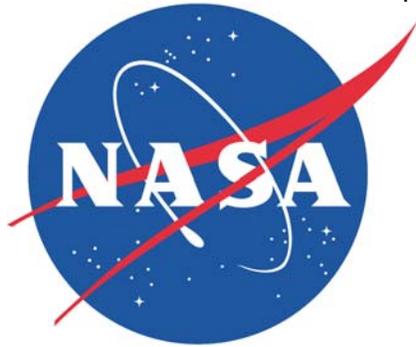


OMB Approval No. 2700-0087



**National Aeronautics and Space Administration  
NASA Headquarters, Office of Education  
Higher Education Division**

**NASA COOPERATIVE AGREEMENT NOTICE (CAN)**

**NASA Science and Technology  
Scholarship Program  
(STSP)**

Announcement No. NNH04ZNH002C  
(This is the initial announcement of this funding opportunity.)

Catalog of Federal Domestic Assistance (CFDA) Number: 00.000

<b>Release Date:</b>	<b>September 28, 2004</b>
<b>Proposals Due:</b>	<b>October 28, 2004</b>
<b>Selection Announcement:</b>	<b>November 30, 2004</b>

Code N, NASA Headquarters  
Washington DC 20546-0001

## EXECUTIVE SUMMARY

This Cooperative Agreement Notice (CAN) is a solicitation by the National Aeronautics and Space Administration (NASA) Headquarters Office of Education to develop and coordinate the NASA Science and Technology Scholarship Program (STSP). The STSP is a competitive scholarship program intended to guide U.S. students toward NASA-related science and engineering careers. The program will provide tuition scholarships to U.S. citizens and permanent residents, of diverse geographic and demographic backgrounds, enrolled in accredited institutions of higher education (university, college, or community college) degree programs in engineering, science, and other technology fields.

As outlined in the *Vision for Space Exploration*, the *NASA Strategic Plan*, and the *NASA Education Enterprise Strategy of 2003*, a strategic goal of NASA's mission is "to inspire and motivate students to pursue careers in science, technology, engineering and mathematics." STSP is a focused program to attract the "best and brightest" science and engineering students into the NASA workforce. In exchange for tuition scholarships and research stipend support, STSP students must agree to fulfill a service obligation following graduation.

An appropriated funding level of \$7.5M has been established for the initial year of the NASA Science and Technology Scholarship Program. The appropriation includes scholarship funding support of up to \$20,000 per academic year per student, up to \$10,000 annually per student to support the applicable research internships and activities both at a designated host NASA Center and at the participant's institution, as well as STSP administrative costs. NASA anticipates continuing support for this program for one full program cycle, contingent on the availability of funds, progress, and continued relevance to the NASA mission. An STSP program cycle is estimated to take 30 months to complete.

The authority to establish the STSP is provided to NASA in the NASA Flexibility Act of 2004 (<http://nasapeople.nasa.gov/hclwp/index.htm>). This legislation establishes, and will guide, STSP participant eligibility criteria, scholarship funding, retention requirements, service obligations, and penalties for non-completion and non-compliance. However, NASA retains flexibility regarding the development of program infrastructure, management and administration that will ultimately determine the success of this initiative. These areas are the focus of this solicitation.

Organizations or consortia of organizations interested in collaborating with NASA to develop and coordinate a competitive, high-quality, national undergraduate scholarship-for-service program are invited to submit proposals. Participation in the STSP is open to all categories of domestic organizations, including universities and colleges, professional societies, industry, nonprofit institutions, and academic organizations. Proposals from entities outside the United States will not be considered. For this solicitation, the provisions contained in the NASA Grant and Cooperative Agreement Handbook (NPG 5800.1D), Title 14, Part 1260 of the Code of Federal Regulations apply to both non-profit and commercial organizations. Pursuant to section 1260.4(b)(2) of the Handbook NASA does not allow for payment of profit or fee to commercial firms under this award.

NASA plans to award one (1) cooperative agreement as a result of this solicitation. The agreement is scheduled to be awarded no later than November 2004, and will continue for one full program cycle.

Proposals must be received by 4:30 PM Eastern Time, October 28, 2004. Proposals received after the announced deadline will not be considered. In addition to paper submission and a complete electronic copy on CD-ROM or ZIP disk, a proposal cover page must be submitted electronically through the SYS-EYFUS system. (See Appendix B). Electronic submission does not take the place of the required paper submission.

The Point of Contact for Technical questions regarding the Cooperative Agreement (draft and formal solicitations) and the extent of NASA contribution follows:

Katie Blanding  
University Affairs Officer  
Office of Education  
NASA Headquarters  
Washington, D.C. 20546  
Telephone: 202-358-0402  
FAX: 202-358-3032  
Email: [katie.blanding@nasa.gov](mailto:katie.blanding@nasa.gov)

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## **I. Funding Opportunity Description**

As outlined in the *Vision for Space Exploration*, the *NASA Strategic Plan*, and the *NASA Education Enterprise Strategy of 2003*, a strategic goal of NASA's mission is "to inspire and motivate students to pursue careers in science, technology, engineering and mathematics". NASA currently has a wide array of education programs that serve the K-12 and higher education research communities. To ensure alignment and excellence of all our education endeavors, including the STSP, the Office of Education has established operating principles that guide the development, implementation, and evaluation of all NASA education programs. The Education Program Operating Principles are outlined and described in Appendix A.

### **A. The NASA Science and Technology Scholarship Program**

This Cooperative Agreement Notice (CAN) is a solicitation for collaboration with the NASA Headquarters Office of Education to develop and coordinate the NASA Science and Technology Scholarship Program. The NASA Science and Technology Scholarship Program (STSP) is a competitive scholarship program intended to guide U.S. students toward NASA-related science and engineering careers. STSP is a focused program to attract the "best and brightest" science and engineering students into the NASA workforce. Students awarded STSP scholarships will enter into a contractual agreement to serve as full-time employees with NASA upon graduation. The STSP Implementation Plan is contained in Appendix H.

