NONREIMBURSABLE SPACE ACT AGREEMENT
BETWEEN
THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
GEORGE C. MARSHALL SPACE FLIGHT CENTER
AND
ARIZONA BOARD OF REGENTS, ON BEHALF OF UNIVERSITY OF ARIZONA
FOR
FIREBALL NETWORK STATION AT MMTO

ARTICLE 1. AUTHORITY AND PARTIES

In accordance with the National Aeronautics and Space Act (51 U.S.C. § 20113(e)), this Agreement is entered into by the National Aeronautics and Space Administration George C. Marshall Space Flight Center, located at Marshall Space Flight Center, AL 35812 (hereinafter referred to as "NASA" or "NASA MSFC") and Arizona Board of Regents, On Behalf of University of Arizona, Multiple Mirror Telescope Observatory located at University of Arizona, Contracts & Research Support Program, 888 N. Euclid Ave., P.O. Box 210158, Tucson, AZ 85721-0158 (hereinafter referred to as "Partner" or "MMTO"). NASA and Partner may be individually referred to as a "Party" and collectively referred to as the "Parties."

ARTICLE 2. PURPOSE

This Agreement shall be for the purpose of (1) providing a Fireball Network Station at Multiple Mirror Telescope Observatory (MMTO) that will monitor the night sky in order to detect bright meteors (a.k.a. fireballs) and (2) disseminating the publicly available analyses of the data to university faculty and scientists for meteor research and for outreach activities involving the media and secondary education.

ARTICLE 3. RESPONSIBILITIES

A. NASA MSFC will use reasonable efforts to:

1. Deploy, install and maintain NASA's equipment (dedicated camera and associated computer system) for the Fireball Network Station at MMTO.

2. Provide daily e-mail summaries and access to a website containing meteor information observed with the NASA All Sky Fireball Network.

3. Provide information on meteor science and usage of fireball data.

4. On request, provide more detailed analyses of bright meteor events occurring within range of the camera.

5. Acknowledge Partner's participation in all journal publications using data from the Fireball Network Station and provide copies of all journal publications pertaining to the Network.

6. Remove deployed equipment after the term of this Agreement.

B. Partner will use reasonable efforts to:

1. Provide a stationary location for the dedicated camera system that (1) is suitable for overlapping camera coverage with the other cameras in the NASA All Sky Fireball Network, and (2) has a reasonably unobstructed view of the horizon without direct impingement of light from external sources.

2. Provide a secure, climate-controlled location for the dedicated computer system that (1) is within 125 feet of the camera system, (2) is within 50 feet of a window or other outdoor access suitable for a global positioning system antenna, (3) has electrical power suitable for operating a computer system, and (4) has a continuous, high-speed internet connection and service with a static IP address. (If a firewall is in place, port 22 will be opened for communication in/out to/from the NASA computer.)

3. Provide two staff members who will serve as the primary and secondary communicators with NASA MSFC in matters pertaining to the equipment and its operation. These individuals may also be asked to provide assistance with power and network issues.

4. Provide access to NASA to deploy and maintain equipment as needed.

5. Use the provided data analyses from this camera station and others in the NASA Network in scientific research, student education, and outreach activities involving the media and the public (where appropriate).

6. Provide courtesy copies of any products developed (e.g. journal publications, press releases, newspaper articles, student responses).

7. Cooperate with NASA on all matters arising out of this activity.

ARTICLE 4. SCHEDULE AND MILESTONES

The planned major milestones for the activities defined in the "Responsibilities" Article are as follows:

Fireball Network camera and computer deployed and installed	Effective Date
Fireball Network Station operational	Effective Date
Deployed NASA equipment removed and returned to NASA	End of Agreement

ARTICLE 5. FINANCIAL OBLIGATIONS

There will be no transfer of funds between the Parties under this Agreement and each Party will fund its own participation. All activities under or pursuant to this Agreement are subject to the availability of funds, and no provision of this Agreement shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act, (31 U.S.C. § 1341).

ARTICLE 6. PRIORITY OF USE

Any schedule or milestone in this Agreement is estimated based upon the Parties' current understanding of the projected availability of NASA goods, services, facilities, or equipment. In the event that NASA's projected availability changes, Partner shall be given reasonable notice of that change, so that the schedule and milestones may be adjusted accordingly. The Parties agree that NASA's use of the goods, services, facilities, or equipment shall have priority over the use planned in this Agreement. Should a conflict arise, NASA in its sole discretion shall determine whether to exercise that priority. Likewise, should a conflict arise as between two or more non-NASA Partners, NASA, in its sole discretion, shall determine the priority as between those Partners. This Agreement does not obligate NASA to seek alternative government property or services under the jurisdiction of NASA at other locations.

