Mediterranean Experiment (HyMeX)	Project-Specific Agreement (PSA)	Amendment 1: NASA and the Universite Joseph Fourier, Grenoble of France, will cooperate on hydrological research in support of the Global Precipitation Measurement (GPM) mission.	20-Mar-18	30-Nov-22
437	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.	28-Mar-18	31-Dec-25
438	Ames Research Center (ARC)	German Aerospace Center (DLR)	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 Implementing Arrangement (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 IA 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.	28-Mar-18	28-Mar-21
439	Johnson Space Center (JSC)	Japan Aerospace Exploration Agency (JAXA)	Amendment and Extension 1: Cooperation Between NASA and the Japan Aerospace Exploration Agency (JAXA) on Wind Tunnel Testing in JAXA's High Enthalpy Shock Tunnel (HIEST)	Project-Specific Agreement (PSA)	Amendment and extension 1 of previous cooperation involving use of JAXA's High Enthalpy Shock Tunnel (HIEST) to provide wind tunnel testing on a NASA Apollo-like capsule.	30-Mar-18	31-Mar-21
440	Johnson Space Center (JSC)	Tohoku University	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Yoshihiro Furukawa of Tohoku University in Sendai, Japan, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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-Apr-18	5-Apr-23
441	Johnson Space Center (JSC)	Institut fur Geologie und Mineralogie	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Jens Barosch of the Institute of Geology and Mineralogy in Cologne, Germany, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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-Apr-18	5-Apr-23
442	Johnson Space Center (JSC)	Natural History Museum	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Natasha Almeida of the Natural History Museum in London, UK, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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-Apr-18	5-Apr-23
443	Goddard Space Flight Center (GSFC)	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	6-Apr-18	15-Aug-00
444	Wallops Flight Facility (WFF)	German Aerospace Center (DLR)	Polar Mesosphere Winter Echoes Sounding Rockets Campaign (PMWE)	Implementing Arrangement/Agreement (IA)	Under the Polar Mesosphere Winter Echoes Sounding Rockets Campaign (PMWE) are collaborative sounding rockets activity with DLR covering a 2018 and 2019 campaign.	7-Apr-18	31-Dec-21

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
445	Johnson Space Center (JSC)	Montreal Science Center	International Lunar Sample Loan Agreement (Lunar Sample Display)	Project-Specific Agreement (PSA)	NASA and the Montreal Science Center in Montreal, Canada, enter into an agreement for the loan of a lunar sample display under 70215,395 lunar sample number and weighing 24.880 grams. The sample will be picked up from NASA on 3 April 2018. NASA desires to make certain Lunar samples available to the Institution by entering into this Loan Agreement. The Institution proposes to use these Lunar samples to maximize access to lunar samples and provide opportunities for lunar sample viewing.	9-Apr-18	9-Apr-23
446	Johnson Space Center (JSC)	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.	11-Apr-18	31-Dec-25
447	Johnson Space Center (JSC)	Israel Space Agency (ISA)	Implementing Arrangement (IA) Between NASA and Israel Space 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).	17-Apr-18	17-Apr-26
448	Johnson Space Center (JSC)	Institut d'Astrophysique Spatiale	International Cosmic Dust Samples Loan Agreement	Project-Specific Agreement (PSA)	Zahia Djouadi-Bouali of Institut d'Astrophysique Spatiale in Orsay, France, proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Cosmic Dust Sample Curator).	25-Apr-18	25-Apr-23
449	Johnson Space Center (JSC)	The University of Kent	International Stardust Samples Loan Agreement	Project-Specific Agreement (PSA)	Dr. Penelope Wozniakiewicz of the University of Kent in Kent, UK, proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Stardust Sample Curator).	25-Apr-18	25-Apr-23
450	Johnson Space Center (JSC)	Institut de Planetologie et d'Astrophysique de Grenoble	International Cosmic Dust Samples Loan Agreement	Project-Specific Agreement (PSA)	Lydie Bonal of Institut de Planetologie et d'Astrophysique de Grenoble in Grenoble, France, proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Cosmic Dust Sample Curator).	25-Apr-18	25-Apr-23
451	Johnson Space Center (JSC)	Institut de Planetologie et d'Astrophysique de Grenoble	International Cosmic Dust Samples Loan Agreement	Project-Specific Agreement (PSA)	Eric Quirico of Institut de Planetologie et d'Astrophysique de Grenoble in Grenoble, France, proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Cosmic Dust Sample Curator).	25-Apr-18	25-Apr-23
452	Jet Propulsion Laboratory (JPL)	Italian Space Agency (ASI)	Implementing Arrangement Between NASA and the Italian Space Agency of the Italian Republic for Cooperation on the Sardinia Deep Space Antenna	Implementing Arrangement/Agreement (IA)	The purpose of this Implementing Arrangement is to set forth the respective responsibilities of the Implementing Agencies and the terms and conditions under which NASA and ASI will cooperate on activities related to the Sardinia Deep Space Antenna (SDSA) upgrade and tracking utilization, previously referred to as the Sardinia Radio Telescope (SRT).	9-May-18	9-May-23
453	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.	16-May-18	31-Mar-27

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
454	Johnson Space Center (JSC)	The Museon	International Lunar Sample Loan Agreement (Lunar Sample Display)	Project-Specific Agreement (PSA)	NASA and The Museon in The Hague, The Netherlands, enter into an agreement for the loan of a lunar sample display under 70215,266 lunar sample number and weighing 24.989 grams. The sample will be picked up from NASA on 30 May 2018. NASA desires to make certain Lunar samples available to the Institution by entering into this Loan Agreement. The Institution proposes to use these Lunar samples to maximize access to lunar samples and provide opportunities for lunar sample viewing.	23-May-18	23-May-23
455	Jet Propulsion Laboratory (JPL)	University of Zurich (UZH)	Cooperation on Joint European Airborne Imaging Spectrometer Science Campaign	Project-Specific Agreement (PSA)	Cooperation on Joint European Airborne Imaging Spectrometer Science Campaign: To fly JPL imaging spectrometers on UZH-provided aircraft throughout Europe in the summer of 2018. This agreement allows for multiple flight campaigns.	31-May-18	31-May-23
456	Ames Research Center (ARC)	University of Porto in Portugal	Amendment 1: Agreement Between NASA and University of Porto in Portugal for Cooperation on Airborne Science through Aerial and Underwater Data Collection, Analysis, and Validation	Project-Specific Agreement (PSA)	Amendment 1: NASA and University of Porto in Portugal will cooperate on airborne science through Aerial and underwater data collection, analysis, and Validation.	1-Jun-18	15-Mar-21
457	Marshall Space Flight Center (MSFC)	Japan Aerospace Exploration Agency (JAXA)	Solar Physics Satellite (SOLAR-B) Project/Hinode	Project-Specific Agreement (PSA)	SOLAR-B satellite is a JAXA-led mission in sun-synchronous orbit to study the solar photosphere corona, and transition region. JAXA is responsible for the overall spacecraft and launch, and NASA provided the Focal Plane Package, the stand-alone X-Ray Telescope, and major optical components for the EUV Imaging Spectrometer.	5-Jun-18	10-Jun-25
458	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-Jun-18	30-Jan-31
459	Jet Propulsion Laboratory (JPL)	Old Port of Montreal Corporation Inc.	Cooperative Agreement for the Loan of the Soil Moisture Active Passive (SMAP) 1/3 Scale Model from NASA JPL to the Montreal Science Centre	Project-Specific Agreement (PSA)	JPL is providing the Montreal Science Centre, as a temporary loan, the Soil Moisture Active Passive (SMAP) 1/3 Scale Model for use as a display element in the museum's 'Water in the Universe' exhibit. The property will be on public display from approximately July 15, 2018, until October 15, 2021.	9-Jun-18	31-Dec-21
460	Johnson Space Center (JSC)	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).	19-Jun-18	19-Jun-26
461	Johnson Space Center (JSC)	Centre de Recherches Petrographiques et Geochimiques	International Cosmic Dust Samples Loan Agreement	Project-Specific Agreement (PSA)	Yves Marrocchi of Centre de Recherches Petrographiques et Geochimiques in Nancy, France, proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Cosmic Dust Sample Curator).	22-Jun-18	22-Jun-23
462	Johnson Space Center (JSC)	Max Planck Institute for Chemistry	International Cosmic Dust Samples Loan Agreement	Project-Specific Agreement (PSA)	Peter Hoppe of Max Planck Institute for Chemistry in Mainz, Germany, proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Cosmic Dust Sample Curator).	22-Jun-18	22-Jun-23

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
463	Glenn Research Center at Lewis Field (GRC), Headquarters (HQ), Johnson Space Center (JSC)	European Space Agency (ESA)	Annex 2: Implementing Arrangement (IA) Between NASA and the European Space Agency (ESA) Concerning the Provision by ESA of Elements for NASA's Multi-Purpose Crew Vehicle as a Contribution to the Offset of ESA's Responsibility for International Space Station Common System Operations Costs and to Compensate NASA for Transportation Costs and Other Supporting Services	Implementing Arrangement/Agreement (IA)	Annex 2 covers EM-2 Payment and Technical Discussions for EM-3 and beyond. Barter arrangement. ESA will provide the Service Module (SM) for the Exploration Mission - 1 Multi-Purpose Crew Vehicle (MPCV) as contribution to the offset of ESA's Responsibility for International Space Station common system operations costs and to compensate NASA for transportation costs and other supporting services including TDRSS support and an astronaut ISS increment flight opportunity. Also includes an Annex which lays the groundwork for ESA to also provide the Exploration Mission-2 Service Module and assistance for the Exploration Mission-3 activities.	22-Jun-18	31-Dec-24
464	Johnson Space Center (JSC)	University of Leicester	International Stardust Samples Loan Agreement	Project-Specific Agreement (PSA)	John Bridges of the University of Leicester, in Leicester, U.K., proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Stardust Sample Curator).	22-Jun-18	22-Jun-23
465	Johnson Space Center (JSC)	Max Planck Institute for Chemistry	International Stardust Samples Loan Agreement	Project-Specific Agreement (PSA)	Peter Hoppe of Max Planck Institute for Chemistry in Mainz, Germany, proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Stardust Sample Curator).	22-Jun-18	22-Jun-23
466	Headquarters (HQ)	Ministry of Basic Education of the Republic of Botswana	Global Learning and Observations to Benefit the Environment (GLOBE) Agreement with the Ministry of Education and Skills Development of the Republic of Botswana	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.	26-Jun-18	26-Jun-23
467	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).	29-Jun-18	31-Dec-28
468	Ames Research Center (ARC)	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.	3-Jul-18	31-Dec-23
469	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 Mado 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.	4-Jul-18	31-Jan-28
470	Johnson Space Center (JSC)	University of Manchester	International Lunar Sample Loan Agreement	Project-Specific Agreement (PSA)	Dr. Vera Fernandes of The University of Manchester in Manchester, U.K., proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Apollo Sample Curator).	12-Jul-18	31-Oct-22
471	Johnson Space Center (JSC)	Cardiff University	International Lunar Sample Loan Agreement	Project-Specific Agreement (PSA)	Dr. Marc-Alban Millet of the Cardiff University in Cardiff, U.K., proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Apollo Sample Curator).	12-Jul-18	31-Oct-22
472	Johnson Space Center (JSC)	German Aerospace Center (DLR)	Amendment 1: NASA-German Aerospace Center (DLR) Implementing Arrangement (IA) for the Use of High Definition Earth Viewing Payload (HDEV)	Implementing Arrangement/Agreement (IA)	Amendment 1: NASA and DLR will cooperate on NASA's HDEV Payload. NASA developed the HDEV payload to validate the space-based performance of the cameras in a variety of operating modes to exercise and demonstrate the features and longevity of the commercially available equipment for future International Space Station (ISS) Program use. DLR is interested in utilizing the HDEV Payload for educational purposes with German schools and universities.	20-Jul-18	1-Aug-20

