

QUARTERLY METRICS: FY2012 Q1

December 31, 2011

Center for the Advancement of Science in Space (CASIS)

Cooperative Agreement Number NNH11CD70A

Milestones met in 1Q2012 (includes last month of FY2011), as defined in the CASIS Annual Program Plan (APP) are as follows:

- Cooperative Agreement negotiations completed successfully.
- Annual Program Plan was prepared and submitted.
- A web presence was established; work is ongoing for expanded web content.
- Support is provided (ongoing) in planning for AAS Conference to be held June 2011.
- Hiring of senior staff is nearly complete; CASIS currently has 17 staff, with full staffing anticipated at 30-40 individuals; Chief Scientist is remaining senior position to be filled.
- Facilities for corporate headquarters (SLSL) and Houston offices are established.
- Corporate accounting and auditing processes, policies and procedures, bank accounts, fiscal control procedures and accounting information systems are in place.
- Conflict of interest policies and procedures are developed (see below); employee training and disclosure statements are complete.
- Human resource policies and procedures, and organizational values and capabilities are developed and implemented (including drug-free workplace and code of organizational ethics); risk management dashboard monthly process is implemented.
- Contract required policies, procedures and related disclosures are developed (see below).
- Plans for offerings were developed (see below).
- Scope of work for valuation framework was developed (see below).

The following metrics are reported, per the requirements set out in the CASIS APP:

Conflict of interest procedures and plans:

Organizational Conflicts of Interest	Pages 2 – 8
Personal Conflicts of Interest	Pages 9 - 22
Contract required policies and procedures:	Pages 23 - 33
Plans for key offerings	Page 34
Scope of work for valuation framework	Page 35

ORGANIZATIONAL CONFLICT OF INTEREST PLAN

I. Identification of Potential Organizational Conflicts of Interest

The following may have a potential financial or other interest in entities which stand to benefit from the activities of the ISS NL, thus creating the potential for an organizational conflict of interest (“OCI”).

- A. Space Florida. Space Florida sponsored the organization of CASIS as a 501(c)(3) entity, and three members of Space Florida comprise the Interim Board of CASIS until the replacement Initial Board is elected. Space Florida is an Independent Special District of the State of Florida, created to foster the development of the space industry in Florida. Thus, Space Florida may have a potential interest in Florida-based entities that might benefit from use of the ISS NL. In addition, Space Florida has agreed to provide \$1.25 million for the benefit of CASIS, as well as space in the Space Life Sciences Lab facility. As a result, the three Interim Board members may have, or appear to have, conflicts of interest.

- B. Board of Directors. CASIS may have Board members who are affiliated with entities that seek to use the ISS NL, receive grant funding from CASIS, or otherwise have a financial interest in a user of the ISS NL. As a result of these affiliations, Board members may have, or appear to have, conflicts of interest.

- C. Science and Other Collegiums. CASIS shall identify respected members of the scientific and other communities with expertise in all relevant scientific and other disciplines to serve as a “Science Collegium” and other Collegiums. Among other things, members of the Collegiums will be eligible to serve as members of Project Selection Panel (“PSPs”) that will have the responsibility for making recommendations to the Executive Director regarding selection and prioritization. Collegium members may be affiliated with entities that seek to use the ISS NL, receive grant funding from CASIS, or otherwise have a financial interest in a user of the ISS NL. As a result of these affiliations, Collegium members may have, or appear to have, conflicts of interest.

- D. CASIS Subcontractors. CASIS may have subcontractors that may have an organizational conflict because of the subcontractors’ use of the ISS NL, receipt of grant funding from CASIS, or financial interest in a user of the ISS NL or CASIS grant recipient. In particular, CASIS may hire a subcontractor to provide

needed technical or scientific expertise to a PSP or in support of the preparation of a grant solicitation.

- E. CASIS Staff and Donors. CASIS may have staff or donors who are affiliated with entities that seek to use the ISS NL, receive grant funding from CASIS, or otherwise have a financial interest in a user of the ISS NL. As a result of these affiliations, CASIS staff or donors may have, or appear to have, conflicts of interest.

II. Mitigation of Potential OCIs

In order to address the potential conflicts of interests noted above and to prevent the appearance of impropriety in its selection and prioritization decision making, CASIS will implement the following OCI mitigation measures.

- A. Exercise of Subjective Judgment. The principal areas in which CASIS will exercise subjective judgment in connection with the Cooperative Agreement are the preparation of grant solicitations and the selection and prioritization of research projects and grant awards related to the ISS NL.
- B. Preventing Potential Bias in Preparation of Grant Solicitations. CASIS staff personnel may be involved in the process of preparing grant solicitations. In order to mitigate the potential for any potential bias or other conflict of interest, the CASIS Director of Administration will ensure that any staff personnel involved in such drafting are free of any potential conflicts of interest. Before participating in any such preparation, CASIS staff must disclose, in writing, all affiliations with any entities that might have an interest in the grant solicitation and all other potential conflicts of interest. CASIS staff must also supplement this disclosure as changes in actual or potential conflicts occur. If such a conflict or potential conflict exists, the CASIS Director of Administration will firewall the individual from any involvement in the drafting process and forbid the individual from communicating with CASIS staff personnel or subcontractors involved in drafting the grant solicitation.

CASIS may need to hire a subcontractor to provide technical or scientific expertise in drafting grant solicitations. In such situations, the Director of Administration shall guard against potential conflicts of interest by ensuring that: (1) the subcontractor has not sought, and agrees in writing that it will not seek, to receive grant funding from CASIS, or otherwise does not have an interest in any entity seeking grant funding; and (2) the subcontractor personnel comply with section 4.28 (Preventing Personal Conflicts of Interest) of the Cooperative Agreement.

- C. Limiting Subjective Judgment Regarding Selection and Prioritization. Only the PSPs and the Chief Scientist will have the authority to make selection and prioritization recommendations concerning the use of the ISS NL or award of CASIS grants. Only the Executive Director will have the authority to make selection and prioritization decisions concerning the use of the ISS NL or the award of CASIS grants. Board members will not be permitted to make any such recommendations or decisions.
- D. Selection of Project Selection Panel Members Free of Potential Conflicts. In general, PSPs will be composed of Science Collegium and/or other Collegium members. All PSP members will disclose, in writing, all affiliations with other entities and all potential conflicts of interest prior to involvement in a PSP, and when changes occur.

When decisions concerning selection or prioritization of payloads for a flight to the ISS NL or decisions concerning grant funding are to be made, CASIS staff (under the direction of the CASIS Executive Director) will select appropriate individuals to serve on a PSP through a process that includes screening for potential OCIs. At the outset of a PSP selection, CASIS staff will evaluate the disclosed conflicts of interest of potential PSP members and will ensure that a conflicted individual will not be selected to serve as a member of a PSP. This PSP screening would apply to all PSP members regardless of an individual's status within CASIS, affiliation with a member, or affiliation with a donor. CASIS Board members will not be eligible to serve on a PSP. All PSP members will comply with section 4.28 (Preventing Personal Conflicts of Interest) of the Cooperative Agreement. In the event that CASIS is unable to identify a PSP member with the necessary expertise who is free of an OCI, the potential PSP member will remain eligible to serve if (1) a firewall exists between that person and the conflicted entity, and (2) CASIS follows the recusal procedures in the following paragraph.