ARTICLE 7. NONEXCLUSIVITY

This Agreement is not exclusive; accordingly, NASA may enter into similar agreements for the same or similar purpose with other private or public entities.

ARTICLE 8. LIABILITY AND RISK OF LOSS

A. Each Party hereby waives any claim against the other Party or one or more of its Related Entities (defined below) for any injury to, or death of, the waiving Party or one or more of its Related Entities, or for damage to, or loss of, the waiving Party's property or the property of its Related Entities arising from or related to activities conducted under this Agreement, whether such injury, death, damage, or loss arises through negligence or otherwise, except in the case of willful misconduct.

B. Partner further agrees to extend this waiver to its related entities by requiring them, by contract or otherwise, to waive all claims against NASA and its Related Entities for injury, death, damage, or loss arising from or related to activities conducted under this Agreement. For purposes of this Agreement, "Related Entities" shall mean contractors and subcontractors of a Party at any tier; grantees, investigators, customers, and users of a Party at any tier and their contractors or subcontractor at any tier; or, employees of the Party or any of the foregoing.

C. Notwithstanding the other provisions of this Article, the waivers of liability set forth in this section shall not be applicable to:

i. Claims between a Party and its own Related Entity or between its own Related Entities;
ii. Claims made by a natural person, his/her estate, survivors, or anyone claiming by or through

him/her (except when such person or entity is a Party to this Agreement or is otherwise bound by the terms of this waiver) for bodily injury to, or other impairment of health of, or death of, such person;
iii. Claims for damage caused by willful misconduct;
iv. Intellectual property claims;
v. Claims for damage resulting from a failure of a Party to extend the waiver of liability to its Related Entities, pursuant to paragraph B of this Article; or
vi. Claims by a Party arising out of or relating to another Party's failure to perform its obligations under this Agreement.

ARTICLE 9. INTELLECTUAL PROPERTY RIGHTS - DATA RIGHTS

Information and data exchanged under this Agreement is exchanged without restrictions unless required by national security regulations (e.g., classified information) or as otherwise provided in this Agreement or agreed to by the Parties for specifically identified information or data (e.g., information or data specifically marked with a restrictive notice).

ARTICLE 10. INTELLECTUAL PROPERTY RIGHTS - INVENTION AND PATENT RIGHTS

A. "Related Entity" as used in this Invention and Patent Rights Article means a contractor, subcontractor, grantee, or other entity having a legal relationship with NASA or Partner assigned, tasked, or contracted with to perform activities under this Agreement.

B. The invention and patent rights herein apply to employees and Related Entities of Partner. Partner shall ensure that its employees and Related Entity employees know about and are bound by the obligations under this Article.

C. NASA has determined that 51 U.S.C. § 20135(b) does not apply to this Agreement. Therefore, title to inventions made (conceived or first actually reduced to practice) under this Agreement remain with the respective inventing party(ies). No invention or patent rights are exchanged or granted under this Agreement. NASA and Partner will use reasonable efforts to report inventions made jointly by their employees (including employees of their Related Entities). The Parties will consult and agree on the responsibilities and actions to establish and maintain patent protection for joint invention, and on the terms and conditions of any license or other rights exchanged or granted between them.

ARTICLE 11. USE OF NASA NAME AND NASA EMBLEMS

A. NASA Name and Initials

Partner shall not use "National Aeronautics and Space Administration" or "NASA" in a way that creates the impression that a product or service has the authorization, support, sponsorship, or endorsement of NASA, which does not, in fact, exist. Except for releases under the "Release of General Information to the Public and Media" Article, Partner must submit any proposed public

use of the NASA name or initials (including press releases and all promotional and advertising use) to the NASA Associate Administrator for the Office of Communications or designee ("NASA Communications") for review and approval. Approval by NASA Office of Communications shall be based on applicable law and policy governing the use of the NASA name and initials.

B. NASA Emblems

Use of NASA emblems (i.e., NASA Seal, NASA Insignia, NASA logotype, NASA Program Identifiers, and the NASA Flag) is governed by 14 C.F.R. Part 1221. Partner must submit any proposed use of the emblems to NASA Communications for review and approval.

