

NONREIMBURSABLE SPACE ACT AGREEMENT  
BETWEEN  
THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
GODDARD SPACE FLIGHT CENTER  
AND UNIVERSITY OF NOTRE DAME  
FOR SUPPORTING DEVELOPMENT AND OPERATION OF THE ILOCATER  
SPECTROMETER.

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 Goddard Space Flight Center, located at 8800 Greenbelt Road, Greenbelt, Maryland 20771 (hereinafter referred to as "NASA" or "NASA GSFC") and UNIVERSITY OF NOTRE DAME located at University of Notre Dame, Nieuwland Science Hall, Notre Dame, IN 46556-5670 (hereinafter referred to as "Partner" or "UND"). NASA and Partner may be individually referred to as a "Party" and collectively referred to as the "Parties."

ARTICLE 2. PURPOSE

A new extreme-precision radial-velocity spectrograph, named iLocator, is being developed for installation on the Large Binocular Telescope (LBT) in Arizona. This instrument advances the state of the art of high-performance spectrographs, including use of single-mode optical fibers for source injection, low wavefront error diffraction gratings, mitigation of polarization noise, and use of a state-of-the-art NIR detector. NASA/GSFC is providing the NIR detector and its supporting hardware. GSFC expertise in this area is unmatched, and a detector with the properties needed for iLocator is presently available only from GSFC. The scientific and engineering support effort needed from GSFC is low, as these contributions directly leverage development work recently completed for the Nancy Grace Roman Space Telescope. The iLocator instrument will be a significant advance in the state of the art for studying planets around nearby star and is a pathfinder for even more capable systems envisioned for the support of future large space missions.

ARTICLE 3. RESPONSIBILITIES

A. NASA GSFC will use reasonable efforts to:

1. Loan an integrated detector system for use in the iLocator radial velocity spectrometer. This will include a 4Kx4K near infrared Sensor Chip Assembly (SCA) from the inventory of non-flight SCAs of the Roman Space Telescope project. The detector system also includes readout electronics and cable harness needed to connect the SCA to the readout electronics. These SCAs were custom-built for the Roman Space Telescope mission and are not available commercially.
2. Tune up the detector system so performance is optimized for the iLocator observing mode.

3. Support testing and characterization of the detector system during and after integration into the iLocater instrument.

B. Partner will use reasonable efforts to:

1. Design, fabricate, and integrate the spectrograph and supporting hardware; install the spectrograph into LBT; and subsequent operation.
2. Provide characterization data for the detector system to NASA.
3. Provide the science data from the iLocater observing program to the wider community through the LBT archive and provide pathways for future ingestion into the NASA's NExSci data archive.

#### ARTICLE 4. SCHEDULE AND MILESTONES

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

NASA will identify a Sensor Chip Assembly from its inventory.	Year 1, Q1 upon agreement
NASA will fabricate additional elements required for the detector system	Year 1, Q1 upon agreement
NASA will provide an integrated and tested detector system to UND	Late year 1 (depending on when "year 1" starts)
UND will deliver the iLocater instrument including the detector system to the LBT	NLT end of Year 2
UND will operate the iLocater instruments and provide operational and characterization data to GSFC	Year 2 through end of agreement
UND will notify NASA GSFC if the iLocater detector system fails or if any other issues are encountered during UND's operation of the detector system	Upon acceptance of detector system through end of agreement
UND will provide science data from the iLocater observing program to NASA and the wider astronomy community	Year 2 through 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

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

A. General 1. "Related Entity" as used in this Data Rights Article means a contractor, subcontractor, grantee, or other entity having a legal relationship with NASA or Partner, that is

assigned, tasked, or contracted to perform activities under this Agreement. 2. "Data," means recorded information, regardless of form, the media on which it is recorded, or the method of recording. 3. "Proprietary Data," means Data embodying trade secrets developed at private expense or commercial or financial information that is privileged or confidential, and that includes a restrictive notice, unless the Data is: a. known or available from other sources without restriction; b. known, possessed, or developed independently, and without reference to the Proprietary Data; c. made available by the owners to others without restriction; or d. required by law or court order to be disclosed. 4. Data exchanged under this Agreement is exchanged without restriction except as otherwise provided herein. 5. Notwithstanding any restrictions provided in this Article, the Parties are not restricted in the use, disclosure, or reproduction of Data provided under this Agreement that meets one of the exceptions in 3. above. If a Party believes that any exceptions apply, it shall notify the other Party before any unrestricted use, disclosure, or reproduction of the Data. 6. The Parties will not exchange preexisting Proprietary Data under this Agreement unless authorized herein or in writing by the owner. 7. If the Parties exchange Data having a notice that the Receiving Party deems is ambiguous or unauthorized, the Receiving Party shall tell the Providing Party. If the notice indicates a restriction, the Receiving Party shall protect the Data under this Article unless otherwise directed in writing by the Providing Party. 8. The Data rights herein apply to the 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. 9. Disclaimer of Liability: NASA is not restricted in, or liable for, the use, disclosure, or reproduction of Data without a restrictive notice or for Data Partner gives, or is required to give, the U.S. Government without restriction.