The authority to establish the STSP is provided to NASA in the NASA Flexibility Act of 2004 (P.L. 108-201; <http://nasapeople.nasa.gov/hclwp/index.htm>). This legislation establishes, and will guide, STSP participant eligibility criteria, scholarship funding, retention requirements, service obligations, and penalties for non-completion and non-compliance. However, NASA retains significant flexibility regarding the development of program infrastructure, management and administration that will ultimately determine the success of this initiative. These areas are the focus of this solicitation.

In addition to scholarship funding support of up to \$20,000 per academic year, STSP participants will receive up to \$10,000 annually to support their research internships and activities both at a designated host NASA Center and at the participant's institution. Each STSP participant will be assigned a NASA-affiliated technical mentor who will coordinate and help structure student research activities, as well as provide each student with increased exposure to NASA's exciting mission, unique research facilities, and skilled workforce.

The service obligation equates to serving a two-year appointment with NASA for each academic year under scholarship. Students under scholarship for two or more academic years will have a maximum service obligation of four years. Participation in STSP is limited to four academic years. NASA may also elect to defer the obligation to allow students to pursue graduate level studies in a NASA-approved field of study.

### **B. Definition of Responsibilities of the Recipient**

Organizations or consortia of organizations interested in collaborating with NASA to implement, coordinate and maintain a competitive, high-quality, national undergraduate tuition scholarship and research program designed to stimulate a continued interest in

NASA-related engineering, mathematics, computer science or physical/life sciences disciplines are invited to submit proposals. The successful partner organization will, as a minimum, integrate the following target activities into its proposal:

- (a) Develop a program plan that will ensure a competitive process resulting in the selection and sustenance of a highly qualified, demographically and geographically diverse cohort of 200-225 undergraduate students.

Basic STSP candidate eligibility must include:

- Rising Undergraduate Freshman, Sophomore, Junior or Senior
- Full-time student in an accredited U.S. institution of higher education
- U.S. Citizen or permanent resident
- Academic major in an appropriate field of Engineering, Physical Sciences, Life Science, Computer Science, or Mathematics
- Candidate's statement of career interest
- Demonstrated NASA or other related research experience
- Academic Letters (2) of Recommendation

- (b) Outline and implement a program awareness strategy to include activities, conferences, meetings, scholarship databases, promotional materials, or other appropriate methods through which the NASA STSP information can be disseminated;

- (c) Establish a sequence and schedule of critical events, requirements, and dates necessary to ensure timely screening, selection and awarding of the undergraduate scholarships no later than April 2005 with scholarship coverage commencing with the Fall 2005 academic session; it is anticipated that the program's initial year will focus intake primarily on rising sophomore and junior undergraduate students;

- (d) Establish a methodology for tracking student progress, including review of academic performance, evaluation of scholarship renewal/continuation requests, notification of proposed changes to approved academic programs of study, and identification of graduating seniors who are either ready to transition into the workforce or are requesting approval to defer and pursue graduate-level studies in an appropriate field of study;

- (e) Implement an administrative process that facilitates the placement of STSP participants in annual stipend-supported, mentor-directed, research assignment activities at NASA Centers and affiliate facilities; this process should include Center Program Coordinator collaboration, as well as the fiduciary process for providing student stipend payments, transportation/travel arrangements, etc.

- (f) Develop program evaluation metrics to determine planned program effectiveness.

- (g) Develop an administrative process that facilitates convening an annual STSP Panel, including program management and representation from NASA centers, to determine needed competencies, assess applicable research and industry

trends, and review scope of applications received; other panel membership may include representatives from aerospace-related professional societies, industry partners and the university research community with NASA compliance to the Federal Advisory Committee Act as applicable;

- (h) Coordinate the development and maintenance of an STSP website in full compliance with the guidelines and protocols of the NASA portal.

### **C. NASA Responsibilities**

Integral and essential to the success of the NASA STSP will be the following activities for which NASA will be responsible:

- (a) Designate an agency-level Program Officer and identify installation-level program liaisons/points of contact;
- (b) Establish initial and, thereafter, annual STSP intake targets relative to academic levels and discipline majors that align with NASA's Strategic Human Capital Plan regarding projected workforce skill and competency needs;
- (c) Provide scholarship program graduates with full-time civil service term or temporary appointments at a NASA Center or Installation;
- (d) Assign a technical mentor to each STSP student;
- (e) Provide hands-on, research-related assignments and activities at NASA Centers or affiliate facilities that provide annual, discipline-specific experiences for STSP participants under the guidance of a technical mentor;
- (f) Provide access to government-owned or operated facilities and equipment in support of the scholarship program and research assignment, as appropriate;
- (g) Establish and retain contractual documents and procedures to evidence the scholarship program commitment between NASA and the STSP participants;
- (h) Establish adjudication procedures, consistent with statutory guidelines, regarding collection of payments resulting from failure to fulfill academic commitment or service obligation.
- (i) Select the students who will participate in the STSP from the applicant pool.

### **D. NASA Safety Policy**

As with all NASA programs safety is essential. Safety is the freedom from those conditions that can cause death, injury, occupational illness, damage to or loss of equipment or property, or damage to the environment. NASA's safety priority is to protect: (1) the public, (2) astronauts and pilots, (3) the NASA workforce (including organizations working with NASA under NASA award instruments), and (4) high-value equipment and property.