ARTICLE 12. RELEASE OF GENERAL INFORMATION TO THE PUBLIC AND MEDIA

NASA or Partner may, consistent with Federal law and this Agreement, release general information regarding its own participation in this Agreement as desired.

Pursuant to Section 841(d) of the NASA Transition Authorization Act of 2017, Public Law 115-10 (the "NTAA"), NASA is obligated to publicly disclose copies of all agreements conducted pursuant to NASA's 51 U.S.C. §20113(e) authority in a searchable format on the NASA website within 60 days after the agreement is signed by the Parties. The Parties acknowledge that a copy of this Agreement will be disclosed, without redactions, in accordance with the NTAA.

ARTICLE 13. DISCLAIMER OF WARRANTY

Goods, services, facilities, or equipment provided by NASA under this Agreement are provided "as is." NASA makes no express or implied warranty as to the condition of any such goods, services, facilities, or equipment, or as to the condition of any research or information generated under this Agreement, or as to any products made or developed under or as a result of this Agreement including as a result of the use of information generated hereunder, or as to the merchantability or fitness for a particular purpose of such research, information, or resulting product, or that the goods, services, facilities or equipment provided will accomplish the intended results or are safe for any purpose including the intended purpose, or that any of the above will not interfere with privately-owned rights of others. Neither the government nor its contractors shall be liable for special, consequential or incidental damages attributed to such equipment, facilities, technical information, or services provided under this Agreement or such research, information, or resulting products made or developed under or as a result of this Agreement.

ARTICLE 14. DISCLAIMER OF ENDORSEMENT

NASA does not endorse or sponsor any commercial product, service, or activity. NASA's participation in this Agreement or provision of goods, services, facilities or equipment under this Agreement does not constitute endorsement by NASA. Partner agrees that nothing in this Agreement will be construed to imply that NASA authorizes, supports, endorses, or sponsors any product or service of Partner resulting from activities conducted under this Agreement,

regardless of the fact that such product or service may employ NASA-developed technology.

ARTICLE 15. COMPLIANCE WITH LAWS AND REGULATIONS

A. The Parties shall comply with all applicable laws and regulations including, but not limited to, safety; security; export control; environmental; and suspension and debarment laws and regulations. Access by a Partner to NASA facilities or property, or to a NASA Information Technology (IT) system or application, is contingent upon compliance with NASA security and safety policies and guidelines including, but not limited to, standards on badging, credentials, and facility and IT system/application access, including use of Interconnection Security Agreements (ISAs), when applicable.

B. With respect to any export control requirements:

1. The Parties will comply with all U.S. export control laws and regulations, including the International Traffic in Arms Regulations (ITAR), 22 C.F.R. Parts 120 through 130, and the Export Administration Regulations (EAR), 15 C.F.R. Parts 730 through 799, in performing work under this Agreement or any Annex to this Agreement. In the absence of available license exemptions or exceptions, the Partner shall be responsible for obtaining the appropriate licenses or other approvals, if required, for exports of hardware, technical data and software, or for the provision of technical assistance.

2. The Partner shall be responsible for obtaining export licenses, if required, before utilizing foreign persons in the performance of work under this Agreement or any Annex under this Agreement, including instances where the work is to be performed on-site at NASA and where the foreign person will have access to export-controlled technical data or software.

3. The Partner will be responsible for all regulatory record-keeping requirements associated with the use of licenses and license exemptions or exceptions.

4. The Partner will be responsible for ensuring that the provisions of this Article apply to its Related Entities.

C. With respect to suspension and debarment requirements:

1. The Partner hereby certifies, to the best of its knowledge and belief, that it has complied, and shall comply, with 2 C.F.R. Part 180, Subpart C, as supplemented by 2 C.F.R. Part 1880, Subpart C.
2. The Partner shall include language and requirements equivalent to those set forth in subparagraph C.1., above, in any lower-tier covered transaction entered into under this Agreement.

ARTICLE 16. TERM OF AGREEMENT

This Agreement becomes effective upon the date of the last signature below ("Effective Date") and shall remain in effect until the completion of all obligations of both Parties hereto, or five

years from the Effective Date, whichever comes first.

ARTICLE 17. RIGHT TO TERMINATE

Either Party may unilaterally terminate this Agreement by providing thirty (30) calendar days written notice to the other Party.

ARTICLE 18. CONTINUING OBLIGATIONS

The rights and obligations of the Parties that, by their nature, would continue beyond the expiration or termination of this Agreement, e.g., "Liability and Risk of Loss" and "Intellectual Property Rights"-related clauses shall survive such expiration or termination of this Agreement.