B. Data First Produced by Partner Under this Agreement If Data first produced by Partner or its Related Entities under this Agreement is given to NASA, and the Data is Proprietary Data, and it includes a restrictive notice, NASA will use reasonable efforts to protect it. The Data will be disclosed and used (under suitable protective conditions) only for U.S. Government purposes.

C. Data First Produced by NASA Under this Agreement If Partner requests that Data first produced by NASA under this Agreement be protected, and NASA determines it would be Proprietary Data if obtained from Partner, NASA will use reasonable efforts to mark it with a restrictive notice and protect it for one year after its development. During this restricted period the Data may be disclosed and used (under suitable protective conditions) for U.S. Government purposes only, and thereafter for any purpose. Partner must not disclose the Data without NASA's written approval during the restricted period. The restrictions placed on NASA do not apply to Data disclosing a NASA-owned invention for which patent protection is being considered.

D. Publication of Results The National Aeronautics and Space Act (51 U.S.C. § 20112) requires NASA to provide for the widest practicable and appropriate dissemination of information concerning its activities and the results thereof. As such, NASA may publish unclassified and non-Proprietary Data resulting from work performed under this Agreement. The Parties will coordinate publication of results allowing a reasonable time to review and comment.

E. Data Disclosing an Invention If the Parties exchange Data disclosing an invention for which patent protection is being considered, and the furnishing Party identifies the Data as such when providing it to the Receiving Party, the Receiving Party shall withhold it from public disclosure

for a reasonable time (one (1) year unless otherwise agreed or the Data is restricted for a longer period herein).

F. Copyright Data exchanged with a copyright notice and with no restrictive notice is presumed to be published. The following royalty-free licenses apply: 1. If indicated on the Data that it was produced outside of this Agreement, it may be reproduced, distributed, and used to prepare derivative works only for carrying out the Receiving Party's responsibilities under this Agreement. 2. Data without the indication of F.1. is presumed to be first produced under this Agreement. Except as otherwise provided in paragraph E. of this Article, and in the Inventions and Patent Rights Article of this Agreement for protection of reported inventions, the Data may be reproduced, distributed, and used to prepare derivative works for any purpose.

G. Data Subject to Export Control Whether or not marked, technical data subject to the export laws and regulations of the United States provided to Partner under this Agreement must not be given to foreign persons or transmitted outside the United States without proper U.S. Government authorization.

#### 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. D. With respect to the requirements in Section 889 of the National Defense Authorization Act (NDAA) for Fiscal Year 2019, Public Law 115-232: 1. In performing this Agreement, Partner will not use, integrate with a NASA system, or procure with NASA funds (if applicable), “covered telecommunications equipment or services” (as defined in Section 889(f)(3) of the NDAA). 2. The Partner will ensure that the provisions of this Article apply to its Related Entities.

#### 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 written notice to the other Party as soon as possible, but in no case less than ninety (90) calendar days prior to termination.

#### 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 Goddard Space Flight Center

Rob Petre  
Director of Astrophysics  
8800 Greenbelt Road  
Greenbelt, Maryland 20771  
Phone: 301-286-3844  
Robert.Petre@nasa.gov

##### UNIVERSITY OF NOTRE DAME

Greg Luttrell  
Director, Research Contracts  
940 Grace Hall  
University of Notre Dame  
Notre Dame, IN 46556  
Phone: 574.631.2857  
Greg.Luttrell@nd.edu

#### Technical Points of Contact

##### NASA Goddard Space Flight Center

Jeffrey Kruk  
Science  
8800 Greenbelt Road  
Greenbelt, Maryland 20771  
Phone: 301-286-8758  
Jeffrey.Kruk@nasa.gov

##### UNIVERSITY OF NOTRE DAME

Jonathan Crass  
Instrument Scientist, iLocator Project  
University of Notre Dame  
Nieuwland Science Hall  
Notre Dame, IN 46556-5670  
Phone: 574-631-2712  
j.crass@nd.edu

### 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    UNIVERSITY OF NOTRE DAME  
ADMINISTRATION  
GODDARD SPACE FLIGHT CENTER

BY: \_\_\_\_\_  
Christa D. Peters-Lidard  
Director of Sciences and Exploration

BY:  \_\_\_\_\_  
Greg Luttrell  
Director, Research Contracts

DATE: \_\_\_\_\_

DATE: \_\_\_\_\_