## II. Award Information

This notice will result in one multiple-year cooperative agreement as defined in 31 U.S.C. 6305, Using Cooperative Agreements, and is entered into pursuant to the authority of 24 U.S.C. 2473 (c)(5). The period of performance is estimated to be 30 months, but may continue up to three (3) years. The term of the cooperative agreement will mirror one full program cycle. A program cycle is defined to include the elements of: application acceptance and screening, student selection, scholarship award, research assignment completion, and program evaluation, as these elements pertain to the initial scholarship cohort. NASA expects to award a cooperative agreement from this solicitation in November 2004.

For this solicitation, the provisions contained in NASA Procedures and Guidelines (NPG) 5800.1D, NASA Grant and Cooperative Agreement Handbook (Title 14, Part 1260 of the Code of Federal Regulations), as amended and published as a final rule in the Federal Register (65 FR 62900-62955, October 19, 2000), apply to both non-profit and commercial organizations. Pursuant to section 1260.4(b)(2) of the Handbook NASA does not allow for payment of profit or fee to commercial firms under this award. Additional information on Cooperative Agreements with NASA may be found at: <http://ec.msfc.nasa.gov/hq/library/srba>.

The award is based on an appropriated funding level of up to \$7.5M for the initial year of the NASA STSP. The appropriation must cover scholarship funding support of up to \$20,000 per academic year, per student participant, up to \$10,000 per student participant annually to support research internships and activities both at a designated host NASA Center and the participant's academic institution. The \$7.5M of funding will also cover the STSP administrative costs identified by the proposing organization. Contingent on the availability of funds, progress, and continued relevance to the NASA mission, NASA anticipates continuing support at approximately similar funding levels through the first program cycle.

**However, all STSP direct student tuition and stipend payment funding must be accounted for independent of the funds required for program administration and support - as identified in the proposing organization's cost summary. Therefore, any and all student tuition and stipend-stipulated funds that remain, after all initial year student funding obligations are met, shall be "carried forward" and applied towards payment of student tuition and stipend obligations incurred in the following year of this agreement.**

NASA reserves the right to make no awards under this cooperative agreement notice (CAN) and, in the absence of program funding or for any other reason, to cancel this CAN by having a notice published in the Commerce Business Daily and at FedGrants.gov. NASA assumes no liability for canceling the CAN or for anyone's failure to receive actual notice of cancellation. Cancellation may be followed by issuance and synopsis of a revised CAN.



covers, colored paper, etc., is prohibited. For ease of handling, each copy of the proposal should be bound in a three-ring, loose-leaf notebook. RELEVANT brochures or other published material may be included within the 35-page limit of the proposal. Appendices should not be included.

An electronic copy must also be submitted with the hard copy proposals. It is preferred that the electronic copy be on a CD ROM or on a 100MB Zip disk. It is acceptable to submit the electronic copy on 3.5-inch floppy discs; however, these discs are easily damaged during shipping. The file or files should be in MS Word (.doc), MS Excel (.xls), or Adobe Acrobat (.pdf) format.

## **2. NASA Proposal Data System**

This CAN requires that the proposer(s) register key data concerning their intended submission with NASA's master proposal data base system (SYS-EYFUS) located at the Web site <http://research.hq.nasa.gov/>. Therefore, potential applicants are urged to access this site well in advance of the proposal due date of interest (see below) and familiarize themselves with its structure. It is especially important to note that every individual named on the proposal Cover Page (see below) must be registered in this NASA proposal data system. Individuals must perform this registration themselves, i.e., no one may register a second party. Note that the data entered into this data site are strictly for NASA's use only.

Requests for assistance in accessing and/or using this Web site may be directed by E-mail to [proposals@hq.nasa.gov](mailto:proposals@hq.nasa.gov), Monday through Friday, 8:00 AM – 6:00 PM Eastern Time, or by telephone to (202) 479-9376. Frequently Asked Questions (FAQs) may be accessed through the Proposal Online Help site at <http://proposals.hq.nasa.gov/help.html>.

## **3. Proposal Cover Page**

All proposals submitted in response to this CAN must be prefaced with the Proposal Cover Page form that can be accessed at <http://research.hq.nasa.gov/> (reference sample form in Appendix C). This form may be accessed and submitted starting from the release date of this announcement and remains open until midnight Eastern Time on the due date.

The Proposal Cover page must first be submitted **electronically** via the SYS-EYFUS Web site located at <http://proposals.hq.nasa.gov/>. If the respondent is new to the SYS-EYFUS system, please follow directions provided in Appendix B. If the respondent has obtained a User ID and password in the process of submitting a proposal for a previous NASA announcement, the same user UserID and password can be used to complete the electronic proposal cover page in response to this CAN. Be sure to click on "Edit Personal Information" if any of your correspondence information in SYS-EYFUS is not current.

After the requested Proposal Cover Page data are electronically entered and submitted, the entirety of this form is to be printed and then signed by the designated personnel for submission with the required hard copies of the proposal.

The Proposal Cover Page **hard copy** (see Appendices B and F for instructions on how to acquire the proposal hard copy from the online system) must be signed by the Principal Investigator and Authorizing Official by title of the investigator's organization who is authorized to commit the organization. The Authorizing Official's signature also serves to verify that the proposing organization or proposing consortium has read and is in compliance with all Federally required Representations and Certifications (Appendix E). This page, containing Principal Investigator, Team, and Authorizing Official information, a 200-300 word abstract, and a summary of proposed costs, will count as one page toward the proposal total regardless of actual length. See Appendix F for a Proposal Checklist.

SYS-EYFUS automatically assigns a unique proposal identifier code to each entry, e.g., "LWSGD02-0004-0003," that will appear in a double-framed box in the upper right corner of the printed Proposal Cover Page; this number is used by NASA throughout the proposal review and selection process to uniquely identify the proposal and its associated electronic data.