ARTICLE 19. POINTS OF CONTACT

The following personnel are designated as the Points of Contact between the Parties in the performance of this Agreement.

Management Points of Contact

NASA George C. Marshall Space Flight Center	Arizona Board of Regents, On Behalf of University of Arizona
William J. Cooke	Multiple Mirror Telescope Observatory
Aerospace Engineer	Ricardo Ortiz
Marshall Space Flight Center, AL 35812	Mountain Operations Manager
Phone: 256-544-9136	MMT Observatory
Fax: 256-544-0242	P.O. Box 210065
william.j.cooke@nasa.gov	Tucson, AZ 85721-0065
	Phone: 520-879-4556
	Fax: 520-879-4540
	rortiz@mmto.org

Technical Points of Contact

NASA George C. Marshall Space Flight Center	Arizona Board of Regents, On Behalf of University of Arizona
William J. Cooke	Multiple Mirror Telescope Observatory
Aerospace Engineer	Ricardo Ortiz
Marshall Space Flight Center, AL 35812	Mountain Operations Manager
Phone: 256-544-9136	MMT Observatory
Fax: 256-544-0242	P.O. Box 210065
william.j.cooke@nasa.gov	Tucson, AZ 85721-0065
	Phone: 520-879-4556
	Fax: 520-879-4540
	rortiz@mmto.org

ARTICLE 20. DISPUTE RESOLUTION

Except as otherwise provided in the Article entitled "Priority of Use," the Article entitled "Intellectual Property Rights – Invention and Patent Rights" (for those activities governed by 37 C.F.R. Part 404), and those situations where a pre-existing statutory or regulatory system exists (e.g., under the Freedom of Information Act, 5 U.S.C. § 552), all disputes concerning questions of fact or law arising under this Agreement shall be referred by the claimant in writing to the appropriate person identified in this Agreement as the "Points of Contact." The persons identified as the "Points of Contact" for NASA and the Partner will consult and attempt to resolve all issues arising from the implementation of this Agreement. If they are unable to come to agreement on any issue, the dispute will be referred to the signatories to this Agreement, or their designees, for joint resolution. If the Parties remain unable to resolve the dispute, then the NASA signatory or that person's designee, as applicable, will issue a written decision that will be the final agency decision for the purpose of judicial review. Nothing in this Article limits or prevents either Party from pursuing any other right or remedy available by law upon the issuance of the final agency decision.

ARTICLE 21. MODIFICATIONS

Any modification to this Agreement shall be executed, in writing, and signed by an authorized representative of NASA and the Partner.

ARTICLE 22. ASSIGNMENT

Neither this Agreement nor any interest arising under it will be assigned by the Partner or NASA without the express written consent of the officials executing, or successors, or higher- level officials possessing original or delegated authority to execute this Agreement.

ARTICLE 23. APPLICABLE LAW

U.S. Federal law governs this Agreement for all purposes, including, but not limited to, determining the validity of the Agreement, the meaning of its provisions, and the rights, obligations and remedies of the Parties.

ARTICLE 24. INDEPENDENT RELATIONSHIP

This Agreement is not intended to constitute, create, give effect to or otherwise recognize a joint venture, partnership, or formal business organization, or agency agreement of any kind, and the rights and obligations of the Parties shall be only those expressly set forth herein.

ARTICLE 25. LOAN OF GOVERNMENT PROPERTY

The parties shall enter into a NASA Form 893, Loan of NASA Equipment, for NASA equipment

loaned to Partner.

ARTICLE 26. SIGNATORY AUTHORITY

The signatories to this Agreement covenant and warrant that they have authority to execute this Agreement. By signing below, the undersigned agrees to the above terms and conditions.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION GEORGE C. MARSHALL SPACE FLIGHT CENTER	ARIZONA BOARD OF REGENTS, ON BEHALF OF UNIVERSITY OF ARIZONA MULTIPLE MIRROR TELESCOPE OBSERVATORY
BY: MARY KOELBL Digitally signed by MARY KOELBL Date: 2022.02.24 12:08:48 -06'00'	BY: Mark Anthony Drury
Mary E. Koelbl Director Engineering Directorate	Mark A Drury Contract Officer
DATE:	DATE: M. A. Drury Digitally signed by M. A. Drury Date: 2022.02.23 14:15:09 -07'00'