In the event that a PSP is convened, and it comes to light during the activities of the PSP that a PSP member has an organizational conflict of interest, the member will be recused from considering the proposal from the member's affiliated organization. The recused member shall not (1) evaluate the proposal from the affiliated organization; (2) participate in any PSP discussions or communications about said proposal concerning evaluation or prioritization; (3) participate in project review of said proposal; or (4) participate in PSP discussions or communications where any other conflict involving said proposal has been identified.

If CASIS determines that a PSP member has perceived or actual organizational or personal conflicts that were known by the individual and undisclosed, the PSP member shall immediately be dismissed from all PSPs and the Science or other Collegiums, and shall not participate in any future CASIS selection or prioritization recommendations.

- E. Executive Director, Chief Scientist, and CASIS Staff. As the CASIS personnel with principal responsibility for recommendations and decisions concerning selection and prioritization, the CASIS Executive Director and Chief Scientist shall be free of any potential conflicts. The Executive Director and Chief Scientist of CASIS shall not be affiliated with entities that seek to use the ISS NL, receive grant funding from CASIS, or otherwise have a financial interest in a user of the ISS NL, and shall annually sign a certification to that effect.

CASIS staff personnel may also play a more limited role in the PSP process, principally by preparing information for consideration by the PSP, Chief Scientist, and Executive Director, and in taking steps to assist in convening a PSP. Before participating in any such PSP-related activities, CASIS staff must disclose, in writing, all affiliations with entities that seek to use the ISS NL, receive grant funding from CASIS, or otherwise have a financial interest in a user of the ISS NL, and all other potential conflicts of interest. If such a conflict or potential conflict exists, the individual shall be firewalled from any involvement in PSP-related activities, and (1) shall have no role in such activities, and (2) shall be forbidden from seeking to communicate with CASIS staff personnel or subcontractors involved in the selection or prioritization process.

- F. Firewall to Prevent Improper Influence. Non-public information involving the selection process or prioritization decisions will be “firewalled” within CASIS and the PSP members. The CASIS Director of Administration will be charged with protecting all non-public information involving selection and prioritization to ensure that no individual or organization will have an improper influence on, or provide improper information to, PSP members, the Executive Director, the Chief Scientist, or subcontractors providing support to the PSP. The Director of Administration also shall take steps to ensure that PSP members do not have access to records of the specific amounts given by any donors or CASIS members whose projects or applications may be under consideration by the PSP. The PSP members, Executive Director, Chief Scientist, and subcontractors providing support to the PSP will be instructed that they should not consider any information in making selection or prioritization recommendations or decisions other than the criteria specified by CASIS.

PSP members and subcontractors providing support to the PSP will be required to sign confidentiality agreements in which they will agree not to disclose or discuss any information regarding the selection process with non-PSP members. This

strict firewall shall prevent any persons and entities that might have an interest in the ISS NL, such as CASIS members or donors, from influencing the process and, thus, should preclude a conflict from occurring. If CASIS determines that a PSP member has disclosed or discussed such information regarding selection or prioritization with non-PSP members, the member shall immediately be dismissed from all PSPs and the Science or other Collegiums, and shall not participate in any future CASIS selection or prioritization recommendations.

Additionally, the firewall will ensure that CASIS employees, officers, Directors, subcontractors, and others are prohibited from discussing confidential investigator or project information pertaining to selection and prioritization with members of the PSP, the Executive Director, the Chief Scientist, and subcontractors providing support to the PSP or attempting to improperly influence them. CASIS Directors and officers will be required to review the OCI policy, and sign an OCI agreement. All CASIS employees will receive training regarding the OCI policy and will be required to sign an OCI agreement.

- G. Contracting For PSP Expertise. CASIS will use its best efforts to staff PSPs with Science and other Collegium members who have expertise in all the required scientific and other disciplines to permit informed decisions. Where necessary, however, CASIS may hire a subcontractor to provide additional technical, scientific, or other expertise, and to assist in the development and/or convening of a PSP. In all such situations, the Director of Administration shall ensure (1) that the subcontractor does not seek to use the ISS NL, receive grant funding from CASIS, or otherwise have a financial interest in a user of the ISS NL; (2) that the panel members selected by the subcontractor are not affiliated with entities that seek to use the ISS NL, receive grant funding from CASIS, or otherwise have a financial interest in a user of the ISS NL; and (3) that the panel members selected by the subcontractor comply with section 4.28 (Preventing Personal Conflicts of Interest) of the Cooperative Agreement.

In the event that a CASIS subcontractor has an OCI, CASIS may use that subcontractor if CASIS ensures that (1) all PSP-related activities are performed by a lower tier subcontractor that is free from conflict, and (2) there is a firewall between the subcontractors regarding information about the PSP activities.

- H. Space Florida Transition. Once NASA announced that it intended to award CASIS the Cooperative Agreement, the Interim Board (consisting of three Space Florida personnel) hired new management to replace all Space Florida personnel as the officers and management of CASIS. As of July 27, 2011, no Space Florida personnel serve as officers or management of CASIS.

The three Space Florida personnel on the Interim Board of CASIS will relinquish their positions as Board members as soon as the new Initial Board is elected (unless any of them are selected as Board members through the Board election process).

Before the new Initial Board is in place, the three members of the Interim Board will not make any decisions regarding the ISS NL, including decisions concerning selection or prioritization or decisions concerning the drafting of grant solicitations.

- I. **No Royalties.** In accordance with NASA's interpretation of Section 504 of Public Law 111-267, CASIS will not take any financial interest in any ISS NL beneficiary or the results of their on-orbit activities, through a royalty arrangement.

III. **Administrative Provisions**

- A. **Reporting.** The CASIS Director of Administration will report any OCIs to the Board in writing at its regular meetings. Each report shall include (1) a description of the conflict, and (2) the method by which the conflict was resolved.
- B. **Revisions.** The CASIS Director of Administration will review the OCI Mitigation Plan at least annually to address specific OCIs and to determine if there are new or unaddressed OCIs. Any revisions must be approved by the NASA CATO and incorporated into the Cooperative Agreement.
- C. **Business Intake.** The CASIS Director of Administration will be responsible for screening new opportunities and contracts for actual and potential OCIs. Upon identifying an OCI, steps will be taken, under direction of the Executive Director, to ensure that the member, contractor, or other entity is subject to the OCI mitigation plan.
- D. **Flow Down.** When the possibility of an OCI exists, CASIS will ensure that OCI prevention and mitigation requirements flow down to affected subcontractors at any tier. Subcontractors will be required to analyze and identify any potential OCIs and deliver a plan to resolve such conflicts to CASIS. CASIS will seek to avoid entering into agreements with subcontractors at any tier with potential or actual conflicts of interest.
- E. **Training.** All CASIS personnel are required to participate in a training program on the objectives, elements, and importance of the OCI Mitigation Plan. All new

personnel shall be trained on the requirements of the Plan within two weeks of employment and every year thereafter. Personnel will receive training materials and be required to sign a statement confirming their understanding of the responsibilities and restrictions they assume under the Plan. This form will be kept in each employee's personnel file. All employees will also be required to participate in an exit interview and sign an exit interview acknowledgement.