Electronic submission of only the Proposal Cover Page does not satisfy the deadline for proposal submission. Five copies of the proposal, one copy with original signatures, and the electronic version of the entire proposal must be received at the indicated address by close of business (4:30 p.m. Eastern Time) on the proposal due date (reference Section IV.B., Submission Dates and Times).

Physical changes (such as whiteout or strikethrough) of any kind to the printed version of a Proposal Cover Page that has been electronically submitted are not permitted. Any needed changes may only be made by editing the electronic version following the instructions on the Web site, after which the revised Proposal Cover Page is then printed for purposes of securing the necessary signatures (Note: for this reason, it is recommended that this item be produced from the specified Web site well in advance of the proposal due date).

#### **4. Required Identification Numbers**

**DUNS Number:** All applicants must provide the Dun and Bradstreet (D&B) Data Universal Numbering System (DUNS) number for their organization in the Cover page of their proposal. This requirement applies to renewals of awards as well as to prospective new awards. The Federal Government will use the DUNS number to better identify related organizations that are receiving funding under grants and cooperative agreements, and to provide consistent name and address data for electronic grant application systems. The DUNS number is a unique nine-character identification number provided by the commercial company Dun & Bradstreet (D&B). Applicants may call D&B at 1-866-705-5711 to register and obtain a DUNS number, or access the D&B website at: <http://www.dnb.com/us/>. The process to request a DUNS number by telephone takes about 10 minutes, and is free of charge. The process to obtain a DUNS number through the website takes about fourteen days, and is also free of charge. Organizations will use the same DUNS number with every proposal submitted for a Federal grant and cooperative agreement. Note that the DUNS number is site-specific.

**CAGE Number:** NASA also requires the applicant's organization be registered in the Central Contractor Registration (CCR) database and obtain a Commercial and

Government Entity (CAGE) code prior to submitting a proposal. The purpose of this requirement is to help centralize information about grant recipients and provide a central location for grant recipients to change organizational information. Information for registering in the CCR and online documents can be found at: <http://www.ccr.gov/>. Before registering, applicants and recipients should review the Central Contractor Registration Handbook, which is also located at <http://www.ccr.gov/>. The process for obtaining a CAGE code is incorporated into the CCR registration.

**Taxpayer Identification Number (TIN):** Every U.S. organization (or Unaffiliated Individual) that submits a proposal to a U.S. agency must provide their permanently-assigned TIN in compliance with 31 U.S. Code 7702(c)(1).

## **5. Suggested Structure**

Following is a suggested approach to structuring the format and contents of the proposal. Regardless of format, failure to address the specific content elements as outlined will jeopardize further consideration of the proposal.

### **a) General Information**

#### Format:

- (1) Proposal Cover Page (Proposer Information, Abstract, Cost Summary)
- (2) Table of Contents
- (3) Organizational Commitment for each member institution (Endorsement)

#### Content:

The names and addresses of all participating institutions or entities must be included. Provide the name, address, telephone, e-mail, and fax number of the principal agent or point of contact. The appropriate signatures must be included on the cover page as outlined in Appendix C. A table of contents, abstract, and endorsement by an authorizing official of the proposing organization must also be included.

It is NASA policy to use information contained in proposals for evaluation purposes only. While this policy does not require that the proposal bear a restrictive notice, offerors, or quoters, should, in order to maximize protection of trade secrets or other information that is commercial or financial, and confidential or privileged, place the following notice on the title page of the proposal and specify the information subject to the notice by inserting appropriate identification, such as page numbers, in the notice. In any event, information (data) contained in proposals will be protected to the extent permitted by law; but NASA assumes no liability for use and/or disclosure of information not made subject to the notice:

**NOTICE**

**Restriction on Use and Disclosure  
of Proposal Information**

*The information (data) contained in [insert page numbers or other identification] of this proposal constitutes a trade secret and/or information that is commercial or financial, and confidential or privileged. It is furnished to the Government in confidence with the understanding that it will not, without permission of the offeror, be used or disclosed other than for evaluation purposes; provided, however, that in the event a grant or cooperative agreement is awarded on the basis of this proposal, the Government shall have the right to use and disclose this information (data) to the extent provided in the grant or cooperative agreement. This restriction does not limit the Government's right to use or disclose this information (data) if obtained from another source without restriction.*

**b) Outline of Proposed Strategy, Approach and Methodology**

Format:

- (1) Describe via outline or narrative, as appropriate, the program strategy, approach, and methodology proposed
- (2) Highlight key elements of proposed Science and Technology Scholarship Program content/activities

Content:

This section should include proposed program components that will ensure a competitive student award process; an outline of a program awareness strategy; methodology of monitoring and tracking student academic and research progress; outline of an administrative process to facilitate disbursement of scholarship and research stipend funds, student placement for applicable research internships, and convene an annual STSP panel; and coordinate the development and maintenance of an STSP website.

**c) Proposed Implementation Schedule**

Format:

- (1) Proposed Sequence and Schedule of Critical Events
- (2) NASA Responsibilities
- (3) Partner Responsibilities

Content:

This section must identify key activities and suggested timetables necessary to ensure timely screening and selection of students to enable a scholarship award date no later than April 2005. This section should also identify the key responsibilities of the offeror, as well as NASA, that would lie along the "critical path" of this sequence.

**d) Program Responsibilities and Coordination**

Format:

- (1) Narrative description of the roles and responsibilities of both NASA and the recipient.

- (2) Narrative description of the communication and coordination methodology to be employed.
- (3) Personnel: one-page vitae on key principals and supporting staff to be assigned to this project and the proposed responsibilities of each.