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
473	Goddard Space Flight Center (GSFC)	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 aerosol optical properties and water vapor	24-Jul-18	31-Dec-25
474	Ames Research Center (ARC)	Agencia Espacial Mexicana (AEM)	Amendment 1: 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 1: 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. Original: This agreement enables AEM's participation in the NASA International Internship Program (NASA I^2), designed to provide a collaborative environment where U.S. interns (university undergraduate students) or fellows (university graduate students) can interact and work alongside international peers on research opportunities.	30-Jul-18	31-Dec-23
475	Ames Research Center (ARC)	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.	13-Aug-18	31-Dec-23
476	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.	13-Aug-18	13-Aug-00
477	Johnson Space Center (JSC)	Freie Universitat Berlin	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Timm John of Freie Universitat Berlin in Berlin, Germany, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	14-Aug-18	14-Aug-23
478	Johnson Space Center (JSC)	Hiroshima University	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Dr. Hikaru Yabuta of the Hiroshima University in Hiroshima, Japan, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by the PI. 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.	14-Aug-18	14-Aug-23
479	Johnson Space Center (JSC)	University of Tokyo	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Professor Takafumi Niihara of the School of Engineering, The University of Tokyo, in Tokyo, Japan, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by the PI. These investigations are described in one or more sample requests submitted by the PI to the Antarctic Meteorite Sample Curator.	14-Aug-18	14-Aug-23
480	Goddard Space Flight Center (GSFC)	Korea Astronomy and Space Science Institute (KASI)	Implementing Arrangement (IA) for Cooperation on the Korea Astronomy and Space Science Institute (KASI) Geomagnetic Storm Forecast Model (KFSM)	Implementing Arrangement/Agreement (IA)	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).	14-Aug-18	14-Aug-23
481	George C. Marshall Space Flight Center (MSFC)	Finnish Meteorological Institute (FMI)	Amendment and Extension 1: Global Precipitation Measurement Long-Term Experiment at the Lapland Unified Measurement Site	Project-Specific Agreement (PSA)	Amendment and Extension 1: NASA and the Finnish Meteorological Institute (FMI) will conduct a long-term measurement experiment at the University of Helsinki Hyttiala Station for Measuring Ecosystem - Atmosphere Relations (SMEAR)-II station.	16-Aug-18	31-Aug-23

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
482	Langley Research Center (LaRC)	Korea Institute of Science and Technology (KIST)	Fully Reimbursable Space Act Umbrella Agreement Between NASA and the Korea Institute of Science and Technology (KIST) Regarding 4U Nanomaterial Testing	Umbrella/Frame work Agreement (UM/FW)	Fully Reimbursable Space Act Umbrella Agreement: Test new nanomaterial composites provided by South Korea/Korean Institute of Science and Technology (KIST). KIST is developing lightweight structural, multifunctional composites for extreme environments in aerospace applications. New nanomaterial composites to be fabricated will be ultra lightweight and ultra high strength materials with ultra high electrical conductivity and ultra high thermal conductivity to cover various extreme environmental conditions. All four 'ultra high' aspects will be referred to as '4U.' The purpose of the Initial Annex (Annex 1) is for NASA and KIST to undertake delivery and testing of 4U nanomaterial composites suitable for extreme environments, which can be used for aerospace, automobile, construction, and plant industries.	17-Aug-18	17-Aug-21
483	Headquarters (HQ), Johnson Space Center (JSC)	Chalmers University of Technology	Amendment 2: Chalmers University of Technology Visiting Researchers Agreement (VRA) for Larry Toups	Visiting Researcher Agreement (VRA)	Amendment 2: NASA and Chalmers University of Technology will extend the agreement for an additional three-year period, through September 1, 2021, under the same terms and conditions as the existing Agreement and to update Chalmers' Point of Contact information. This amendment also serves to update the focus of Mr. Toups' research, which will now focus on lunar habitation systems applicable to missions to the Moon (previously his research focused on the broader category of 'long duration space missions'). This includes technologies such as water systems, lightweight materials, and other autonomous and power efficient systems associated with 'smart homes' of the future, directly applicable to future lunar mission concepts (previously 'deep space habitation' concepts).	28-Aug-18	1-Sep-21
484	Ames Research Center (ARC)	Norwegian Space Centre (NSC)	Reimbursable Space Act Agreement Between NASA and the Norwegian Space Center for Participation in the NASA International Internship Project (NASA I ²)	Project-Specific Agreement (PSA)	This Reimbursable Space Act Agreement will be for the purpose of facilitating the Norwegian Space Center's (NSC) participation in the NASA International Internship Project (NASA I ²) which facilitates international collaboration through education and shared experiences in space exploration, science, and aeronautics. Up to a max of 30 Norwegian students may be nominated for competitive internships at NASA field centers in a calendar year. NASA mentors make the final selection of interns.	30-Aug-18	31-Dec-23
485	Ames Research Center (ARC)	National Institute of Higher Education, Research, Science & Technology (NIHERST)	Amendment and Extension 1 of Reimbursable Space Act Agreement Between the National Institute of Higher Education Research, Science & Technology (NIHERST) and NASA for Participation in the NASA International Internship Program (NASA I ²)	Project-Specific Agreement (PSA)	From the Office of STEM Engagement. Amendment and Extension 1: This amendment and extension continues cooperation in NASA I ² until Dec. 31, 2023. Original: This agreement enables NIHERST's participation in the NASA I ² Program, designed to provide a collaborative environment where U.S. interns (university undergraduate students) can interact and work alongside international peers on research opportunities.	3-Sep-18	31-Dec-23
486	Goddard Space Flight Center (GSFC), Jet Propulsion Laboratory (JPL)	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 Hartebeesthoek Radio Astronom Observatory. This agreement establishes one or more permanent GPS ground stations, with the first agreed-upon station to be located at Hartebeesthoek.	12-Sep-18	12-Sep-28

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
487	Kennedy Space Center (KSC)	University of Zurich (UZH)	Nonreimbursable Agreement Between NASA and the University of Zurich to Enable Cooperation on Biological Research Activities	Project-Specific Agreement (PSA)	<p>NASA and the University of Zurich (UZH) have identified a mutual interest in cooperating on multiple biological research activities, including the terrestrial aspects of research utilizing various platforms such as ground-based micro-gravity simulators, parabolic and suborbital flight campaigns, sounding rockets, and the International Space Station (ISS). In particular, NASA and UZH desire to provide support to each other's investigations and work together to develop and propose new investigations.</p> <p>The current investigations involve studying the epigenetic control of gene expression in altered gravity. UZH has three experiments in this area, one to be conducted on ISS, one on a sounding rocket in Sweden in summer 2018, and last to be conducted on parabolic flights in Switzerland in summer 2018. NASA is also conducting similar research in its microgravity simulators.</p> <p>This Agreement also shall allow the Parties to identify and conduct additional research activities similar to the above investigations.</p> <p>The specific scope of cooperation under this Agreement involves sharing data, expertise and test samples. Exchange of hardware, commitment to fund future investigations, or providing access to particular NASA facilities are beyond the scope of this Agreement.</p>	14-Sep-18	30-Sep-23
488	Langley Research Center (LaRC)	Delft University of Technology (DUT)	Extension 1: Agreement Between the National Aeronautics and Space Administration and the Delft University of Technology (TUDelft) for the Advancement of Composite Aerospace Shell Structures for the Advancement of Composite Aerospace Structures	Project-Specific Agreement (PSA)	<p>Extension 1: Conduct joint structural testing of NASA and partner composite shell structures.</p> <p>NASA and TUDelft will each develop advanced composite aerospace structural test articles and test the materials in their respective facilities.</p>	17-Sep-18	30-Sep-20
489	Johnson Space Center (JSC)	University of Munster	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	<p>Gregory Brenneka of the University of Munster in Munster, Germany, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by the PI. 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.</p>	18-Sep-18	18-Sep-23
490	Goddard Space Flight Center (GSFC)	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)	<p>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.</p>	19-Sep-18	19-Sep-28
491	Johnson Space Center (JSC)	University of Lille 1	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	<p>Hugues Leroux of Unite Matériaux et Transformations, Université de Lille in Villeneuve d'Ascq, France, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by the PI. 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.</p>	25-Sep-18	25-Sep-23