- F. Organizational and Employee Sanctions. Employees will be informed that any OCI policy violation may result in termination, and Board members will be informed that any OCI policy violation may be cause for removal. CASIS members who violate the OCI policy or engage in any improper attempt to influence the PSP, the Chief Scientist, or the Executive Director, may have their membership agreement terminated. Subcontractors may be terminated based on any violation of the OCI policy or any improper attempt to influence the PSP, the Chief Scientist, the Executive Director, or the drafting of a grant solicitation.

- G. Self-Audits. CASIS will conduct an annual audit verifying adherence to the OCI Mitigation Plan. The Director of Administration shall ensure that such audit is conducted by an independent organization. Audit team members will review records, interview program personnel, examine physical controls, review employee inputs, and take other steps as deemed necessary. CASIS will require all employees to affirm annually their compliance with the OCI policy and mitigation plan. Audit findings will be documented, and a report provided to the CASIS Board of Directors and made available to the CATO upon request. Upon completion of the annual audit, a certification of compliance will be signed annually, for as long as the Plan is in existence, by the CASIS Director of Administration.

- H. Records. CASIS will maintain records relating to this OCI Mitigation Plan for review by NASA upon request. These records will include the following:
 - 1. CASIS Reports of OCIs
 - 2. All contracts and subcontracts with OCI provisions
 - 3. Records reflecting employee training and certifications
 - 4. Any sanctions or other actions taken with respect to employees, contractors or others as a result of OCI violations
 - 5. The results of all self-audits
 - 6. All OCI certifications

PERSONAL CONFLICTS OF INTEREST PLAN

The Center for the Advancement of Science in Space, Inc. ("CASIS") is committed to preventing personal conflicts of interest. This Personal Conflict of Interest Policy applies to all Covered Persons of CASIS.

I. Definitions

"Covered Person" - An individual who: (1) is an officer or employee of CASIS, or a CASIS subcontractor, consultant, partner, or sole proprietor; and (2) performs a function involving subjective judgment or has access to confidential information obtained from or through CASIS. CASIS Collegium members and members of the CASIS Board of Directors are considered Covered Persons.

"Family Member" - A spouse, domestic partner, ancestor, sibling, child, or other descendant of a Covered Person, or a spouse or domestic partner of a sibling, child, grandchild or great grandchild of a Covered Person.

"Interested Person" - A Covered Person, a Family Member, or an entity in which a Covered Person or Family Member holds, directly or indirectly, a material financial ownership or management interest.

"Non-public information" - Any information that a Covered Person gains by reason of work under the NASA Cooperative Agreement that the Covered Person knows, or reasonably should know, has not been made public.

"Subjective judgment" - Involves the use of attitudes, beliefs and opinions, giving the individual latitude in executing CASIS's responsibilities under the Cooperative Agreement. The following activities involve subjective judgment: selection; prioritization; and preparation of grant solicitations.

II. Conflicts of Interest

A conflict of interest may exist when the interests or concerns of a Covered Person or Family Member may be seen as competing with the interests or concerns of CASIS. In particular, a conflict of interest may exist when a Covered Person or Family Member has a financial interest, personal activity, or relationship that could compete with or impair the Covered Person's ability to act impartially and in the best interest of CASIS and the Government when performing under

the Cooperative Agreement. There are a variety of situations that raise conflict of interest concerns including, but not limited to, the following:

Financial Interests. A conflict of interest may exist where an Interested Person directly or indirectly benefits or profits as a result of a decision made or transaction entered into by CASIS. Financial interests may arise from the following, among others:

- Compensation, including wages, salaries, commissions, professional fees, or fees for business referrals;
- Consulting relationships (including commercial and professional consulting and service arrangements, scientific and technical advisory board memberships, or serving as an expert witness in litigation);
- Other employment or financial relationships, including seeking or negotiating for prospective employment or business;
- Services provided in exchange for honorariums or travel expense reimbursements;
- Research funding or other forms of research support;
- Investment in the form of stock or bond ownership or partnership interest (excluding diversified mutual fund investments);
- Real estate investments;
- Patents, copyrights, and other intellectual property interests;
- Business ownership and investment interests; or
- Gifts, including travel.

Examples include situations where:

- CASIS contracts to purchase or lease goods, services, or properties from an Interested Party;
- CASIS makes a decision concerning a grant to, or use of the ISS NL by, an entity owned or managed by an Interested Party;
- CASIS offers employment to a Covered Person or Family Member other than a person who is already employed by CASIS;
- An Interested Party is provided with a gift, gratuity, or favor of a substantial nature (*i.e.*, not of a nominal or de minimis nature) from a person or entity that does business or seeks to do business with CASIS; or
- An Interested Party is gratuitously provided use of the facilities, property, or services of CASIS.

Other Interests. A conflict of interest may also exist where an Interested Person obtains a non-financial benefit or advantage that would not have been obtained absent the Covered Person's relationship with CASIS or where the Covered Person's duty or responsibility owed to CASIS conflicts with a duty or responsibility owed to some other organization. Examples include situations where:

- A Covered Person or Family Member seeks to obtain preferential treatment by CASIS for himself or herself or an Interested Party;
- A Covered Person or Family Member seeks to make use of confidential information obtained from CASIS for his or her own benefit or for the benefit of an Interested Person;
- A Covered Person or Family Member seeks to take advantage of an opportunity, or enable an Interested Person to take advantage of an opportunity, that he or she has reason to believe would be of interest to CASIS.

III. Disclosure Statement

Each Covered Person shall complete a Conflict of Interest Disclosure Statement, in the form attached hereto as Appendix A, to disclose fully and completely the material facts about any actual or potential conflicts of interest he or she might have. The form shall be completed upon his or her association with CASIS, and shall be updated annually thereafter. A Covered Person shall also update his or her disclosure form whenever the individual's personal or financial

circumstances change in such a way that a new personal conflict of interest might occur, or at such time as an actual or potential conflict arises. The disclosure statements shall be provided to and reviewed by the Director of Administration or Compliance Officer, except that the Director of Administration's or Compliance Officer's disclosure statement shall be provided to and reviewed by the CASIS Board. The Director of Administration or Compliance Officer shall cause copies of all disclosure statements to be filed with the official corporate records of CASIS.

IV. Obligations of Covered Persons

All Covered Persons must:

- Prevent personal conflicts of interest;
- Disclose any actual or potential conflict of interest as soon as it is known or reasonably should be known;
- Never use non-public information for personal gain; and
- Avoid even the appearance of personal conflicts of interest.

V. Obligations of CASIS

CASIS shall prevent personal conflicts of interest, including by not assigning or allowing a Covered Person to perform a function involving the use of subjective judgment if CASIS has identified a personal conflict of interest for the employee that CASIS or the employee cannot satisfactorily prevent or mitigate in consultation with the Grants Officer.

CASIS shall prohibit the use of non-public information for personal gain, and shall require all employees to sign a non-disclosure agreement to prohibit the disclosure of non-public information.

The Director of Administration or Compliance Officer of CASIS shall maintain effective oversight of CASIS to verify compliance with this Policy.

VI. Procedures for Reviewing and Addressing of Actual or Potential Conflicts

Whenever there is reason to believe that an actual or potential conflict of interest exists between CASIS and a Covered Person (other than a CASIS officer or Board member), the Director of Administration or Compliance Officer shall generally be responsible for reviewing the matter and determining an appropriate organizational response to protect the interests of CASIS. If

there is reason to believe that the Director of Administration, Compliance Officer, or a CASIS officer or Board member may have an actual or potential conflict, the Board shall be responsible for such a review and response. This response may include, but is not necessarily limited to, further review by the CASIS Executive Director, the CASIS Board, or the NASA Grants Officer, or invoking the mitigation/waiver procedures described in Section VII below.