Content:

This section must address the means of collaboration and coordination between the offeror and the NASA program office. This section should identify the key responsibilities of the offeror, as well as NASA, in conducting the assessment. The section must identify key principals and supporting positions necessary for program coordination – including the experience and qualifications of the individuals to be assigned or recruited. If the offeror is a collaboration or consortium of entities, this section must also include the Articles of Collaboration per 14 C.F.R. 1274.205, Cooperative Agreements with Commercial Firms, Consortia as Recipients.

**e) Program Evaluation**

Format:

Narrative description of plans to maintain program effectiveness, including evaluation and assessment mechanisms.

Content:

This section should address the establishment of an appropriate program evaluation to assess how well the program is working. Provide a description of the elements planned for the evaluation should be identified to support an assessment of the processes, outcomes, and impact of the program. Elements of a process evaluation included in the proposal should serve to reveal the extent to which the program is operating as intended. Elements of an assessment of outcomes presented in the proposal should support a description on the extent to which the program achieves its outcome-oriented objectives. Lastly, elements of an impact evaluation included in the proposal should assist in understanding the net effect of the program by comparing program outcomes with an estimate of what would have happened in the absence of the program.

**f) Proposed Budget/Cost Summary**

Format:

The budget summary is part of the SYS-EYFUS cover page that is created by the offeror (<http://research.hq.nasa.gov>; see Appendix C for a sample). A hard copy of the cover page, including budget summary, must be included without modifications (e.g., white-out or other mark-ups) in the hard copy of the proposal. A more detailed budget, including explanations or a budget narrative, can expand upon the format in SYS-EYFUS.

Content:

The proposed budget should contain sufficient cost detail and supporting information to facilitate a speedy evaluation and award. Dollar amounts proposed with no explanation (e.g., Equipment: \$12,000, or Labor: \$35,000) may reduce proposal acceptability. Each item should be explained in reasonable detail.

Direct labor costs should be separated by titles or disciplines (e.g., Program Coordinator, University/Student Liaison, Program Assistant, etc.) with estimated hours, hourly rates, and total amounts of each. Indirect costs should be sufficiently explained such that evaluators can understand the basis of the proposed costs.

Other Costs (with each significant category detailed) should be explained in reasonable detail, and substantiated wherever possible. For example domestic travel allowances should include the number of trips, destination, duration, etc.

The proposal should address how program costs will be controlled to ensure that as much of the funding as possible can be directly applied to scholarships and research internships. NASA anticipates that that total administrative/support costs for this program will be less than 15 percent of the total funding provided.

### **C. Submission Dates and Times**

Regardless of the method of delivery, the signed original proposal, five printed copies, and the electronic copy of the entire submission must be physically received by **4:30 PM Eastern Time, October 28, 2004**. Proposals received after the announced deadline will not be considered. Proposals should be mailed to:

NASA Peer Review Services  
Attn: David Barber  
500 E. Street, S.W., Suite 200  
Washington, D.C. 20024

### **D. Funding Restrictions**

Limitations on direct, indirect, and other applicable costs will be administered in accordance with the NASA Grants and Cooperative Agreement Handbook (<http://ec.msfc.nasa.gov/hq/library/srba>).

### **E. Other Submission Requirements**

Proposals may be withdrawn at any time.

## **V. Proposal Review Information**

### **A. Criteria**

Evaluation of each proposal will be used to assess intrinsic technical merit, relevance to NASA's stated objectives, and cost realism and reasonableness. The following sections represent the weighted categories for the solicitation:

#### **Factor 1: Relevance to NASA vision and mission and to the authorizing legislation and goals of STSP. (20%)**

- The proposal demonstrates alignment with the Education Program Operating Principles.
- The proposal demonstrates understanding of and alignment with NASA education goals, NASA human resources development needs, and STSP authorizing legislation and program goals.

**Factor 2: Technical Merit. (50%)**

- The proposal offers a comprehensive program awareness strategy to potential scholarship program participants.
- The proposal offers an effective methodology for handling student applications, including eligibility screening.
- The proposal offers an effective methodology for tracking student progress from the awarding of a scholarship through participation in NASA-related research, academic progress reviews, and appointment to a mutually beneficial NASA position upon graduation.
- The proposal offers a plan for facilitating post-selection student progress, including both academic progress and NASA-related research (academic and Center-related). Include proposed mechanisms for coordinating with the NASA program office and NASA Centers.
- The proposal offers a plan for maintaining communication and cooperation among the offeror, the NASA program office, NASA Centers, individual students, universities, and other entities (such as academic departments or individual mentors) that may be involved in the program.
- The proposal offers an evaluation strategy for maintaining program effectiveness and determining the extent to which the program achieves its outcome-oriented objectives. The evaluation strategy should identify the responsibilities of the offeror as well as of NASA in conducting the assessment and should specify the evaluation elements, including an impact evaluation component. The evaluation strategy should identify proposed program output/outcome metrics.
- The proposal demonstrates the institutional ability on the part of the offeror to effectively carry out the program plan. The proposal includes a description of the roles and responsibilities of each organization, if the proposal consists of a collaborative/consortium effort. The proposal demonstrates the abilities of key principals and supporting staff to be assigned to the project and the appropriateness of proposed responsibilities. Similar projects carried out by the offeror are relevant to this criterion.

**Factor 3: Management and Cost (30%)**

- The proposal offers an appropriate set of milestone dates leading to the awarding of the first scholarships by April 2005, including the responsibilities of both the offeror and NASA that lie on the "critical path" of this sequence.
- The proposal demonstrates a reasonable and appropriate overall financial plan that describes the allocation of money for the accomplishment of specific activities.
- The proposal establishes controls to ensure against significant increases in non-student related costs.
- The proposal calculates the projected value of student support investment (ratio of direct student scholarship funding to program support funding).
- The proposal identifies proposed cost-sharing contribution, as appropriate.