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
492	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.	25-Sep-18	25-Sep-28
493	Johnson Space Center (JSC)	University of Manchester	International Stardust Samples Loan Agreement	Project-Specific Agreement (PSA)	Ian C. Lyon of The University of Manchester in Manchester, U.K., proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Stardust Sample Curator).	28-Sep-18	28-Sep-23
494	Goddard Space Flight Center (GSFC)	Korea Astronomy and Space Science Institute (KASI)	Implementing Arrangement (IA) for Cooperation on the Balloon-Borne Investigation of Temperature and Speed of Electrons in the Corona (BITSE)	Implementing Arrangement/Agreement (IA)	Implementing Arrangement (IA) for cooperation on development and execution of technology demonstration balloon flight for a compact coronagraph instrument. Projected 2019 launch.	28-Sep-18	31-Dec-24
495	Johnson Space Center (JSC)	Tohoku University	International Stardust Samples Loan Agreement	Project-Specific Agreement (PSA)	Tomoki Nakamura of Tohoku University in Sendai, Japan, proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Stardust Sample Curator).	28-Sep-18	28-Sep-23
496	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.	2-Oct-18	2-Oct-29
497	Goddard Space Flight Center (GSFC), Jet Propulsion Laboratory (JPL)	Israel Space Agency (ISA)	Implementing Arrangement (IA) Between NASA and the Israel Space Agency for Cooperation on the SpaceIL Lunar Mission	Implementing Arrangement/Agreement (IA)	This is a SMD and HEOMD agreement and an Implementing Arrangement (IA) under a US-Israel Framework. NASA will contribute a laser retroreflector array (LRA) and Deep Space Network (DSN) support to the SpaceIL lunar lander. SpaceIL, through the Israel Space Agency, will contribute science data to NASA.	3-Oct-18	3-Oct-22
498	Goddard Space Flight Center (GSFC)	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.	8-Oct-18	8-Oct-28
499	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.	9-Oct-18	9-Oct-28
500	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.	11-Oct-18	26-Feb-43
501	Johnson Space Center (JSC)	Agricultural University of Athens	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Ioannis Baziotis of Agricultural University of Athens in Athens, Greece, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	16-Oct-18	16-Oct-23

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
502	Johnson Space Center (JSC)	National Space Centre	International Lunar Sample Loan Agreement (Lunar Sample Display)	Project-Specific Agreement (PSA)	NASA and the National Space Centre in Leicester, England, enter into an agreement for the loan of a lunar sample display under 74255,14 and weighs 67.553 grams. NASA desires to make certain Lunar samples available to the Institution by entering into this Loan Agreement. The Institution proposes to use these Lunar samples to maximize access to lunar samples and provide opportunities for lunar sample viewing.	23-Oct-18	23-Oct-23
503	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.	24-Oct-18	24-Oct-28
504	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).	1-Nov-18	28-Oct-28
505	Johnson Space Center (JSC)	Institute for Geochemistry & Petrology	International Stardust Samples Loan Agreement	Project-Specific Agreement (PSA)	Henner Busemann of the Institute for Geochemistry & Petrology in Zurich, Switzerland, proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Stardust Sample Curator).	7-Nov-18	7-Nov-23
506	Johnson Space Center (JSC)	Institute for Geochemistry & Petrology	International Cosmic Dust Samples Loan Agreement	Project-Specific Agreement (PSA)	Henner Busemann of the Institute for Geochemistry and Petrology in Zurich, Switzerland, proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Cosmic Dust Sample Curator).	7-Nov-18	7-Nov-23
507	Johnson Space Center (JSC)	Institut für Mineralogie, Univ. Münster	International Cosmic Dust Samples Loan Agreement	Project-Specific Agreement (PSA)	Christian Vollmer of the Institute for Mineralogy, University of Münster, proposes to use the samples to undertake scientific investigations (described in a sample request submitted by the PI to the Cosmic Dust Sample Curator).	7-Nov-18	7-Nov-23
508	Jet Propulsion Laboratory (JPL)	German Aerospace Center (DLR)	Amendment and Extension 2: NASA-German Aerospace Center (DLR) Letter of Agreement (LOA) for Cooperation on Radiation Assessment Detector (RAD) on the NASA Mars Science Laboratory (MSL) Mission	Project-Specific Agreement (PSA)	Amendment and Extension 2: Letter of Agreement (LOA) for collaboration between NASA and the German Aerospace Center (DLR) on NASA's Mars Science Laboratory (MSL) Mission. This involves the provision of components of the Radiation Assessment Detector (RAD) Instrument. The instrument will characterize the broad spectrum of radiation at the surface of Mars, an essential precursor to human exploration of the planet. December 31, 2018, is the new expiration date. Amendment and Extension 1: Letter of Agreement (LOA) for collaboration between NASA and the German Aerospace Center (DLR) on NASA's Mars Science Laboratory (MSL) Mission. This involves the provision of components of the Radiation Assessment Detector (RAD) Instrument. The instrument will characterize the broad spectrum of radiation at the surface of Mars, an essential precursor to human exploration of the planet. December 31, 2018, is the new expiration date.	14-Nov-18	31-Dec-22
509	Goddard Space Flight Center (GSFC)	Danish Technical University of Denmark	Agreement Between The National Aeronautics and Space Administration of the United States of America And The Danish Technical University Of Denmark For Cooperation On The Global Ecosystem Dynamics Investigation Project	Project-Specific Agreement (PSA)	Collaboration on the Engineering Model hardware of the Star Tracker System for the Global Ecosystem Dynamics Investigation (GEDI) Project.	19-Nov-18	19-Nov-23

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
510	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.	26-Nov-18	22-Sep-00
511	Goddard Space Flight Center (GSFC)	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.	28-Nov-18	6-Feb-27
512	Jet Propulsion Laboratory (JPL)	Swiss Federal Institute of Technology Zurich of the Swiss Confederation (ETH-Zurich)	NASA-the Swiss Federal Institute of Technology - Zurich (ETHZ), represented by Prof. Domenico Giardini, Institute of Geophysics, InSight Agreement	Project-Specific Agreement (PSA)	NASA-the Swiss Federal Institute of Technology - Zurich (ETHZ), represented by Prof. Domenico Giardini, Institute of Geophysics, InSight Agreement: ETHZ is providing electronic components on the CNES-led Seismic Experiment for Interior Structure (SEIS) instrument for the NASA-led Interior Exploration using Seismic Investigations, Geodesy, and Heat Transport (InSight) mission.	29-Nov-18	31-Dec-22
513	Ames Research Center (ARC), George C. Marshall Space Flight Center (MSFC)	Fundacao Para a Ciencia e a Tecnologia (Foundation for Science and Technology) (FCT)	Amendment 1: Reimbursable Space Act Agreement Between NASA and the Foundation for Science and Technology and the Ministry of Science, Technology and Higher Education of Portugal for Participation in the NASA International Internship Program (NASA I ^{^2})	Project-Specific Agreement (PSA)	Amendment 1: This amendment + agreement enables Portugal's participation in the NASA International Internship Project ('NASA I ^{^2} '). NASA I ^{^2} is designed to provide a collaborative environment for U.S. and Portuguese interns to interact and work alongside each other on research opportunities. NASA internship sessions are arranged in three Terms during the calendar year (Spring, Summer, and Fall Terms). NASA Centers: Agency-wide, beginning with ARC, MSFC. This Reimbursable Space Act Agreement enables Portugal's participation in the NASA International Internship Program (hereinafter referred to as 'NASA I ^{^2} '). NASA I ^{^2} is designed to provide a collaborative environment for U.S. and Portuguese interns (university undergraduate level students) or fellows (university graduate level students) to interact and work alongside each other on research opportunities. NASA internship and fellowship sessions are arranged in three Terms during the calendar year (Spring, Summer, and Fall Terms).	10-Dec-18	31-Dec-24
514	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).	11-Dec-18	31-Mar-27
515	Headquarters (HQ)	The National Institute of Environmental Research of the Republic of Korea (NIER)	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)	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.	11-Dec-18	11-Dec-23

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
516	George C. Marshall Space Flight Center (MSFC)	European Space Agency (ESA)	Reimbursable Agreement Between The National Aeronautics and Space Administration of the United States of America and The European Space Agency for WEGA-E Engine Thrust Chamber Assembly LOX/Methane Tests	Project-Specific Agreement (PSA)	Reimbursable agreement for testing of ESA's VEGA-Evolution (VEGA-E) Thrust Chamber Assembly (TCA).	12-Dec-18	12-Dec-20
517	Headquarters (HQ), Jet Propulsion Laboratory (JPL)	European Space Agency (ESA)	Extension 3: NASA-European Space Agency (ESA) Cooperation on the Mars Express Mission	Project-Specific Agreement (PSA)	<p>Extension 3: 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.</p> <p>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.</p>	17-Dec-18	31-Dec-23
518	Jet Propulsion Laboratory (JPL)	University of Zurich (UZH)	Reimbursable Space Act Agreement Between NASA and the University of Zurich (UZH) for UZH High-Fidelity Compact Wide Imaging Spectrometer Development	Project-Specific Agreement (PSA)	NASA-the University of Zurich (UZH) Reimbursable Space Act Agreement for UZH High-Fidelity Compact Wide Imaging Spectrometer Development: On a reimbursable basis, NASA will provide 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. This will be a fully functional scientific instrument to be used in future remote measurement research activities, including potential collaborative scientific research with JPL and other NASA centers.	17-Dec-18	17-Dec-21
519	Goddard Space Flight Center (GSFC)		Implementing Arrangement between NASA and Korea Water Resources Corporation (K-Water) for Cooperation on Drought and Flood Analysis and Prediction in Asia/Korea using the NASA Land Information System (LIS)	Implementing Arrangement/Agreement (IA)	Cooperation on drought and flood analysis with K-Water under the 2016 U.S.-ROK Framework Agreement	19-Dec-18	19-Dec-24
520	Headquarters (HQ), Jet Propulsion Laboratory (JPL)	National Centre for Space Studies (CNES)	Extension 4: Spectroscopic Investigation of the Characteristics of the Atmosphere of Mars (SPICAM) on Mars Express	Project-Specific Agreement (PSA)	<p>Extension 4: NASA support for US Co-I on French-built SPICAM instrument on ESA Mars Express mission. SPICAM is part of the Mars Express orbiter.</p> <p>Amendment 3: NASA support for U.S. Co-I on French-built the SPICAM instrument on ESA Mars Express Mission. SPICAM is part of the Mars Express orbiter.</p>	20-Dec-18	31-Dec-20
521	Johnson Space Center (JSC)	Kitakyushu City	International Lunar Sample Loan Agreement (Lunar Sample Display)	Project-Specific Agreement (PSA)	NASA and Kitakyushu City in Kitakyushu, Japan, enter into an agreement for the loan of a lunar sample display under 12006,1 and weighs 176.383 grams. The sample will be picked up from NASA on 13 December 2018 (see JSC Public Affairs specialist e-mail on dates). NASA desires to make certain Lunar samples available to the Institution by entering into this Loan Agreement. The Institution proposes to use these Lunar samples to maximize access to lunar samples and provide opportunities for lunar sample viewing.	5-Feb-19	31-Jul-23
522	George C. Marshall Space Flight Center (MSFC)		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 LAUNCH OF THE ARGOMOON CUBESAT ON EXPLORATION MISSION 1	Implementing Arrangement/Agreement (IA)	NASA will launch ASI's ArgoMoon CubeSat on EM-1 in exchange for resulting data/images collected by the satellite.	6-Feb-19	6-Feb-24