If it is determined that an actual or potential conflict of interest exists with respect to a specific proposed action or transaction, CASIS shall refrain from the proposed action or transaction until such time as the proposed action or transaction has been determined not to be a conflict, or the affected individual's involvement in the proposed action or transaction has been ceased and firewalled by the Director of Administration or Compliance Officer, or the conflict has been otherwise resolved.

In reviewing and addressing conflicts, CASIS shall generally follow the following procedures.

A. Personal Conflicts Involving Officers and Directors

- An officer or director who has an actual or potential conflict of interest with respect to a proposed action or transaction of CASIS shall not participate in any way or be present during the deliberations and decision making of CASIS with respect to such action or transaction. The conflicted Covered Person may, upon request, be available to answer questions or provide material factual information about the proposed action or transaction.
- The disinterested members of the Board may approve the proposed action or transaction upon finding that it is in the best interests of CASIS. The Board shall consider whether the terms of the proposed action or transaction are fair and reasonable to CASIS and whether it would be possible, with reasonable effort, to find a more advantageous arrangement with a party or entity that is not an Interested Party.
- Approval by the disinterested members of the Board shall be by vote of a majority of directors in attendance at a meeting at which a quorum is present. A director who has an actual or potential conflict of interest with respect to a proposed action or transaction of CASIS shall not be counted for purposes of determining whether a quorum is present, nor for purposes of determining what constitutes a majority vote of directors in attendance.
- The minutes of the meeting shall reflect that the conflict of interest disclosure was made, the vote taken and, where applicable, the abstention from voting and participation by the conflicted Covered Person.

B. Personal Conflicts Involving Other Covered Persons

- Upon identification of an actual or potential conflict of interest with a proposed action or transaction, the Director of Administration or Compliance Officer shall inform the particular conflicted Covered Person to cease involvement in such action or transaction. Further, the Director of Administration or Compliance Officer shall inform other individuals involved in the action or transaction to not include the conflicted Covered Person in any further discussions related to the action or transaction. Any exception to this firewalling must be consistent with the CASIS Organizational Conflict of Interest Mitigation Plan. If the conflict involves the Director of Administration or Compliance Officer, the Executive Director will be responsible for executing the firewall procedures.
- A Covered Person who has an actual or potential conflict of interest with respect to a proposed action or transaction of CASIS shall not participate in any way or be present during the deliberations and decision making of CASIS with respect to such action or transaction.
- A Covered Person who has been firewalled from involvement in an action or a transaction shall not in any way attempt to influence other CASIS employees or third parties involved in the action or transaction.
- The procedures for addressing conflicts of interest for Covered Persons and other potential organizational conflicts are further addressed in the CASIS Organizational Conflict of Interest Mitigation Plan.

VII. Mitigation or Waiver

In exceptional circumstances, if CASIS cannot satisfactorily prevent a personal conflict of interest as required by this policy, CASIS may submit a request through the NASA Grants Officer for agreement to a plan to mitigate the personal conflict of interest, or a waiver of the requirement concerning personal conflicts of interest.

VIII. Subcontracting

CASIS will include the substance of this policy in subcontracts as appropriate.

IX. Reporting of De Minimis Conflicts

CASIS will notify the NASA Grants Officer of any de minimis conflict a Covered Person may have. A conflict is considered de minimis if the aggregate value belonging to a Covered Person, the spouse, and the minor children in the following holdings does not exceed \$15,000:

- Publicly traded securities,
- Long-term Federal Government securities, and
- Municipal securities

X. Violations of Personal Conflict of Interest Policy

If the Director of Administration, Compliance Officer, or Board has reason to believe that a Covered Person has failed to disclose an actual or potential conflict of interest or otherwise violated this Policy, the Director of Administration, Compliance Officer, or Board shall inform the person of the basis for such belief and afford the person an opportunity to explain the alleged failure to disclose.

If, after hearing the response of the Covered Person and making such further investigation as may be warranted in the circumstances, the Director of Administration, Compliance Officer, or Board determines that the Covered Person has in fact failed to disclose an actual or possible conflict of interest or otherwise violated this Policy, they shall take or direct appropriate disciplinary and corrective action.

CASIS shall report to the NASA Grants Officer any personal conflict of interest violation by a Covered Employee as soon as it is identified. This report shall include a description of the violation and the actions taken by CASIS in response to the violation. Such reportable violations include: (i) failure of a Covered Person to disclose a personal conflict of interest; and (ii) use by a Covered Person of non-public information for personal gain.

APPENDIX A

Conflict of Interest Disclosure Statement

I have received and carefully read the CASIS Personal Conflict of Interest Policy and have considered not only the literal expression of the policy but also its intent. By signing this affirmation of compliance, I hereby affirm that I understand and agree to comply with the CASIS Personal Conflict of Interest Policy.

Except as otherwise indicated in this Conflict of Interest Disclosure Statement or any attachments hereto, I hereby state that I do not, to the best of my knowledge, have any conflict of interest that may be seen as competing with the interests of CASIS, nor does a Family Member, or an entity in which I or a Family Member holds, directly or indirectly, a material financial ownership or management interest (all collectively referred to as an "Interested Person") have such an actual or potential conflict of interest.

If any situation should arise in the future that I think may involve me in a conflict of interest, I will promptly and fully disclose the circumstances to the CASIS Director of Administration, the CASIS Compliance Officer, or the CASIS Board of Directors.

I further certify that the information set forth in this Conflict of Interest Disclosure Statement and attachments hereto, if any, is true and correct to the best of my knowledge, information, and belief. I also certify that I commit to providing an updated form to the CASIS Director of Administration or Compliance Officer whenever a material change occurs in the information I have provided.

Signature

Printed Name

Date

DEFINITIONS: For purposes of this Disclosure Statement,

- A “*Family Relationship*” or a “*Family Member*” includes a spouse, domestic partner, ancestor, sibling, child, or other descendant of a person, or a spouse or domestic partner of a sibling, child, grandchild or great grandchild of a person.
- To “*Transact Business*” involves payment(s) from a business transaction (regardless of when it was entered into, other than the payment of dues to CASIS) between CASIS and you or an Interested Person including, but not limited to, a sale, lease, license, or performance of services, or from a joint venture in which both CASIS and you or an Interested Person owned more than a 10% capital or profits interest.
- An “*Interested Person*” with regard to Transacting Business is a Family Member of yours, or either of the following:
 - an entity that is more than 35% owned (or more than 35% controlled, if a nonprofit corporation), directly or indirectly, individually or collectively, by (i) you or one of your Family Members and (ii) one or more other people who was an Officer, director, trustee, or key employee of CASIS between during the last 5 fiscal years, or a Family Member of any of those other people, or
 - an entity (other than a tax-exempt organization) for which you were, or a Family Member was, serving at the time of a business transaction as (i) an Officer, (ii) a director, (iii) a trustee, (iv) a **key** employee, or (v) a partner or member (or shareholder in a professional corporation) with a more than 5% ownership interest (including ownership by a Family Member).

QUESTIONS:

Answer the following questions. Use additional sheets or attachments if necessary.