**B. Review and Selection Process****1. Evaluation Approach**

The primary components of the proposal review process are as follows:

- i. A multi-member review panel whose members will represent the NASA Education, Research, Program Management, and Human Resources communities will be appointed to evaluate proposals and make recommendations through a merit process.
- ii. Selected panelists will be those without a conflict of interest with proposals under review.
- iii. Each proposal will be ranked based on the evaluation criteria cited above and the adjectival rating scale provided below. Each proposal will be assigned a total score between 0 and 100 points.
- iv. The panel's summary findings and subsequent recommendations will be forwarded to the Director, Higher Education Division, NASA Office of Education, who will make the final award selections.

## 2. Proposal Ranking

The reviewers will use the following adjectival ratings to rank individual proposals:

<b>Adjectival Rating</b>	<b>Definition</b>
Excellent	A comprehensive and thorough proposal of exceptional merit with one or more significant strengths. No deficiency or significant weakness exists.
Very Good	A proposal having no deficiency and which demonstrates over-all competence. One or more significant strengths have been found, and strengths outbalance any weaknesses that exist.
Good	A proposal having no deficiency and which shows a reasonably sound response. There may be strengths or weaknesses, or both. As a whole, weaknesses not offset by strengths do not significantly detract from the offeror's response.
Fair	A proposal having no deficiency and which has one or more weaknesses. Weaknesses outbalance any strengths.
Poor	A proposal that has one or more deficiencies or significant weaknesses that demonstrate a lack of overall competence or would require a major proposal revision to correct.

## C. Anticipated Announcement and Award Dates

It is the stated metric goal for NASA for this solicitation that selection will be announced within 70 days of the proposal due date.

When a proposal is not selected for award, the offeror will be notified by mail. All unsuccessful offerors will be given the opportunity for a debriefing in which they are provided information on the strengths and weaknesses of their.

When a proposal is selected for award, negotiation and award will be handled by the Headquarters Procurement Office at Goddard Space Flight Center (Code 210.H). The proposal is used as the basis for negotiation. The agreement officer may request certain business data and may forward an award instrument and other information pertinent to negotiation.

## **VI. Award Administration Information**

### **A. Award Notices**

The selecting official may provide the offeror whose proposal was selected for negotiation a notification stating: "The proposal has been selected; the offeror's business office will be contacted by a contracting officer, who is the only official authorized to obligate the Government; and any costs incurred by the offeror in anticipation of an award are at the offeror's own risk." The award, or funding instrument, will be a cooperative agreement. The selecting official will also provide notice (written or verbal) to each offeror whose proposal was not selected for award as soon as practicable after award.

### **B. Administrative and National Policy Requirements**

The administrative and national policy requirements for this NASA award will be per the NASA Grant and Cooperative Agreement Handbook (<http://ec.msfc.nasa.gov/hq/library/srba>).

### **C. Reporting**

Post-award reporting requirements will be per Exhibit G to the NASA Grant and Cooperative Agreement Handbook (<http://ec.msfc.nasa.gov/hq/library/srba>).

## **VII. NASA Contacts**

The Point of Contact for technical and programmatic questions regarding the Cooperative Agreement (draft and formal solicitations) and the extent of NASA contribution is:

Katie Blanding  
University Affairs Officer, Higher Education Division  
Office of Education  
NASA Headquarters  
Washington, D.C. 20546

*Phone, fax, and e-mail:*  
Telephone: 202-358-0402, FAX: 202-358-3032  
Email: [katie.blanding@nasa.gov](mailto:katie.blanding@nasa.gov)

Respondents without access to the Web or who experience difficulty using the SYS-EYFUS proposal site may contact the Help Desk at [proposals@hq.nasa.gov](mailto:proposals@hq.nasa.gov) or call 202-479-9376.

Questions regarding SYS-EYFUS may also be directed to David Barber at NASA Peer Review Services (202-479-9030 ext. 371, [dbarber@nasaprs.com](mailto:dbarber@nasaprs.com)).

## **VIII. Other Information**

The recipient of this cooperative agreement shall be required to safeguard all confidential, private information related to scholarship applicants in accordance with: Privacy Act of 1974 (5 USC 552a, 14 CFR 1212)

Government Wide Employee Ethics Regulations (5 CFR 2635)

OMB Memo M-99-18, "Privacy Policies on Federal Web Sites" dated June 22, 1999

OMB Memo M-00-13, "Privacy Policies and Data Collection on Federal Web Sites"

NASA Privacy and Accessibility Statement, revision July 31, 2003

## **APPENDIX A**

### **Education Program Operating Principles**

To ensure program alignment and excellence, the NASA Education Office has established operating principles. Every NASA-sponsored program or activity in elementary and secondary education, higher education, and informal education is developed, implemented and evaluated according to the following six principles:

- **Customer-Focused:** Responsiveness to a need identified by the education community, customers or customer group;
- **Content:** Direct use of NASA content, people or facilities to involve educators, students and/or the public in NASA science, technology, engineering, or mathematics;
- **Pipeline:** Contribution to attracting diverse populations to NASA careers in science, technology, engineering, or mathematics;
- **Diversity:** Outreach to identified targeted groups;
- **Evaluation:** Implementation of a plan to document outcomes and demonstrate progress toward achieving objectives;
- **Partnerships and Sustainability:** Achievement of high leverage and/or sustainability through intrinsic design or the involvement of appropriate local, regional, or national partners in design, development, and dissemination.

## **APPENDIX B**

### **Electronic Submission Instructions**

In addition to one original paper proposals and five paper copies, each offeror must submit its proposal electronically via SYS-EYFUS.