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
523	Goddard Space Flight Center (GSFC)	Indian Space Research Organization (ISRO)	Chandrayaan-2 Laser Retroreflector Array (LRA)	Implementing Arrangement/Agreement (IA)	NASA will provide a Laser Retroreflector Array (LRA) which will be mounted to the Chandrayaan-2 Vikram Lander for laser ranging to the LRA from orbit with orbiting laser altimeters, such as the Lunar Orbiter Laser Altimeter (LOLA) on the Lunar Reconnaissance Orbiter (LRO).	11-Feb-19	11-Feb-25
524	Johnson Space Center (JSC)	Domaine Universitaire	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Lydie Bonal (PI) of Domaine Universitaire in St-Martin d'Herès, France, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	19-Feb-19	19-Feb-24
525	Johnson Space Center (JSC)	Institute for Geochemistry & Petrology	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Henner Busemann (PI) of the Institute for Geochemistry & Petrology, in Zurich, Switzerland, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	19-Feb-19	19-Feb-24
526	Johnson Space Center (JSC)	University of London	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Ian C. Crawford (PI) of the University of London in London, U.K., proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	19-Feb-19	19-Feb-24
527	Johnson Space Center (JSC)	Max Planck Institute for Chemistry	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Peter Hoppe (PI) of Max Planck Institute for Chemistry in Mainz, Germany, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	19-Feb-19	19-Feb-24
528	Johnson Space Center (JSC)	Ibaraki University	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Ko Hashizume (PI) of Ibaraki University in Mito, Ibaraki, Japan, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	19-Feb-19	19-Feb-24
529	Johnson Space Center (JSC)	University of Alberta	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Christopher Herd of the University of Alberta, Edmonton, AB, Canada, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	27-Feb-19	27-Feb-24
530	Johnson Space Center (JSC)	Institut de Planetologie et d'Astrophysique de Grenoble	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Pierre Beck of the Institut de Planetologie et d'Astrophysique de Grenoble (IPAG) in France, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	27-Feb-19	27-Feb-24
531	Johnson Space Center (JSC)	The Open University	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	S. P. Schwenzer of The Open University in Milton Keynes, United Kingdom, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	27-Feb-19	27-Feb-24

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
532	Johnson Space Center (JSC)	Universitat Bayreuth	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Audrey Bouvier of the Universitat Bayreuth in 95447 Bayreuth, Germany, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	27-Feb-19	27-Feb-24
533	Johnson Space Center (JSC)	the Natural History Museum	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Ashley King of The Natural History Museum in London, United Kingdom, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	27-Feb-19	27-Feb-24
534	Johnson Space Center (JSC)	Wilhelms-Universitat	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Addi Bischoff of Wilhelms-University of Munster in Munster, Germany, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	27-Feb-19	27-Feb-24
535	Johnson Space Center (JSC)	University of Munster	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Thorsten Kleine, University of Muenster in Munster, Germany, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	27-Feb-19	27-Feb-24
536	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.	4-Mar-19	4-Mar-59
537	Johnson Space Center (JSC)	Hokkaido University (HokuDai)	International Genesis Sample Loan Agreement	Project-Specific Agreement (PSA)	Hisayoshi Yurimoto of Hokkaido University in Sapporo, Japan, proposes to use the Genesis samples to undertake scientific investigations (described in one or more sample requests submitted by the PI to the Genesis Sample Curator at JSC and approved by the Genesis Sample Curator).	12-Mar-19	12-Mar-24
538	George C. Marshall Space Flight Center (MSFC)	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.	18-Mar-19	31-Dec-25

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
539	Headquarters (HQ)	LEGO System A/S	Annex 3 - to the Non-Reimbursable Space Act Umbrella Agreement with LEGO System A/S of Denmark	Project-Specific Agreement (PSA)	<p>Annex 3: NASA will assist LEGO in their development of space themed LEGO sets for 2019. In this context, NASA and LEGO will engage in discussions re. space themes and stories that are the basis for LEGO's product development, manufacturing, marketing communications and campaigns. The project aims to inspire children around the world to get engaged with STEM and the prospect of space exploration through play and creative story telling while, to the greatest extent possible, remaining true to NASA technology and careers. NASA will provide LEGO City with access to assets and resources to assist LEGO in its product development, including the related product marketing, advertising and communications campaigns.</p> <p>LEGO wishes to further this partnership with NASA to bring to life even more of the stories, careers, technology and science behind the various endeavors surrounding missions into space and more specifically, the aspirations of the Mars Mission. It is the wish of both parties for NASA to provide LEGO with a great link to reality and Science Technology Engineering and Mathematics ('STEM') education by assisting LEGO in telling the stories of the men and women who make space travel possible.</p>	25-Mar-19	31-Dec-20
540	Ames Research Center (ARC)		VRA between NASA and POSTECH	Visiting Researcher Agreement (VRA)	<p>The Visiting Researcher has expertise in device modeling and simulation, which can be used to analyze all modern electronics devices, including nano-electronics devices. He has used most commercial software commonly used across the world and knows how to consider special effects necessary when the devices become ultra-small. The Visiting Researcher is also an expert in nano-device fabrication, particularly, lithography, implantation, and etching, with a focus on small feature scale devices for a wide range of non-traditional applications, such as energy generation, photodetectors, optoelectronics and others. The Visiting Researcher's areas of expertise are complementary to the ongoing research activities at the NASA Ames Research Center for Nanotechnology, which is looking to improve its expertise in modeling or ultra-small scale device fabrication. The Visiting Researcher will model the current generation commercial devices in terms of assessing their reliability and how they will survive radiation effects. He will also help to develop processes for fabricating small feature scale devices on flexible substrates, which is an emerging area that includes sensors, antennas, energy generation and storage devices. The Visiting Researcher's expertise in all of these areas uniquely qualify him and results in a mutually beneficial collaboration. However, the Visiting Researcher shall specifically not be allowed to work on nano-vacuum electronics, or nano-vacuum channel transist</p>	8-Apr-19	31-Dec-20
541	Johnson Space Center (JSC)	University of Glasgow	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	<p>Martin Lee of the University of Glasgow in Lilybank Gardens, Glasgow, United Kingdom, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.</p>	12-Apr-19	12-Apr-24
542	Johnson Space Center (JSC)	University of Bristol	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	<p>Tim Tomkinson of the University of Bristol in Clifton, Bristol, United Kingdom, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.</p>	12-Apr-19	12-Apr-24

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
543	Johnson Space Center (JSC)	Lund University	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Carl Alwmark of Lund University in Lund, Sweden, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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-Apr-19	12-Apr-24
544	Johnson Space Center (JSC)	Universite Joseph Fourier a Grenoble	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Eric Quirico of CNRS/Universite Joseph Fourier in Grenoble, France, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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-Apr-19	12-Apr-24
545	Ames Research Center (ARC)	Center for Astrobiology (CAB)	Life-Detection Mars Analog Project (LMAP)	Project-Specific Agreement (PSA)	Life-Detection Mars Analog Project (LMAP) will demonstrate the feasibility of drilling missions on Mars in support of the search for life on the planet.	12-Apr-19	31-Mar-21
546	Johnson Space Center (JSC)	Institut Universitaire Europeen de la Mer	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Jean-Alix Barrat of the Institut Universitaire Europeen de la Mer in Plouzane Cedex, France, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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-Apr-19	12-Apr-24
547	Johnson Space Center (JSC)	University of Manchester	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Katherine Joy of the University of Manchester in Manchester, United Kingdom, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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-Apr-19	12-Apr-24
548	Johnson Space Center (JSC)	University of Tokyo	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Takashi Mikouchi of the University of Tokyo in Tokyo, Japan, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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-Apr-19	12-Apr-24
549	Johnson Space Center (JSC)	National Institute of Polar Research (NIPR)	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Naoya Imae of the National Institute of Polar Research in Tokyo, Japan, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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-Apr-19	12-Apr-24
550	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).	16-Apr-19	16-Apr-29
551	George C. Marshall Space Flight Center (MSFC)		Reimbursable Space Act Agreement Between The National Aeronautics And Space Administration (NASA) And The Italian Space Agency (ASI) For The Dispenser And Integration Services For The ASI ArgoMoon CubeSat On NASA's Exploration Mission-1	Project-Specific Agreement (PSA)	NASA to provide cubesat dispenser and integration services to ASI on a reimbursable basis for the launch of their ArgoMoon CubeSat on NASA's EM-1 (as a secondary payload on SLS). A separate IA was signed for the flight of the CubeSat.	18-Apr-19	6-Feb-24

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
552	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.	25-Apr-19	25-Apr-24
553	Jet Propulsion Laboratory (JPL)	Indian Space Research Organization (ISRO)	Chandrayaan-2 Deep Space Network (DSN) support, amendment for Entry, Descent, Landing (EDL) support	Project-Specific Agreement (PSA)	Scope of work is increased to include a NASA review of the Chandrayaan-2 mission Entry, Descent, and Landing (EDL) process.	26-Apr-19	7-Nov-20
554	Jet Propulsion Laboratory (JPL)	King's College London	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.	29-Apr-19	29-Apr-24
555	Goddard Space Flight Center (GSFC)	National University of San Agustin (UNSA)	Extension 3: Space Geodesy: Satellite Laser Ranging (SLR)	Project-Specific Agreement (PSA)	Extension 3: NASA/Universidad Nacional de San Agustin (UNSA) will cooperate on the operation of a satellite laser tracking station at the National University of San Agustin (UNSA) Geophysical Institute at Characato in Arequipa, Peru. Extension 2: Cooperating Agency: Universidad Nacional de San Agustin (Peru) - to operate a satellite laser tracking station at the National University of San Agustin (UNSA) Geophysical Institute at Characato in Arequipa, Peru.	30-Apr-19	25-Oct-24
556	Johnson Space Center (JSC)	Curtin University of Technology	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Gretchen K. Benedix of Curtin University in Perth, Western Australia, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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-May-19	10-May-24
557	Johnson Space Center (JSC)	Curtin University of Technology	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Philip Bland of Curtin University in Perth, Western Australia, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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-May-19	10-May-24
558	Johnson Space Center (JSC)	Westfälische Wilhelms-Universität Münster	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Andreas Stracke of Westfälische Wilhelms-Universität in Münster, Germany, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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-May-19	10-May-24