1. Provide the following background information:

Your Name: _____

Your Employer: _____

Your Relationship to CASIS: _____

2. To the best of your knowledge, did you or a Family Member at any time during the past twelve months receive compensation from CASIS as a full or part-time employee, or as an independent contractor?

Yes () No ()

If yes, please describe.

3. To the best of your knowledge, during the past twelve months, did CASIS Transact Business with you, a Family Member, or an Interested Person?

Yes () No ()

If yes, please describe.

4. To the best of your knowledge, are you now, or were you at any time during the past twelve months, a Family Member of any of the other directors, officers, employees, or independent contractors of CASIS?

Yes () No ()

If yes, please describe.

5. To the best of your knowledge, do you or a Family Member now, or did you or a Family Member at any time during the past twelve months, have one of the following "business relationships" with a director, officer employee, or independent contractor of CASIS?

a. One person is employed by the other person individually or by an entity with which the other person is a director, trustee, officer, key employee, or a greater-than-35% owner;

b. One person is transacting business with the other person (*other than in the ordinary course of either party's business on the same terms as are generally offered to the general public*), directly or indirectly (i.e., transactions with an organization with which the one person is a director, trustee, officer, key employee, or greater than 35% owner), in one or more contracts of sale, lease, license, loan, performance of services, or other transaction involving transfers of cash or property valued in excess of \$10,000 in the aggregate during the organization's tax year; or

c. The two people are each a director, trustee, officer, or greater than 10% owner in the same business or investment entity.

Ownership is measured by stock ownership (either voting or value) of a corporation, profits or capital interest in a partnership or limited liability company, membership interest in a nonprofit organization, or beneficial interest in a trust. Ownership includes indirect ownership (e.g., ownership in an entity that has ownership in the entity in question); there may be ownership through multiple tiers of entities.

Privileged Relationship Exception – For purposes of this question, a business relationship does not include a relationship between an attorney and client, a medical professional (including a psychologist) and patient, or a priest/clergy and penitent/communicant.

Yes () No ()

If yes, please describe.

6. To the best of your knowledge, was there outstanding at any time during the past twelve months, a loan, advance, or any amount receivable, between CASIS and you, a Family Member, or any entity more than 35% owned or controlled by you or such Family Member, but not advances under an accountable plan, outstanding charitable pledges, and receivables created in the ordinary course of business of CASIS on terms available to the public?

Yes () No ()

If yes, please describe.

7. To the best of your knowledge, has CASIS offered employment to you, a Family Member, or any Interested Person, other than a person who was already employed by CASIS, at any time during the past twelve months?

Yes () No ()

If yes, please describe.

8. To the best of your knowledge, have you, a Family Member, or any entity more than 35% owned or controlled by you or a Family Member, received during the past twelve months from CASIS any grant, award, or other non-compensatory benefits of any amount, including the provision of goods or services, or the use of facilities? (Grants include scholarships, fellowships, internships, prizes and awards, and the gift portion of a part-sale, part-gift transaction).

Yes () No ()

If yes, please describe.

9. To the best of your knowledge, did you take advantage of an opportunity or enable any Family Member or Interested Person to take advantage of an opportunity that you had reason to believe would be of interest to CASIS at any time during the past twelve months?

Yes () No ()

If yes, please describe.

10. To the best of your knowledge, do you, a Family Member, or any Interested Person have a financial interest in, or other relationship with, any person or for-profit or nonprofit entity that might be directly or indirectly benefited in any way by the activities of CASIS?

Yes () No ()

If yes, please list the name of each person or entity and provide a brief description of the financial interest or relationship.

11. To the best of your knowledge, within the next 12 months, do you, a Family Member, or any Interested Person anticipate having a financial interest in, or other relationship with, any person or for-profit or nonprofit entity that might be directly or indirectly benefited in any way by the activities of CASIS?

Yes () No ()

If yes, please list the name of each person or entity and provide a brief description of the financial interest or relationship.

12. Are you aware of any activity of any Family Member or Interested Person that may conflict, or appear to conflict, with the policies or activities of CASIS?

Yes () No ()

If yes, please describe.

13. Are you involved in any other personal relationship, activity, or interest that may raise an actual or apparent conflict of interest or impair your ability to act impartially and in the best interests of CASIS and the government with respect to any policies, issues, duties, or activities related to CASIS?

Yes () No ()

If yes, please describe.

14. To the best of your knowledge, are you, a Family Member, or any Interested Person, a board member of a scientific or technical organization?

Yes () No ()

If yes, please describe.

SUBCONTRACT AGREEMENTS

THIS SUBCONTRACT AGREEMENT (the "Agreement") is entered into between the Center for the Advancement of Science in Space ("CASIS"), and _____ (the "Subcontractor").

WHEREAS, CASIS has received a cooperative agreement from NASA, No. NNH11CD70A (the "Cooperative Agreement"); and

WHEREAS, pursuant to the Cooperative Agreement, CASIS is responsible for maximizing the value of the investment the U.S. Government has made in the International Space Station National Laboratory ("ISS NL") and demonstrating the scientific and technological productivity of the ISS NL over the next decade (the Project"); and

WHEREAS, CASIS wishes to engage the services and efforts of the Subcontractor in connection with the Cooperative Agreement and in furtherance of the Project;

NOW THEREFORE, in consideration of the mutual agreements and promises contained herein, CASIS and the Subcontractor agree as follows:

ARTICLE 1: SCOPE OF WORK

1.1 Subcontractor shall supply all of the necessary personnel, equipment, and materials, except as otherwise may be provided herein, to perform the services set forth on Appendix A, which is attached hereto and incorporated herein by reference (hereinafter referred to as the "Scope of Work"). The Scope of Work shall set forth all services, research tasks, and other items that are the subject of this Agreement, including all deliverables, deliverables timelines, budgets, and payment terms. The parties agree that the schedule of deliverables, deliverables timelines, budgets, and payment terms, and any other provisions in the Scope of Work, are integral parts of the Agreement.

ARTICLE 2: SUPERVISION

2.1 CASIS shall retain the responsibility for supervision of the Scope of Work and all activities and performance of the Subcontractor. Any change to the Scope of Work must be approved, in writing, by CASIS.

ARTICLE 3: KEY PERSONNEL

3.1 The Subcontractor personnel identified below (if any) are considered to be essential to the work performed hereunder. In the event any personnel identified here terminates employment with the Subcontractor

or is reassigned to another program, the Subcontractor shall notify CASIS in writing. Any individual appointed to replace any key person(s) must have the prior written approval of CASIS.

ARTICLE 4: PAYMENT

4.1 As consideration for Subcontractor's performance hereunder, CASIS will pay Subcontractor the amounts and in the manner specified in the Scope of Work. Requests for payment shall be submitted to CASIS and shall reference this Agreement.

4.2 To the extent that the Scope of Work specifies that a fixed price is to be paid by CASIS for the work performed under this Agreement, Subcontractor's invoices shall reflect summary detail, by budget category, of the amounts due.

4.3 To the extent that the Scope of Work specifies that Subcontractor is to be reimbursed for its costs incurred for the work performed under this Agreement, Subcontractor's invoices shall reflect summary detail, by budget category, of the costs incurred and the amounts due.