Proposals are to be submitted electronically by entering the requested information through the SYS-EYFUS web site located at <http://proposals.hq.nasa.gov/proposal.cfm>.

SYS-EYFUS is an electronic system (SYS-) used by NASA Headquarters to manage research and collaborative solicitation activity, plan for the receipt of proposals, track the receipt and peer evaluation of these proposals, and, as applicable, manage funded research and collaborative activities (grants, cooperative agreements, etc.) sponsored primarily by the NASA Mission Offices (Exploration Systems, Space Operations, Science, and Aeronautics Research) and the Office of Education. SYS-EYFUS also supports the funding and administration of awards pursuant to selection of these research opportunities.

#### **User Identification (User ID)**

User ID and passwords are required by NASA security policies in order to access the SYS-EYFUS Web site and follow the instructions for "New Proposal Cover Page."

Prospective proposers can check if they have a SYS-EYFUS User ID and Password by going to <http://proposals.hq.nasa.gov/proposal.cfm> and performing the following steps:

1. Click the hyperlink for NEW USER; this will take the user to the personal information Search Page.
2. Enter the user's first and last name. SYS-EYFUS will search for matching record information in the SYS-EYFUS database.
  - (a) If matches are found, select the "correct" record from those displayed and then click on CONTINUE.
  - (b) If no exact match is found, select NONE OF THE ABOVE and click on CONTINUE. Then complete the NEW USER form. Follow the on-line instructions for updating and/or entering new data. In addition, to adding general contact information, areas of interest and expertise are required.
  - (c) If no match is found, select ADD RECORD. Follow the on-line instructions for updating and/or entering new data. In addition, to adding general contact information, areas of interest and expertise are required.

A User ID and password will be emailed to you. With the User ID and Password, login to the SYS-EYFUS Web site and select the "New Proposal Cover Page" option and follow the instructions.

As a minimum, the following information will be requested:

- CAN number, alpha-numeric identifier (Note: this may be included on the Web site template); (CAN-04-HRE-02)
- The Proposer's name, mailing address, phone number, and email address;
- The name(s) of any Co-Proposer(s) and universities or organizations;
- A descriptive title of the intended proposal; and,
- A brief (200-300 word) description of the approach to the organization's role as managing partner of STSP.

The web site provides the user future use in updating this information for the final Cover Page/Proposal Summary up to the deadline for submission of the final proposal.

### **Help with SYS-EYFUS**

Respondents without access to the Web or who experience difficulty using the SYS-EYFUS proposal site may contact the Help Desk at [proposals@hq.nasa.gov](mailto:proposals@hq.nasa.gov) or call 202-479-9376.

Questions regarding SYS-EYFUS may also be directed to David Barber at NASA Peer Review Services (202-479-9030 ext. 371, [dbarber@nasaprs.com](mailto:dbarber@nasaprs.com)).

## APPENDIX C Sample Proposal Cover Page



(Date : mmm dd, yyyy)

**XXX-XXXX-XXXX**

**Name of Submitting Institution:**

**Congressional District:**

**Certification of Compliance with Applicable Executive Orders and U.S. Code**

By submitting the proposal identified in this Cover Sheet/Proposal Summary in response to this Research Announcement, the Authorizing Official of the proposing institution (or the individual proposer if there is no proposing institution) as identified below:

- Certifies that the statements made in this proposal are true and complete to the best of his/her knowledge;
- Agrees to accept the obligations to comply with NASA award terms and conditions if an award is made as a result of this proposal; and
- Confirms compliance with all provisions, rules, and stipulations set forth in the two Certifications contained in this Announcement [namely, (i) Assurance of Compliance with the NASA Regulations Pursuant to Nondiscrimination in Federally Assisted Programs, and (ii) Certifications, Disclosures, And Assurances Regarding Lobbying and Debarment & Suspension]. Willful provision of false information in this proposal and/or its supporting documents, or in reports required under an ensuing award, is a criminal offense (U.S. Code, Title 18, Section 1001).

**NASA PROCEDURE FOR HANDLING PROPOSALS**

This proposal shall be used and disclosed for evaluation purposes only, and a copy of this Government notice shall be applied to any reproduction or abstract thereof. Any authorized restrictive notices that the submitter places on this proposal shall also be strictly complied with. Disclosure of this proposal for any reason outside the Government evaluation purposes shall be made only to the extent authorized by the Government.

**[1] ... PI Information**

<b>Name:</b>		<b>Email:</b>	
<b>Organization:</b>			
<b>City, State, Zip:</b>		<b>Country:</b>	

PI Signature and Date:

---

<b>Authorizing Official:</b>	<b>Email:</b>
<b>Title:</b>	<b>Phone:</b>
<b>Institution:</b>	
<b>Address:</b>	

AO Signature and Date:

---

**[2] ... Co-Investigator**

<b>Name:</b>		<b>Email:</b>	
<b>Organization:</b>			
<b>City, State, Zip:</b>		<b>Country:</b>	

**2] ... Co-Investigator**

<b>Name:</b>		<b>Email:</b>	
<b>Organization:</b>			
<b>City, State, Zip:</b>		<b>Country:</b>	