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
559	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.	21-May-19	31-Dec-29
560	Johnson Space Center (JSC)	Chiba Institute of Technology	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Tomoko Arai of Chiba Institute of Technology in Narashino, Chiba, Japan, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	29-May-19	29-May-24
561	Johnson Space Center (JSC)	Vrije University Brussels (VUB)	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Seann J. McKibbin of Vrije Universiteit in Brussels, Belgium, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	29-May-19	29-May-24
562	Johnson Space Center (JSC)	National Institute of Polar Research (NIPR)	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Akira Yamaguchi of National Institute of Polar Research in Tokyo, Japan, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	29-May-19	29-May-24
563	Johnson Space Center (JSC)	Curtin University of Technology	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Fred Jourdan of Curtin University in Bentley, Australia, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	29-May-19	29-May-24
564	Johnson Space Center (JSC)	Physical Research Laboratory (PRL)	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Dwijesh Ray of Physical Research Laboratory in Ahmedabad, India, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	29-May-19	29-May-24
565	Glenn Research Center at Lewis Field (GRC)		Agreement Between the National Aeronautics and Space Administration of the United States of America and the Office National d'Etudes et de Recherches Aérospatiales on 3D Tool Development	Project-Specific Agreement (PSA)	NASA and ONERA share a mutual desire to better understand the risks associated with aircraft operating in conditions with high concentrations of ice crystals, where ice accretion may occur on warm parts of the engine core, resulting in adverse engine performance. NASA's Glenn Research Center conducts icing research through the development of tools and methods for evaluating and simulating the growth of ice on aircraft surfaces or engines and the effects that ice may have on the behavior of aircraft in flight. ONERA, through its participation in the European Commission funded MULTidisciplinary tools for the Simulation of In-flight iCing due to High Altitude Ice Crystals (MUSIC-HAIC) project, will engage in ice crystal icing model development and testing. Under this Agreement, NASA will provide ONERA with publically available data obtained through NASA's icing tests. ONERA will likewise provide publically available data to NASA generated through the MUSIC-HAIC project, and additional experimental data subject to the concurrence of the MUSIC-HAIC partners. Additionally, NASA and ONERA will jointly benchmark their respective icing tools and methodologies. The data exchanged under this cooperation will enable both NASA and ONERA to advance, independently, their respective 3D icing tools.	19-Jun-19	19-Jun-23

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
566	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-Jul-19	12-Jul-21
567	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.	12-Jul-19	12-Jul-29
568	Goddard Space Flight Center (GSFC)		Reimbursable Space Act Agreement Between the National Aeronautics and Space Administration (NASA) and the European Space Agency (ESA) for Use of NASA's Space Network In Support of Ariane 6 Launches for ESA	Project-Specific Agreement (PSA)	Reimbursable Agreement between NASA and ESA for the use of NASA's Space Network (SN) Tracking and Data Relay Satellite (TDRS) in support of telemetry data independent of the Telemetry Ground Stations for the Ariane 6 Launch Systems (Ariane 6).	16-Jul-19	16-Jul-24
569	Ames Research Center (ARC)	Canadian Space Agency (CSA)	Reimbursable SAA Between the Canadian Space Agency (CSA) and NASA for Participation in the NASA International Internship Project	Project-Specific Agreement (PSA)	Participating in the NASA International Internship (NASA I2 Project)	17-Jul-19	31-Dec-24
570	Johnson Space Center (JSC)	Commonwealth Scientific and Industrial Research Organization (CSIRO)	NASA-CSIRO CubeSat Technology Demonstration Mission	Project-Specific Agreement (PSA)	Collaborative agreement between NASA and CSIRO to cooperate on a cubesat technology demonstration mission. In this agreement, CSIRO will manufacture a cubesat, perform ground testing and environmental testing, deliver a flight-certified unit to NASA, lead mission operations, and share flight and mission data with NASA. In return, NASA will arrange for delivery of the CSIRO cubesat to the International Space Station (ISS), from which it will be deployed into space.	26-Jul-19	26-Jul-22
571	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	26-Jul-19	26-Jul-29
572	Headquarters (HQ)	Koninklijk Netherlands Meteorologisch Instituut (KNMI)	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.	29-Jul-19	29-Jul-24
573	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 in Further Increasing the use of ALOS-2/PALSAR-2 Data for Disaster Monitoring	Project-Specific Agreement (PSA)	NASA recognizes that the Advanced Land Observation Satellite (ALOS-2)/Phased Array type L-band Synthetic Aperture Radar (PALSAR-2) data is useful for disaster monitoring. JAXA promotes the application of ALOS-2/PALSAR-2 data to enhance its provision of societal value for disaster monitoring. The agreement will allow NASA to request ALOS-2/PALSAR-2 data from JAXA for disaster monitoring.	31-Jul-19	31-Mar-21

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
574	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	31-Jul-19	31-Aug-27
575	Johnson Space Center (JSC)	Woodside Engineering Technologies PTY LTD.	Annex 4 Between National Aeronautics and Space Administration and Woodside Energy Technologies Pty Ltd. Regarding Anthropomorphic Robotic Systems	Implementing Arrangement/Agreement (IA)	The purpose of Annex 4 is to enable additional testing in a relevant environment for new robotic manipulation capabilities under development by JSC. Woodside and NASA are developing robotic technologies used for robotic caretaking applications on not normally manned (NNM) rigs and un-crewed spacecraft, respectively. The work performed under this will proceed in two phases. Phase 1 will involve one copy of NASA's first generation end-effector prototype to be loaned to Woodside. NASA representatives will travel to Woodside to assist with integration of NASA's end-effector into a Woodside robotic manipulator, and to perform training to Woodside personnel, and to support field trials of the first-generation system at Woodside facilities. During Phase 2, NASA will incorporate improvements into a second-generation end-effector prototype, based in part on Phase 1 field test data provided by Woodside. In Phase 2, NASA will provide a copy of the second-generation prototype on loan to Woodside for further testing, along with NASA personnel to assist with integration, training and to support field trials.	5-Aug-19	14-Dec-21
576	Goddard Space Flight Center (GSFC)	Japan Aerospace Exploration Agency (JAXA)	Determining Unknown yet Significant Traits (DUST)	Project-Specific Agreement (PSA)	DUST is a joint NASA-JAXA astrophysics sounding rocket mission. JAXA will provide the DUST payload for launch on a NASA sounding rocket. NASA will perform overall project management for the mission.	8-Aug-19	31-Dec-24
577	Johnson Space Center (JSC)	IMPMC-NMHN (Mineralogie)	Agreement between NASA and the Institut de Mineralogie for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Matthieu Gounelle of the Institut de Mineralogie in Paris, France proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	9-Aug-19	9-Aug-24
578	Johnson Space Center (JSC)	Tohoku University	Agreement between NASA and Tohoku University for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Tomoki Nakamura of Tohoku University in Sendai, Japan, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	9-Aug-19	9-Aug-24
579	Johnson Space Center (JSC)	Max Planck Institute for Chemistry	Agreement between NASA and the Max Planck Institute fur Chemie for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Ulrich Ott of the Max Planck Institute for Chemistry in Mainz, Germany, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	9-Aug-19	9-Aug-24
580	Johnson Space Center (JSC)	Kyushu University	Agreement between NASA and the Kyushu University for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Takaaki Noguchi of Kyushu University in Fukuoka, Japan, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	9-Aug-19	9-Aug-24

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
581	Johnson Space Center (JSC)	Kyoto University	Agreement between NASA and Kyoto University for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Aki Takigawa of Kyoto University in Kyoto, Japan, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	9-Aug-19	8-Aug-24
582	Johnson Space Center (JSC)	Birkbeck College of London	Agreement between NASA and Birkbeck University for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Hilary Downes of Birkbeck University in London, UK, proposes to use the Antarctic Meteorite samples to undertake scientific investigations led by PI. 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.	9-Aug-19	9-Aug-24
583	Jet Propulsion Laboratory (JPL)	Japan Aerospace Exploration Agency (JAXA)	NASA-JAXA Agreement for High-Power Testing Capabilities for JAXA's New Deep Space Antenna	Project-Specific Agreement (PSA)	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 Misana antenna will be conducted quid-pro-quo on a no-exchange-of-funds basis.	27-Aug-19	27-Aug-21
584	Ames Research Center (ARC)	United Arab Emirates Space Agency (UAESA)	Reimbursable Space Act Agreement Between NASA and The United Arab Emirates Space Agency (UAESA) for Participation in the NASA International Internship (I [^] 2) Program	Project-Specific Agreement (PSA)	This agreement enables UAE Space Agency participation in the NASA International Internship Program (NASA I [^] 2), designed to provide a collaborative environment where U.S. interns (university undergraduate students) or fellows (university graduate students) can interact and work alongside international peers on research opportunities.	28-Aug-19	31-Dec-24
585	Headquarters (HQ)	International Space University (ISU)	Amendment 7: Visiting Researcher Placements of International Space University (ISU) Masters of Space Studies (MSS) Students	Visiting Researcher Agreement (VRA)	<p>Amendment 7: 2019 Amendment of NASA-ISU 2012 Agreement for ISU MSS Students to Serve 3-6 month internships at NASA</p> <p>Amendment 6: This Visiting Researcher Agreement (VRA) provides for approved students enrolled in ISU's Master of Space Studies (MSS) program to work on projects and/or research of benefit to NASA at selected NASA installations in satisfaction of Module 5 of ISU's MSS program, entitled: Professional Placements. The Parties desire to extend this cooperation, wherein approved ISU students will be assigned to selected NASA installations for a period of approximately 12 weeks to work in areas and on projects agreed to by NASA.</p> <p>Amendment 5 - It provides for approved students enrolled in ISU's Master of Space Studies program to be assigned to selected NASA installations for a period of approximately 12 weeks to work in areas and on projects agreed to by NASA.</p> <p>Amendment 4 - It provides for approved students enrolled in ISU's Master of Space Studies program to be assigned to selected NASA installations for a period of approximately 12 weeks to work in areas and on projects agreed to by NASA.</p> <p>Amendment 3 - NASA/ISU have enjoyed successful cooperation for many years in a cooperative activity wherein students enrolled in ISU's Master of Space Studies (MSS) program and Master of Space Management (MSM) program work on projects and/or research of benefit to NASA at selected NASA Centers in satisfaction of Module 5 of ISU's MSS or MSM programs, entitled: Professional Plac</p>	2-Sep-19	24-Sep-20
586	Goddard Space Flight Center (GSFC)	Netherlands Space Office (NSO)	Ozone Monitoring Instrument (OMI) on Aura	Project-Specific Agreement (PSA)	The Netherlands Space Office (NSO), which superseded the Netherlands Agency for Aerospace Programmes (NIVR), will provide continued operation of the Ozone Monitoring Instrument (OMI) launched in 2004 on NASA's Aura spacecraft and support scientific investigations including data processing.	3-Sep-19	31-Dec-20