4.4 The total amount due to Subcontractor under this Agreement, including both direct and indirect costs, for performing the Scope of Work shall not exceed the amount set forth in the Scope of Work. CASIS shall not, in the absence of an agreed upon written modification hereto, be obligated to reimburse Subcontractor for costs incurred by Subcontractor which are in excess of the total cost specified in the Scope of Work, or in excess of the fixed price specified in the Scope of Work. Subcontractor may not deviate significantly from the major line items of the budget described in the Scope of Work unless specifically approved in writing in advance by CASIS.

4.5 Any payment by CASIS shall at all times thereafter be subject to audit by CASIS as to correctness thereof and appropriate adjustments thereto. All costs incurred and payments made under this Agreement shall be subject to audit by the cognizant Federal Audit Agency, NASA, and/or CASIS, and Subcontractor agrees to permit NASA and/or CASIS or government auditors access to its records, including copies thereof. Subcontractor shall compensate CASIS for any refunds to NASA which may be required of CASIS as a result of any disallowance of costs of Subcontractor.

ARTICLE 5: TERM AND TERMINATION

5.1 The term of and performance under this Agreement shall commence on _____ and end on _____. Performance under this Agreement shall not extend beyond the termination date unless the period is extended through mutual agreement in writing and signed by both parties.

5.2 This Agreement may be terminated without cause by CASIS upon 30 days prior written notice.

5.3 In the event that either party shall be in breach of its material obligations under this Agreement and fail to cure such breach within 30 days after receipt of written notice thereof, this Agreement may be terminated upon written notice at the option of the non-breaching party upon the expiration of the 30 day period. In the event that Subcontractor breaches this Agreement, nothing in this Agreement shall be construed to operate as a waiver of any contractual or legal remedies that CASIS may have.

5.4 Termination of this Agreement shall not affect the rights and obligations of the parties that accrued prior to the termination. Upon termination, CASIS shall pay Subcontractor for all reasonable costs incurred or committed to be expended as of the effective termination date, or the amounts due under the fixed price terms in the Scope of Work for the work performed to date.

ARTICLE 6: INDEPENDENT CONTRACTORS

6.1 The relationship between CASIS and Subcontractor is that of independent contractors. The parties are not joint venturers, partners, principal and agent, master and servant, employer or employee, and have no other relationship other than independent contracting parties. The parties shall have no power to bind or obligate the other party in any manner, except as expressly provided in this Agreement or authorized in writing.

ARTICLE 7: REPORTS AND ACCESS TO RECORDS

7.1 Subcontractor is responsible to CASIS for making the following reports:

(a) reports as set forth in the Scope of Work; and (b) any other reports that may be required by NASA or by government regulation.

7.2 If requested by CASIS, Subcontractor shall provide a copy of its most recent audited financial statement/audit report.

7.3 Subcontractor shall retain all records and reports prepared or received in connection with this Agreement for a period of 3 years following completion of this Agreement.

ARTICLE 8: INSURANCE AND INDEMNIFICATION

8.1 Unless Subcontractor is an agency of the federal or any state government, during the term of this Agreement Subcontractor shall, at its sole expense, obtain and maintain the following commercial insurance: (a) workers' compensation insurance as required by the laws of its state of incorporation or state of business operations, as well as employer's liability coverage with policy limits sufficient to provide coverage adequate for the work to be performed hereunder; (b) commercial general liability insurance with policy limits sufficient

for the work to be performed hereunder; and, if applicable, (c) automobile liability insurance for owned, hired, and non-owned commercial vehicles used in connection with this Agreement with policy limits sufficient for the work to be performed hereunder.

8.2 Unless Subcontractor is an agency of the federal or any state government, Subcontractor shall indemnify, protect, defend, and hold harmless CASIS and its directors, officers, agents, employees, representatives, and assigns, from and against any and all claims, demands, suits, and causes of action and any and all liabilities, costs, damages, expenses, and judgments incurred in connection therewith (including but not limited to reasonable attorney's fees and court costs), whether arising in equity, at common law or by statute, or under the law of contracts, torts or property, relating to or arising out of the acts or omissions of Subcontractor or in connection with Subcontractor's performance under this Agreement.

8.3 CASIS will be responsible for the negligent conduct of its directors, officers and employees arising out of the performance of this Agreement, in proportion to and to the extent that such liability for damages is caused by or results from the acts of CASIS, and its directors, officers, or employees.

8.4 In the event Subcontractor is an agency of the federal or any state government, nothing herein shall constitute a waiver of sovereign immunity or limits of governmental liability that are set forth in applicable federal or state law. Subcontractor will be responsible for the negligent conduct of its officers and employees arising out of the performance of this Agreement to the extent permitted by applicable federal or state law.

ARTICLE 9: INCORPORATION OF PROVISIONS OF COOPERATIVE AGREEMENT

9.1 All applicable provisions of the Cooperative Agreement between CASIS and NASA, which is attached hereto and incorporated herein by reference as Appendix B, shall be binding upon Subcontractor. Further, Subcontractor agrees to comply with the requirements and standards of all OMB Circulars applicable to this Agreement, including OMB Circular A-110, as adopted by NASA as subpart B of Part 1260 of Title 14 of the Code of Federal Regulations. With respect to applying terms and conditions found in the Cooperative Agreement to this Agreement, unless the context clearly indicates otherwise, the word "recipient" shall refer to CASIS and the word "subcontractor" shall refer to Subcontractor. It is the intent of the parties that this Agreement shall not contain anything inconsistent with the Cooperative Agreement.

9.2 All cost reimbursement Subcontracts are subject to those Federal cost principles applicable to the Subcontractor. Thus, if Subcontractor is a non-profit organization, Circular A-122 shall apply; if Subcontractor is a commercial organization, the cost principles applicable to commercial concerns shall apply; if Subcontractor is a college or university, Circular A-21 shall apply; if Subcontractor is a State, local, or federally-recognized Indian tribal government, Circular A-87 shall apply.

ARTICLE 10: INTELLECTUAL PROPERTY AND CONFIDENTIAL INFORMATION

10.1 Marking Subcontractor Intellectual Property. In the event that Subcontractor provides CASIS with any information or documents that represent Subcontractor's trade secrets, confidential information, or other forms of intellectual property (collectively the "Subcontractor Intellectual Property"), all such Subcontractor Intellectual Property, in whatever format provided, shall be clearly marked or identified as such by Subcontractor at or before the time it is provided to CASIS.

10.2 Protection of Intellectual Property and Confidential Information. The parties may disclose confidential information to each other in connection with work contemplated by this Agreement. Each party will use reasonable efforts to prevent the disclosure of the other party's confidential information to third parties for a period of two (2) years following the termination of this Agreement, except that this obligation shall not apply to information that: (a) is already in the recipient's possession at the time of disclosure; (b) is or later becomes part of the public domain through no fault of the recipient party; (c) is received from a third party who has no obligation of confidentiality; (d) is independently developed by the recipient party; or (e) is required to be disclosed by law or regulation or upon the order of a court of competent jurisdiction.

10.3 CASIS Confidentiality Agreement. Subcontractor agrees to execute and comply with the standard CASIS Confidentiality Agreement, and agrees that as applicable, its employees who will perform work under this Agreement will also execute and comply with the standard CASIS Confidentiality Agreement.