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
587	Glenn Research Center at Lewis Field (GRC)	Japan Aerospace Exploration Agency (JAXA)	Extension of the Letter of Agreement on Computational Modeling of Cryogenic Fluids	Project-Specific Agreement (PSA)	Cooperation consist of a series of jointly defined Computational Fluid Dynamic (CFD) benchmarking and modeling validation tests and data exchanges. To improve the capability of cryogenic fluid management and accuracy of CFD codes, which are used to model cryogenic propellant behavior in microgravity conditions, data necessary to perform simulations of a series of pre-coordinated or independently conducted test cases using their respective CFD models are exchanged. Following completion of the simulations, the Parties will share the results and testing approaches used.	5-Sep-19	31-Dec-20
588	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.	17-Sep-19	30-Sep-29
589	Ames Research Center (ARC)	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.	17-Sep-19	19-Sep-24
590	Johnson Space Center (JSC)	Open University	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Agreement for the loan of Antarctic Meteorite Samples to Open University Principal Investigator Mahesh Anand.	18-Sep-19	18-Sep-24
591	Headquarters (HQ)	European Space Agency (ESA)	Advanced Telescope for High-Energy Astrophysics (ATHENA)	Project-Specific Agreement (PSA)	Study agreement to determine NASA contributions to the ESA-led Athena mission.	18-Sep-19	21-Dec-21
592	Johnson Space Center (JSC)	University of Glasgow	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Agreement for the loan of Antarctic Meteorite Samples to University of Glasgow Principal Investigator Luke Daly.	18-Sep-19	18-Sep-24
593	Goddard Space Flight Center (GSFC)	European Space Agency (ESA)	Laser Interferometer Space Antenna (LISA)	Project-Specific Agreement (PSA)	Study agreement to determine NASA contributions to the ESA-led LISA mission.	18-Sep-19	31-Dec-23
594	Johnson Space Center (JSC)	National Institute of Polar Research (NIPR)	Agreement between NASA and the National Institute of Polar Research for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Principal Investigator Makoto Kimura 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.	18-Sep-19	18-Sep-24
595	Johnson Space Center (JSC)	Universitat zu Koln	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Agreement for the loan of Antarctic Meteorite Samples to Universitat zu Koln Principal Investigator Dominik Hezel.	18-Sep-19	18-Sep-24
596	Johnson Space Center (JSC)	University of Helsinki	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Agreement for the loan of Antarctic Meteorite Samples to University of Helsinki Principal Investigator Tomas Kohout.	18-Sep-19	18-Sep-24

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
597	Johnson Space Center (JSC)	Waseda University	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Agreement for the loan of Antarctic Meteorite Samples to Waseda University Principal Investigator Timothy Fagan.	18-Sep-19	18-Sep-24
598	Johnson Space Center (JSC)	Waseda University	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Agreement for the loan of Antarctic Meteorite Samples to Waseda University Principal Investigator Yoshihiro Hidaka.	18-Sep-19	18-Sep-24
599	Johnson Space Center (JSC)	Freie Universitat Berlin	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Agreement for the loan of Antarctic Meteorite Samples to Freie Universitat Berlin Principal Investigator Harry Becker.	18-Sep-19	18-Sep-24
600	Johnson Space Center (JSC)	Curtin University of Technology	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Agreement for the loan of Antarctic Meteorite Samples to Curtin University Principal Investigator Lucy Forman.	18-Sep-19	18-Sep-24
601	Johnson Space Center (JSC)	Open University	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Agreement for the loan of Antarctic Meteorite Samples to Open University Principal Investigator Mahesh Anand.	18-Sep-19	18-Sep-24
602	Johnson Space Center (JSC)	Curtin University of Technology	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Agreement for the loan of Antarctic Meteorite Samples to Curtin University Principal Investigator Lucy Forman.	18-Sep-19	18-Sep-24
603	Headquarters (HQ), Johnson Space Center (JSC)	Mohammed Bin Rashid Space Centre (MBRSC)	Implementing Arrangement for Cooperation in Astronaut Flight Opportunities	Implementing Arrangement/Agreement (IA)	NASA and the Mohammed bin Rashid Space Centre (MBRSC) will work to identify UAE astronaut opportunities and outline flight-specific responsibilities in additional annexes.	19-Sep-19	18-Sep-24
604	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.	20-Sep-19	20-Sep-27
605	George C. Marshall Space Flight Center (MSFC)	Japan Aerospace Exploration Agency (JAXA)	NASA-JAXA Interim Agreement under the Joint Understanding for Pre-Launch Activities for JAXA CubeSats on Artemis 1	Project-Specific Agreement (PSA)	Covers pre-launch activities regarding the JAXA CubeSats EQUilibriUm Lunar-Earth point 6U Spacecraft (EQUULEUS) and Outstanding MOon exploration TEchnologies demonstrated by NAno Semi-Hard Impactor (OMOTENASHI) on Artemis 1	24-Sep-19	31-Dec-20
606	Ames Research Center (ARC)	Israel Space Agency (ISA)	Reimbursable Space Act Agreement Between the Israeli Space Agency (ISA) and NASA for Participation in the NASA International Internship Program (NASA I2)	Project-Specific Agreement (PSA)	This Agreement enables Israel'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.	25-Sep-19	31-Dec-24
607	Johnson Space Center (JSC)		International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Agreement for the loan of Antarctic Meteorite Samples to University of Regina Principal Investigator Ian Coulson.	1-Oct-19	1-Oct-24
608	Johnson Space Center (JSC)		International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Agreement for the loan of Antarctic Meteorite Samples to University of Cambridge Principal Investigator Farhang Nabiei.	1-Oct-19	1-Oct-24
609	Johnson Space Center (JSC)		International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Agreement for the loan of Antarctic Meteorite Samples to Geoscience Institute, Mineralogy Principal Investigator Frank Erich Brenker.	1-Oct-19	1-Oct-24
610	Johnson Space Center (JSC)	Swedish Museum of Natural History	International Antarctic Meteorite Sample Loan Agreement	Project-Specific Agreement (PSA)	Agreement for the loan of Antarctic Meteorite Samples to Swedish Museum of Natural History Principal Investigator Renaud Merle.	1-Oct-19	1-Oct-24

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
611	Goddard Space Flight Center (GSFC)	Hokkaido University (HokuDai)	Ocean Color Research and Lidar Field Work	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.	1-Oct-19	28-Nov-24
612	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.	5-Oct-19	1-Jan-00
613	Goddard Space Flight Center (GSFC)	Swedish National Space Board (SNSB)	Extension 1: Implementing Arrangement Between NASA and the Swedish National Space Board of the Kingdom of Sweden for Cooperation in the Testing and Analysis of Green Propulsion Technology	Implementing Arrangement/Agreement (IA)	NASA will receive and analyze green propulsion fuels and thruster technology, and will share the results.	7-Oct-19	8-Oct-21
614	Glenn Research Center at Lewis Field (GRC)	Australian National Fabrication Facility Ltd (ANFF)	Umbrella Agreement and Annex 1 between the NASA and the Australian National Fabrication Facility Ltd (ANFF)	Project-Specific Agreement (PSA)	<p>NASA and the ANFF plan to leverage their respective strengths to perform fundamental research to advance nanotechnology-based communications and sensing capabilities for aerospace, terrestrial, and biomedical applications. The goal of this cooperative effort is to explore previous, current, and future work that needs to be addressed in the areas of advanced materials, micro- and nano-electronics, including microfluidics, and Micro?Electromechanical Systems (MEMS), bio-nano applications, sensors and medical devices, and photonics. Accordingly, the Parties will attempt to identify gaps and develop methodologies and strategies through which current technology challenges, both at the material and component levels, could be addressed to advance nanotechnology-based communications and sensing capabilities in both the radio frequency and optical realms. This will be accomplished through a series of simulations, materials analysis, prototype development and testing and characterization.</p> <p>Under Annex 1, the Parties will conduct fundamental research on the physical and electrical properties of advanced nanomaterials aimed at the development of novel sensors for biological and health monitoring applications. Emphasis will be placed on the study of the state-of-the-practice (SOP) and the state-of-the-art (SOA) of microfluidic-based nanostructures necessary for robust, reliable, portable, and re-usable microfluidic sensing devices for bio-sensing applications, culminating in the develop</p>	9-Oct-19	10-Oct-24
615	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.	9-Oct-19	9-Oct-29
616	Kennedy Space Center (KSC)	National Commission on Space Activities (CONAE)	Implementing Arrangement (IA) Between NASA and National Commission on Space Activities (CONAE) for Cooperation on the Mission Integration of CONAE's Satellite for Observation and Communication (SAOCOM) 1A and 1B Missions	Implementing Arrangement/Agreement (IA)	NASA will provide advice to CONAE on spacecraft-to-launch-vehicle mission integration topics for integrating CONAE's Satellite for Observation and Communication (SAOCOM) 1A and 1B satellites onto the Falcon 9 v1.1 launch vehicle, through the review of documents and participation in meetings. This cooperation will provide both CONAE and NASA an understanding of commercial practices for integration of complex government spacecraft into the SpaceX Falcon 9 v.1.1 launch vehicle.	11-Oct-19	2-Jul-22
617	Goddard Space Flight Center (GSFC)	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.	15-Oct-19	31-Oct-29

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
618	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.	15-Oct-19	31-Dec-27
619	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.	15-Oct-19	24-Oct-26
620	Headquarters (HQ)	Italian Space Agency (ASI)	NASA's Double Asteroid Redirection Test (DART)	Implementing Arrangement/Agreement (IA)	The DART mission will provide the first demonstration of planetary defense via kinetic energy deflection of the secondary asteroid in the Didymos system. ASI will provide the Light Italian CubeSat for Imaging of Asteroids (LICIACube) CubeSat system to image the DART spacecraft's impact. This IA is under the US-Italy Framework Agreement.	18-Oct-19	30-Sep-23
621	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.	22-Oct-19	22-Oct-29
622	Jet Propulsion Laboratory (JPL)	National Centre for Space Studies (CNES)	Amendment to the Implementing Arrangement (IA) Between NASA and the National Centre for Space Studies (CNES) of France for Cooperation on the Surface Water and Ocean Topography Mission	Implementing Arrangement/Agreement (IA)	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.	24-Oct-19	30-Oct-30
623	Headquarters (HQ)		NASA Global Learning and Observations to Benefit the Environment (GLOBE) cooperation with the Ministry of Education, Science, Research and Sport of Georgia	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.	25-Oct-19	31-Dec-00
624	Langley Research Center (LaRC)	Korea Institute of Science and Technology (KIST)	Annex 2 under the Umbrella Agreement between the National Aeronautics And Space Administration and the Korea Institute Of Science and Technology regarding 4u nanomaterial testing	Umbrella/Framework Agreement (UM/FW)	KIST will provide fabricated 4U nanomaterial composites to NASA to test for various aerospace applications at extreme environments. The three tests to be performed on the CNT and the BNNT nanomaterials are: thermal stability at high speed and high thermal flux conditions; space radiation shielding capabilities; and energy harvesting capabilities of the nanomaterial composites. Additional thermal, chemical, mechanical, and environmental characterizations of the constituents will be determined, as required, to validate the synthesis and processing techniques and the quality of the final products.	28-Oct-19	16-Aug-20