10.4 Ownership and Rights. Subcontractor agrees that all intellectual property, including, but not limited to, invention, patent, copyright, trademark, trade secret, and mask work rights, originated, conceived, written, or made by the Subcontractor in performance of Subcontractor's duties and responsibilities under this Agreement are the exclusive property of CASIS. Subcontractor hereby assigns and transfers the rights to all such intellectual property to CASIS and will execute all documents necessary for such assignment and transfer. [TO BE NEGOTIATED WITH SUBCONTRACTOR]

10.5 Works Made for Hire. Subcontractor agrees that all works originated, conceived, written, or made by Subcontractor in the performance of this Agreement are "works made for hire" under the United States Copyright Act and are the exclusive property of CASIS. In the event the works are determined not to be "works made for hire," Subcontractor hereby assigns and transfers all proprietary rights to CASIS and will execute all documents necessary for such assignment and transfer.

ARTICLE 11: MANDATED CLAUSES

11.1 This Agreement shall be subject to all applicable Federal and State laws and regulations, NASA regulations and policies, and CASIS policies. Subcontractor certifies and/or assures compliance with all applicable laws and regulations, including the following.

11.2 Subcontractor shall comply with Executive Order 11246, "Equal Employment Opportunity," as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment

Opportunity,” and as supplemented by regulations at 41 CFR part 60, “Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor.

11.3 To the extent this Agreement is in excess of the small purchase threshold, Subcontractor agrees that CASIS, NASA, the Comptroller General of the United States, or any of their duly authorized representatives, shall have access to any books, documents, papers and records of the contractor which are directly pertinent to the Project for the purpose of making audits, examinations, excerpts and transcriptions.

11.4 To the extent this Agreement is in excess of \$100,000, Subcontractor agrees to (a) Comply with applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended (42 U.S.C. 7401 et seq.) and of the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.); (b) Ensure that no portion of the work under this award will be performed in a facility listed on the Environmental Protection Agency (EPA) List of Violating Facilities on the date that this award was effective unless and until the EPA eliminates the name of such facility or facilities from such listings; (c) Use its best efforts to comply with clean air standards and clean water standards at the facility in which the award is being performed; (d) Insert the substance of the provisions of this clause into any nonexempt subaward or contract under the award; and (e) Report violations to NASA or to EPA.

11.5 To the extent this Agreement is in excess of \$100,000, Subcontractor agrees to provide CASIS with a certification concerning compliance with the Byrd Anti-Lobbying Amendment. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient. CASIS shall provide the form Certification to Subcontractor for signature.

11.6 Subcontractor represents that it is not listed on the General Services Administration’s List of Parties Excluded from Federal Procurement or Nonprocurement Programs in accordance with Executive Orders 12549 and 12689, “Debarment and Suspension,” and agrees to provide CASIS with a certification to this effect. CASIS shall provide the form Certification to Subcontractor for signature.

11.7 To the extent this Agreement requires Subcontractor to use any subjective judgment, Subcontractor agrees as follows.

(a) Statement of Subcontractor. Subcontractor has not sought, and agrees that it will not seek, to receive grant funding from CASIS, and Subcontractor does not have an interest in any entity seeking grant funding from CASIS. Subcontractor has not sought to use the ISS NL, and does not have an interest in a user or potential user of the ISS NL. Subcontractor agrees to notify CASIS immediately should Subcontractor determine that there is or might be a conflict of interest or the appearance of a conflict of interest.

(b) Mitigation Plan. Subcontractor agrees to analyze and identify any potential organizational conflicts of interest, and upon request to deliver an Organizational Conflict of Interest Mitigation

Plan (OCI Plan) to CASIS, the terms of which will be incorporated in the agreement between the parties. Either Subcontractor or CASIS may propose changes to the OCI Plan. Such changes are subject to the mutual agreement of the parties. In the event that CASIS and Subcontractor cannot agree upon a mutually acceptable change, CASIS reserves the right to make a unilateral change to the OCI Plan as necessary.

(c) Violation. Subcontractor shall report any conflicts of interest, and any violations of the OCI Plan, to CASIS. This report shall include a description of the conflicts or violation and the actions Subcontractor has taken or proposes to take to mitigate and avoid repetition of the conflicts or violation. After conducting such further inquiries and discussions as may be necessary, CASIS and Subcontractor shall agree on appropriate corrective action, if any, or CASIS shall direct corrective action.

(d) Breach. Any breach of the above restrictions or any nondisclosure or misrepresentation of any relevant facts required regarding organizational conflicts of interests to be disclosed may result in termination of the Agreement.

(e) Subcontracts. When the possibility of an OCI exists, Subcontractor will ensure that OCI prevention and mitigation requirements (including this paragraph (e)) flow down to affected subcontractors at any tier. The terms shall be appropriately modified to reflect the change in parties and to preserve the Government's rights.

11.8 To the extent this Agreement requires Subcontractor to use any subjective judgment, or to have access to CASIS non-public information, Subcontractor agrees to comply with the requirements in Section 4.28 of the Cooperative Agreement between NASA and CASIS concerning Personal Conflicts of Interest, and with the CASIS Personal Conflict of Interest Policy. In particular, the Subcontractor agrees to prevent personal conflicts of interest; to disclose to CASIS any actual or potential conflict of interest as soon as it is known or reasonably should be known; to not use non-public information for personal gain; and to avoid even the appearance of personal conflicts of interest. Subcontractor further agrees to provide annual Conflict of Interest Disclosure Statements to CASIS, on the form supplied by CASIS.

ARTICLE 12: INSPECTION AND ACCEPTANCE

12.1 Inspection/Acceptance of Goods and Deliverables. CASIS has the right to inspect goods and deliverables provided hereunder at any reasonable time before delivery. CASIS may reject all goods and deliverables supplied that are defective or nonconforming. Such rejected goods and deliverables may be returned to Subcontractor at its expense. Upon CASIS's request, Subcontractor shall repair, replace, or otherwise correct defective or nonconforming goods and deliverables at its expense. Failure to inspect goods and deliverables, failure to discover defects in goods, or payment for goods or deliverables, of themselves, shall not constitute acceptance or thereby limit any of CASIS's rights.

12.2 Inspection/Acceptance of Services. CASIS has the right to inspect and test all services to be provided hereunder to the extent practicable at all reasonable places and times. CASIS shall perform all inspections and tests in a manner that will not unduly delay the work. If any of the services are found to be defective or do not conform to requirements in this Agreement, CASIS may require Subcontractor to re-

perform, or have re-performed, the services at no additional cost to CASIS. When defects or non-conformances in services cannot be corrected by re-performance, CASIS may (1) require Subcontractor to take all necessary actions to ensure that future performance will conform with this Agreement; and (2) equitably reduce the Agreement cost or price to reflect the reduced value of the services performed. If Subcontractor fails to promptly re-perform, or have re-performed, the services, or to take the action necessary to ensure future performance in conformity with the Agreement's requirements, CASIS may:

(1) by contract or otherwise, perform itself, or have performed, the services and thereafter reduce the Agreement cost or price by an equitable amount under the circumstances; or (2) terminate the Agreement for Subcontractor's default.

ARTICLE 13: FORCE MAJEURE

13.1 Neither party shall be deemed to have defaulted or failed to perform hereunder if that party's inability to perform or default was caused by an event or events beyond its reasonable control and without its fault or negligence including (without limitation) acts of the government in either its sovereign or contractual capacity, fire, flood, drought, unusually severe weather, epidemics, quarantine restrictions, embargoes, explosions, acts of God or a public enemy, strikes, labor disputes, vandalism, and civil riots. The affected party shall promptly notify the other party in writing after the commencement of a force majeure delay and upon the cessation of such delay.

ARTICLE 14: DISPUTES

14.1 Pending resolution of any dispute hereunder, Subcontractor shall proceed diligently with the performance of work, including the delivery of deliverables and performance of services in accordance with CASIS's direction. Upon resolution of the dispute, this Agreement shall be equitably adjusted, if necessary, to reflect such resolution. In the event that the dispute is not resolved, the parties reserve all remedies available at law or in equity. The parties agree that jurisdiction and venue for any legal actions are limited to the state or federal courts in the state of Florida.

ARTICLE 15: MISCELLANEOUS

15.1 Governing Law. This Agreement and the rights and obligations of the parties hereunder shall in all respects be governed by the substantive law of the State of Florida, including all matters of construction, validity and performance.

15.2 Assignment. Neither party may assign any of its rights or delegate any of its obligations hereunder without first obtaining the prior written consent of the other party hereto. This Agreement inures to the benefit of, and is binding upon, the successors and permitted assigns of the parties hereto.

15.3 Compliance with Laws. Subcontractor shall comply with all local, state, and federal laws and regulations applicable to the conduct of its business and its performance under this Agreement. Subcontractor agrees to execute and deliver any and all required certificates evidencing compliance with applicable laws and regulations and CASIS policies, including (a) the Certification Regarding Byrd Anti-Lobbying Amendment; (b) the Certification Regarding Debarment and Suspension; and (c) the standard CASIS Confidentiality Agreement.

15.4 Publicity. Subcontractor agrees not to use the existence of this Agreement or the name of CASIS as part of any commercial advertising, except as expressly permitted by CASIS in writing.

15.5 Entire Agreement/Amendments. This Agreement contains the entire understanding between the parties hereto and supersedes any and all prior agreements, understandings, and arrangements between the parties relating to the subject matter hereof. No amendment, change, modification or alteration of the terms and conditions hereof shall be binding unless evidenced by a writing signed by the parties hereto.

15.6 Notices. All notices hereunder shall be in writing, personally delivered or sent by certified mail, return receipt requested, addressed to the other party as follows, and shall be effective as of the date of personal delivery or mailing:

If to Subcontractor:

If to CASIS:

Center for the Advancement of Science in Space
MS CASIS, Bldg. M6-1025, Room 308-1023
Kennedy Parkway North and 5th Street
Kennedy Space Center, FL 32899
Attn: Joanne Hutcheson, Director of Administration

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their duly authorized representatives.

FOR SUBCONTRACTOR:

By: _____

Date: _____

Name: _____

Title: _____

FOR CASIS:

By: _____

Date: _____

Name: _____

Title: _____

APPENDIX A

Scope of work:

[Suggested Categories:]

I. Services to be Performed

II. Deliverables

III. Schedule of Performance

IV. Budget

V. Invoicing and Payments

PLANS FOR KEY OFFERINGS

CASIS major offerings include development of research pathways, marketing of ISS, development of marketplace and membership capability.

Research Pathways. The approach to development of research pathways has been initiated. Evaluation of published manuscripts from 2001 to 2011 in the areas of biology and crystallography conducted on ISS is underway. The work will be assessed for robust science and near-term commercial potential by an independent team of content experts (six individuals, each having strong science expertise and demonstrated commercial successes). The findings from the content expert team will inform the research pathways and will provide insight into the following points which in turn are instrumental in setting the foundation of the marketplace and in solidifying marketing approaches:

- Answer the question “Why ISS”
- Identify customer base segments
- Provide outreach to stakeholders

Marketing. Communications, marketing and media relations are underway with the goal of publicizing CASIS as the conduit to science in space. Outreach programs will position CASIS and align closely with the organization’s marketing campaigns, using press outreach, media events, media calls, collateral, communications support and press material development to set specific messaging targeted to CASIS constituencies. Communications tools and practices, including the use of social media and related digital assets, will reinforce the CASIS message across all elements of the organization in integrated fashion. The marketing plan incorporates proactive and reactive communications strategies which include a scan of industry and peer organizations that can be engaged to promote elements of the CASIS programs that resonate with specific constituencies. Due diligence is ongoing to evaluate best providers for development of an enhanced web presence using a full content management system; a creative agency has been recruited to work on collateral materials.

Marketplace. Work has been initiated on establishment of guidelines for the CASIS marketplace including delineation of conflicts of interest protocols and procedures (see above for specific policies), development of marketplace profile templates for implementation partners and National Lab facilities users, and due diligence to identify and facilitate potential market engagement opportunities and program structure. These strategies will provide guidance on the value of the market versus what it will pay, the market size, interest level of constituents, value propositions, definition of verticals and the barriers to entry. Messaging to target multiple constituencies and attract new users is in development in coordination with marketing and research pathway efforts, as described above, to bring awareness of space flight to a broad audience and illustrate applications that can create potential return on investment. CASIS briefed members of the NASA National Lab Office on current marketplace development strategies and schedules.

Membership. As outlined in the CASIS Annual Program Plan, strategic approach and due diligence for the membership program will be carried out in the second quarter of fiscal year 2012. Data gathering for the marketplace will be applied to inform development of the membership program.

SCOPE OF WORK FOR VALUATION FRAMEWORK

CASIS will direct the creation of economic modalities that recognize and value the impact of high caliber research and technology projects to support the establishment of ISS National Lab research objectives and subsequent portfolio management objectives that support project prioritization and selection, and the return of value to the nation.

Data will be collected according to relevant science discipline outcomes. Repeated testing and refinement of the economic valuation models, and accompanying economic factors and criteria, will be conducted to allow for development of working models to be used in ISS National Lab project selection and prioritization processes. Measures of economic model success will be determined by reproducible outcomes for replicate evaluations obtained for similar sets of project categories and asset valuations. Data from ongoing and past ISS National Lab payloads will be input into the valuation framework to test effectiveness of the models for determination of past, present and potentially future projects and payloads to which these models will be applied.

Milestones will be established to track the progress of deliverables and to provide multiple specified points of input by individuals and groups who will be using and administering the valuation models. Architecture and associated valuation factors and data elements for model inputs will be established and prototype demonstrations will be developed to engage additional input and refinement of the models. Sets of factors will be evaluated that cross multiple science and technology disciplines.

Deliverables resulting from this work include the following:

- Economic valuation tools and models that facilitate prioritization of projects using approaches designed to account for the value of each type of project or payload, and to support comparison of projects within a similar analytical frame for the purposes of maximizing value to the nation. The approach should be able to accommodate multiple projects, whether focused on science, technology, or facility-enhancing hardware or software.
- The economic parameters applied to prioritization processes will utilize an analysis based on economic value models reflecting investments made by the U.S. government derived from a combination of techniques drawing from macro/micro-economics.
- Value framework architecture and associated valuation factors, tools and data elements for model inputs will be established and prototype demonstrations will be developed to engage additional input and refinement of the valuation models.
- The techniques and parameters applied in these models must ensure that a fair, transparent and impartial selection process is utilized for maximizing value to the nation. The same economic valuation techniques used for initial prioritization should be able to be used in the event of re-prioritization of payloads.