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
625	Johnson Space Center (JSC)	National Research Council (CSIC)	Agreement between NASA and the Institute of Space Sciences of the Spanish National Research Council for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Principal Investigator Josep M. Trigo-Rodriguez 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.	29-Oct-19	29-Oct-24
626	Johnson Space Center (JSC)	MacEwan University	Agreement between NASA and MacEwan University for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Principal Investigator Erin Walton 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.	29-Oct-19	29-Oct-24
627	Johnson Space Center (JSC)	University of Manchester	Agreement between NASA and University of Manchester for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Principal Investigator Patricia Clay 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.	29-Oct-19	29-Oct-24
628	Johnson Space Center (JSC)	Woodside Engineering Technologies PTY LTD.	Extension of Annex 3 Between National Aeronautics and Space Administration And Woodside Energy Technologies Pty Ltd. Regarding Anthropomorphic Robotic Systems testing	Project-Specific Agreement (PSA)	This is a time extension to Annex 3. The purpose of Annex 3 is to further develop the manipulation of, and planning framework for, autonomous, robotic use of tools and interfaces. NASA Johnson Space Center (JSC) and Woodside are collaboratively working on developing humanoid robotic technology and robotic caretaking applications for not normally manned (NNM) rigs or un-crewed spacecraft, and developing anthropomorphic robotic systems that can be controlled autonomously or through shared control from remote locations. Robotic caretaking, controlled autonomously or through remote shared control, is essential technology for future exploration missions to the lunar or Martian environments. This Annex involves a three-phased approach to the continued development of the Affordance Templates user interface, which was released to Woodside as part of Annex 1.	1-Nov-19	14-Dec-21
629	Langley Research Center (LaRC)	Delft University of Technology (DUT)	Non-Reimbursable International Space Act Agreement Between NASA and Delft University of Technology for Fundamental Research in the Area Of Solar Sailing Astrodynamics	Project-Specific Agreement (PSA)	The Parties are each conducting complementary research related to architectural concepts and scientific applications of solar sailing.	15-Nov-19	15-Nov-22
630	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.	17-Nov-19	18-Nov-00
631	Goddard Space Flight Center (GSFC)	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.	18-Nov-19	18-Nov-00
632	Armstrong Flight Research Center (AFRC), Headquarters (HQ), Kennedy Space Center (KSC)	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 Galileo Receiver for High Elliptical Orbit - GARHEO	Implementing Arrangement/Agreement (IA)	Implementing Arrangement with the Italian Space Agency (ASI) for cooperation on the flight test of the Autonomous Flight Termination System (AFTS), and in particular to examine the signal availability of the GPS+Galileo signals in high elliptical orbits. NASA intends to fly ASI's GPS+GALILEO Software Defined Radio (GARHEO) hardware on board NASA's SL-14 sounding rocket mission in support of this collaboration.	19-Nov-19	19-Nov-24

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
633	Headquarters (HQ)	German Aerospace Center (DLR)	Implementing Arrangement Between the National Aeronautics and Space Administration and the German Aerospace Center for Cooperation on the Aerosol Cloud Meteorology Interactions Over the Western North Atlantic (ACTIVATE) Atmospheric Science Experiment	Implementing Arrangement/Agreement (IA)	The purpose of this activity is to quantify and model how aerosols form clouds, how the meteorological environment affects these processes, and how the resulting cloud properties depend on aerosols and the meteorological environment. DLR will provide the Two Dimensional Stereo/Fast Cloud Droplet Probe and the Backscatter Cloud Probe with Polarization Detection instruments. NASA will fly these instruments on the NASA LaRC King Air and HU-25 aircraft.	21-Nov-19	21-Nov-24
634	Johnson Space Center (JSC)	Curtin University of Technology	Agreement between NASA and Curtin University of Technology for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Principal Investigator Alexander Nemchin 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.	26-Nov-19	26-Nov-24
635	Johnson Space Center (JSC)	Open University	Agreement between NASA and The Open University for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Principal Investigator Richard Greenwood 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.	26-Nov-19	26-Nov-24
636	Johnson Space Center (JSC)	Universitat zu Koln	Agreement between NASA and the Universitat zu Koln for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Principal Investigator Frank Wombacher 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.	26-Nov-19	26-Nov-24
637	Johnson Space Center (JSC)	Heidelberg University	Agreement between NASA and Heidelberg University for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Principal Investigator Mario Triecoff 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.	26-Nov-19	26-Nov-24
638	Goddard Space Flight Center (GSFC)	Earth-Life Science Institute (ELSI)	Visiting Researcher Agreement for Dr. Yuka Ebihara for Work At Goddard Institute for Space Studies (GISS)	Visiting Researcher Agreement (VRA)	Dr. Ebihara will work in collaboration with the Nexus for Exoplanet System Science	28-Nov-19	30-Nov-21
639	Johnson Space Center (JSC)	Kobe University	Agreement between NASA and Kobe University for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Principal Investigator Kazushige Tomeoka 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-Dec-19	6-Dec-24
640	Johnson Space Center (JSC)	University of Leicester	Agreement between NASA and the University of Leicester for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Principal Investigator John Bridges 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-Dec-19	6-Dec-24
641	Ames Research Center (ARC)	Karlsruhe Institute of Technology	Agreement between the National Aeronautics and Space Administration of the United States of America and the Karlsruhe Institute of Technology of the Federal Republic of Germany Concerning the Concurrent In-Situ and Lidar Investigation of Ice Containing Clouds in the -40 to 0 Degree Celsius Temperature Range	Project-Specific Agreement (PSA)	Cooperation to fly the KIT-provided Particle Habit Imaging and Polar Scattering (PHIPS) instrument on the NSAA P3-B research aircraft to measure the microphysical characteristics and radiative properties of snowbands in order to fully understand the processes contributing to the increase in reflectivity associated with banded structures. The PHIPS instrument links microphysical details with ice crystal scattering property of polarized light, making it ideally suited to evaluate active remote sensing observations.	9-Dec-19	9-Dec-24

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
642	Ames Research Center (ARC)	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.	17-Dec-19	31-Dec-25
643	Goddard Space Flight Center (GSFC)	European Space Agency (ESA)	Amendment: Hubble Space Telescope (HST)/2.4-Meter Space Telescope (ST)	Project-Specific Agreement (PSA)	Amendment 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.	19-Dec-19	31-Dec-24
644	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.	19-Dec-19	31-Mar-27
645	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.	19-Dec-19	31-Dec-50
646	Jet Propulsion Laboratory (JPL)	Italian Space Agency (ASI)	Extension 3: Memorandum of Understanding (MOU) Between NASA and Agenzia Spaziale Italia (ASI) Concerning the Nuclear Spectroscopic Telescope Array (NuSTAR) Mission	Project-Specific Agreement (PSA)	Extension 3: Memorandum of Understanding (MOU). NASA and ASI are cooperating on the Nuclear Spectroscopic Telescope Array (NuSTAR) mission. NASA is providing the mission while ASI is primarily providing the ground systems using their Malindi facility in Kenya.	23-Dec-19	31-Dec-23
647	Jet Propulsion Laboratory (JPL)	Italian Space Agency (ASI)	2005 Mars Reconnaissance Orbiter (MRO) Mission	Project-Specific Agreement (PSA)	An MOU to define NASA-ASI cooperation on activities associated with the NASA 2005 Mars Reconnaissance Orbiter (MRO) mission. ASI provided the Shallow Radar (SHARAD) instrument. MRO continues to identify and characterize sites for future landed missions, and provide critical telecommunications relay capability for follow-on Mars missions.	27-Dec-19	31-Dec-21
648	Jet Propulsion Laboratory (JPL)	Italian Space Agency (ASI)	Memorandum of Understanding (MOU) Between the Italian Space Agency (ASI) and NASA Concerning Cooperation on the Mars Advanced Radar for Subsurface and Ionospheric Sounding (MARSIS) and Planetary Fourier Spectrometer (PFS) to be Flown on the European Space Agency's (ESA) 2003 Mars Express Mission	Project-Specific Agreement (PSA)	Memorandum of Understanding (MOU) defines the responsibilities of NASA and ASI and the terms and conditions for cooperation for development of the Mars Advanced Radar for Subsurface and Ionospheric Sounding (MARSIS) and the Planetary Fourier Spectrometer (PFS) to be flown on-board ESA's 2003 Mars Express Mission, and also provides for support of the U.S. and Italian P.I.'s and Co-PI's.	27-Dec-19	31-Dec-20
649	Goddard Space Flight Center (GSFC)	Hiroshima University, Japan Aerospace Exploration Agency (JAXA)	Amendment 3: Amendment to the Agreement between NASA and JAXA and the Hiroshima University for Cooperation on the Gamma-Ray Large Area Space Telescope (GLAST or FERMI) Mission	Project-Specific Agreement (PSA)	Amendment 3 for NASA-JAXA Cooperation GLAST.	31-Dec-19	31-Dec-23
650	Headquarters (HQ)		GLOBE Slovakia	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.	31-Dec-19	31-Dec-29

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
651	Armstrong Flight Research Center (AFRC)	Canadian Space Agency (CSA)	Reimbursable Space Act Agreement Between NASA and the Canadian Space Agency (CSA) for Airborne Science Research Using the Spatial Heterodyne Observations of Water (SHOW) Instrument	Project-Specific Agreement (PSA)	The Canadian Space Agency (CSA) will test and use their Spatial Heterodyne Observations of Water (SHOW) instrument on a NASA ER-2 in the United States to measure vertical water vapor distribution in the Upper Troposphere/Lower Stratosphere (UT/LS).	9-Jan-20	31-Mar-21
652	Headquarters (HQ)	Technical University of Denmark (DTU)	Extension 3: Agreement for the Nuclear Spectroscopic Telescope Array (NuSTAR) mission	Project-Specific Agreement (PSA)	Agreement extension 3: Collaboration on the NuSTAR mission	13-Jan-20	31-Dec-23
653	Goddard Space Flight Center (GSFC)	Oxford University	Reimbursable Agreement for the Use of the NASA Cryogenic, High Accuracy, and Refraction Measuring System (CHARMS) Facility	Project-Specific Agreement (PSA)	NASA will conduct refractive tests of sample prisms provided by Oxford University.	13-Jan-20	13-Jan-22
654	Goddard Space Flight Center (GSFC)	Italian Space Agency (ASI)	Extension 3: Extension of the Memorandum of Understanding Between NASA and ASI Concerning the Gamma-ray Large Area Telescope Mission (GLAST)	Project-Specific Agreement (PSA)	Extension 3: Memorandum of Understanding (MOU). MOU covers the cooperation between NASA and ASI on the GLAST mission. It replaces all previous Letter of Agreement's (LOA) between ASI and NASA for the GLAST mission.	16-Jan-20	31-Dec-23
655	Johnson Space Center (JSC)	CRPG-CNRS	Agreement between NASA and CRPG for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Principal Investigator Beatrice Luais 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.	21-Jan-20	21-Jan-24
656	Johnson Space Center (JSC)	University of the Basque Country (UPV/EHU)	Agreement between NASA and the University of the Basque Country for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Principal Investigator Juan Manuel Madariaga 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.	21-Jan-20	21-Jan-25
657	Kennedy Space Center (KSC)	Airbus Defence and Space GmbH (Airbus)	Amendment to Annex 1 of the Reimbursable Space Act Umbrella Agreement Between NASA and Airbus for the European Space Agency (ESA) Service Module Launch Site Processing	Umbrella/Frame work Agreement (UM/FW)	This amendment to Annex 1 of the Umbrella Reimbursable Space Act agreement (hereinafter referred to as the 'Agreement') provides an additional \$24,038.01 in funds to support Airbus activities under the same scope of work as detailed in the Agreement, making the total reimbursable amount \$79,646.93. The period of performance remains the same.	24-Jan-20	10-Jun-23
658	Johnson Space Center (JSC)	Woodside Engineering Technologies PTY LTD.	Extension of Amendment 2 of Annex 2 (Annex 2A) between NASA and Woodside Energy Technologies Pty Ltd. Regarding Anthropomorphic Robotic Systems	Implementing Arrangement/Agreement (IA)	Amendment 3 of Annex 2 (Annex 2A): This is the third extension of Annex 2, now called Annex 2A. NASA Johnson Space Center and Woodside are collaboratively working on developing humanoid robotic technology and robotic caretaking applications for not-normally manned (NNM) rigs, and developing anthropomorphic robotic systems that can be controlled autonomously or through shared control from offshore locations. Robotic caretaking, controlled autonomously or through remote shared control, is essential technology for future exploration missions to the lunar or Martian environments. The amendment and extension includes sending an additional two NASA engineers and a NASA contractor to Australia for 90 days each, consecutively, for maintenance and support of the R2C unit delivered as part of the Annex 1. This is under the Reimbursable Space Act Umbrella Agreement between The National Aeronautics and Space Administration and Woodside Energy Technologies Pty Ltd Regarding Anthropomorphic Robotic Systems. Amendment and Extension 1 of Annex 2: \$240,451.44 USD in Annex 2 + \$436,308.06 for the amendment and extension of Annex 2 = \$676,779.50 USD new total for Annex 2. NASA Johnson Space Center and Woodside are collaboratively working on developing humanoid robotic technology and robotic care-taking applications for not-normally manned (NNM) rigs, and developing anthropomorphic robotic systems that can be controlled autonomously or through shared control from offshore locations.	31-Jan-20	15-Oct-20

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
659	Headquarters (HQ)		NASA-JAXA Study Agreement for Lunar Rovers and Mobility Systems	Project-Specific Agreement (PSA)	This is a study agreement between NASA and JAXA enabling detailed technical discussions on lunar surface mobility systems, including potential rover contributions from Japan to the Artemis program.	31-Jan-20	31-Mar-22
660	Johnson Space Center (JSC)	University of Leicester	Agreement between NASA and the University of Leicester for the Loan of Cosmic Dust Samples	Project-Specific Agreement (PSA)	Principal Investigator John Bridges 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.	2-Feb-20	3-Feb-25
661	Johnson Space Center (JSC)	CEREGE	Agreement between NASA and CEREGE for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Principal Investigator Pierre Rochette 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-Feb-20	3-Feb-25
662	Headquarters (HQ)	South African Space Agency (SANSa)	Agreement Between the National Aeronautics and Space Administration (NASA) and the South African National Space Agency (SANSa) to Study the Potential for a Tracking and Communications Antenna Site in Matjiesfontein, South Africa	Project-Specific Agreement (PSA)	Cooperative agreement between NASA and the South African National Space Agency (SANSa), for the two agencies to study the potential for joint tracking and communications antenna site in Matjiesfontein (MTJ), S. Africa. In this Agreement, SANSa and NASA will jointly assess the suitability of MTJ to host antenna infrastructure for the support of NASA missions. The study will determine the suitability of MTJ and determine the best infrastructure and antenna types for the potential site, and will assess the potential for different types of government and commercial partnerships.	7-Feb-20	7-Feb-23
663	Johnson Space Center (JSC)	University College London	Agreement between NASA and the London Centre for Nanotechnology for the Loan of Antarctic Meteorite Samples	Project-Specific Agreement (PSA)	Principal Investigator Dominic Papineau 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.	20-Feb-20	20-Feb-25
664	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.	9-Mar-20	31-Dec-25
665	Ames Research Center (ARC)	German Aerospace Center (DLR)	Implementing Arrangement (IA) Between NASA and the German Aerospace Center (DLR) for Cooperation on the Eu:CROPIS Mission	Implementing Arrangement/Agreement (IA)	Amendment 1-Amendment of the Implementing Arrangement between NASA and the German Aerospace Center for Cooperation on the Eu:Cropis Mission	21-Mar-20	26-Oct-20

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
666	Langley Research Center (LaRC)	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	Project-Specific Agreement (PSA)	<p>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.</p> <p>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.</p>	30-Mar-20	31-Jan-26
667	Goddard Space Flight Center (GSFC), Jet Propulsion Laboratory (JPL)	Japan Aerospace Exploration Agency (JAXA)	Wide Field Infrared Space Telescope	Project-Specific Agreement (PSA)	Agreement to study possible cooperation on the NASA WFIRST Mission.	3-Apr-20	31-Mar-25
668	Jet Propulsion Laboratory (JPL)	Qatar-Qatar Foundation	REIMBURSABLE SPACE ACT AGREEMENT BETWEEN THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION AND QATAR FOUNDATION FOR SCIENCE, EDUCATION & COMMUNITY DEVELOPMENT FOR ORBITING ARID SUBSURFACE AND ICE SHEET SOUNDER (OASIS) MISSION CONCEPT STUDY	Project-Specific Agreement (PSA)	NASA will deliver a Mission Concept Study proposed concept study that will formulate a mission to map the depth of the water table in hyper-arid deserts.	7-Apr-20	7-Apr-22
669	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.	16-Apr-20	25-Jan-25
670	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.	16-Apr-20	16-Apr-30

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
671	Goddard Space Flight Center (GSFC)	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.	20-Apr-20	20-Apr-25
672	Goddard Space Flight Center (GSFC)	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.	8-May-20	26-Jun-25
673	Johnson Space Center (JSC)	University College London	Extension of the Agreement Between NASA and The University College London (UCL) for Cooperation on Li-ion Battery Design	Project-Specific Agreement (PSA)	NASA and The University College London (UCL) in the United Kingdom will establish a cooperative agreement to advance an understanding of the relationship between Lithium ion (Li-ion) cell design and thermal runaway phenomena, which can lead to overheating and fire. This collaboration will guide safer battery designs, namely those features that mitigate the hazard of single cell thermal runaway, with potentially wide spectrum of future applications, including automobiles, aircraft and human spaceflight. NASA is conducting research aimed at developing thermal runaway propagation prevention measures in Li-ion battery pack designs, an area of interest to UCL. Meanwhile, among UCL Li-ion battery research interests is the performance of internal short circuit devices in simulating manufacturing defects, which can contribute to thermal runaway behaviors. UCL also has access to synchrotron facilities which provides additional means to acquire, reduce, and analyze in-situ high speed video X-rays of cells during thermal runaway.	14-May-20	24-May-25
674	Langley Research Center (LaRC)	Swerea SICOMP	NASA-Swerea SICOMP Agreement on The Development of Simulation Tools for Composite Laminate Failure " Extension #2	Project-Specific Agreement (PSA)	The research under this agreement shall be for the purpose of creating a software tool to numerically simulate damage in composite laminate materials that is more efficient and user friendly than currently available alternatives. The tool will be created at NASA Langley Research Center in Virginia. Swerea SICOMP has extensive experience in the area of composite damage testing and prediction and as a result has specialized archived test data that will be used to aid NASA in the development and testing of the software.	18-May-20	30-Sep-20
675	Glenn Research Center at Lewis Field (GRC)	French National Aerospace Research Center (ONERA)	Amendment 3: NASA-ONERA Agreement on Swept-Wing Ice Accretion Characterization and Aerodynamics Research	Project-Specific Agreement (PSA)	Amendment 3: NASA and ONERA will jointly produce data from experimental and computational tasks that will benefit both organizations in the field of aircraft safety. The research is focused on understanding the effects of Reynolds number modeling on aerodynamic degradation resulting from the accretion of ice on modern aircraft wings. NASA will develop models that will be tested in an ONERA facility and the data from the testing will be available to the Parties. The data will eventually be available to the public through publications, reports, conference presentations, and journal articles. NASA and ONERA will contribute approximately equivalent resources to the research and will jointly receive benefits from the effort that exceed research that could be obtained from operating independently.	25-May-20	31-May-21
676	Headquarters (HQ)	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.	26-May-20	30-Jun-30

Active International Agreements by Signature Date (as of June 30, 2020)

No.	NASA Installation	Partner Name	Title/Purpose	Type of Agreement	Activity Description	Execution (Signature) Date	Expiration Date
677	Jet Propulsion Laboratory (JPL)	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.	29-May-20	24-Sep-25
678	Goddard Space Flight Center (GSFC), Headquarters (HQ)	Austrian 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.	19-Jun-20	21-Jun-25
679	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.	23-Jun-20	23-Jun-30