**[3] ... Proposal Title (Short and/or Full)**

<b>Short Title:</b>	
<b>Full Title:</b>	

**[4] ... Summary**

200-300 word abstract
-----------------------

**[5] ...Cage Code, Duns, TIN**

<b>Cage Code:</b>	
<b>DUNS Number</b>	
<b>TIN Number:</b>	

**[6]...Proposed Start Date:** \_\_\_\_\_  
**Proposed End Date:** \_\_\_\_\_

**[7]...Organization Type:** \_\_\_\_\_

**[8]...International Participants (Yes/No)**

**[9]...Government Participant (Yes/No)**

**[10] ... Budget**

Type	Year 1	Year 2	Total
<b>Direct Labor</b>			
<b>Other Direct Costs - Subcontracts</b>			
- Consultants			
- Equipment			
- Supplies			
- Travel			
- Other			
<b>Indirect Costs</b>			
<b>Other Applicable Costs</b>			
<b>Subtotal - Estimated Costs:</b>			
<b>Less: Proposed Cost Sharing - Cost Sharing:</b>			
<b>Budget Total</b>			

## **APPENDIX D**

### **Budget Instructions**

NOTICE: INFORMATION CONTAINED ON THE BUDGET SUMMARY IS NOT TO BE RELEASED OUTSIDE OF THE GOVERNMENT WITHOUT THE EXPRESS WRITTEN CONSENT OF THE RECIPIENT.

1. Direct Labor (salaries, wages, and fringe benefits): Attachments should list number and titles of personnel, amounts of time to be devoted to the grant, and rates of pay.
2. Other Direct Costs:
  - a. Subcontracts: Attachments should describe the work to be subcontracted, estimated amount, recipient (if known), and the reason for subcontracting.
  - b. Consultants: Identify consultants to be used, why they are necessary, the time they will spend on the project, and rates of pay.
  - c. Equipment: List separately. Explain the need for items costing more than \$5,000, unless a lower threshold has been established by your institution for classifying such purchases as equipment. Describe the basis for estimated cost. General-purpose equipment is not allowable as a direct cost unless specifically approved by the grant officer. Any equipment purchase requested to be made as a direct charge under this grant must include the equipment description, how it will be used in the conduct of the basic research proposed, why it cannot be purchased with indirect funds, and a statement certifying that the equipment will be used exclusively for research and not for general business or administrative purposes.
  - d. Supplies: For items below the threshold established for equipment, provide the general categories of needed supplies, the method of acquisition and the estimated cost.
  - e. Travel: Describe the purpose of the proposed travel in relation to the grant and provide the basis of the estimate, including information on destination and number of travelers where known.
  - f. Other: Enter the total of direct costs not covered by 2a through 2e. Attach an itemized list explaining the need for each item and the basis for the estimate.
3. Indirect Costs: Identify indirect cost (sometimes called facilities and administrative or F&A cost) rate(s) and base(s) as approved by the cognizant Federal agency, including the effective period of the rate. Provide the name, address, and telephone number of the Federal agency official having cognizance. If unapproved rates are used, explain why, and include the computational basis for the F&A expense pool and corresponding allocation base for each rate.
4. Other Applicable Costs: Enter total, explaining the need for each item.

5. Subtotal-Estimated Costs: Enter the sum of items 1 through 4.
6. Less Proposed Cost Sharing (if any): Enter any amount proposed. If cost sharing is based on specific cost items, identify each item and amount in an attachment.
7. Carryover Funds (if any): Enter the dollar amount of any funds that are expected to be available for carryover from the prior budget period. Identify how the funds will be used if they are not used to reduce the budget. NASA officials will decide whether to use all or part of the anticipated carryover to reduce the budget. Not applicable to 2nd-year and subsequent-year budgets submitted for the award of a multiple year cooperative agreement.
8. Total Estimated Costs: Enter the total after subtracting items 6 and 7 from item 5

## **APPENDIX E**

### **Compliance Certifications**

By signing the proposal cover page generated by SYS-EYFUS, the Authorizing Official of the submitting institution certifies compliance with the Federal laws and regulations regarding nondiscrimination, lobbying, and debarment and suspension, as described below. No additional certification document is required.

#### **A. Nondiscrimination**

##### **CERTIFICATION OF COMPLIANCE WITH THE NASA REGULATIONS PURSUANT TO NONDISCRIMINATION IN FEDERALLY ASSISTED PROGRAMS**

The (Institution, corporation, firm, or other organization on whose behalf this assurance is signed, hereinafter called "Applicant ") hereby agrees that it will comply with Title VI of the Civil Rights Act of 1964 (P.L. 88-352), Title IX of the Education Amendments of 1962 (20 U.S.C. 1680 et seq.), Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and the Age Discrimination Act of 1975 (42 U.S.C. 16101 et seq.), and all requirements imposed by or pursuant to the Regulation of the National Aeronautics and Space Administration (14 CFR Part 1250) (hereinafter called "NASA") issued pursuant to these laws, to the end that in accordance with these laws and regulations, no person in the United States shall, on the basis of race, color, national origin, sex, handicapped condition, or age be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the Applicant receives federal financial assistance from NASA; and hereby give assurance that it will immediately take any measure necessary to effectuate this agreement.

If any real property or structure thereon is provided or improved with the aid of federal financial assistance extended to the Applicant by NASA, this assurance shall obligate the Applicant, or in the case of any transfer of such property, any transferee, for the period during which the real property or structure is used for a purpose for which the federal financial assistance is extended or for another purpose involving the provision of similar services or benefits. If any personal property is so provided, this assurance shall obligate the Applicant for the period during which the federal financial assistance is extended to it by NASA.

This assurance is given in consideration of and for the purpose of obtaining any and all federal grants, loans, contracts, property, discounts, or other federal financial assistance extended after the date hereof to the Applicant by NASA, including installment payments after such date on account of applications for federal financial assistance which were approved before such date. The Applicant recognized and agrees that such federal financial assistance will be extended in reliance on the representations and agreements made in this assurance, and that the United States shall have the right to seek judicial enforcement of this assurance. This assurance is binding on the Applicant, its successors, transferees, and assignees, and the person or persons whose signatures appear below are authorized to sign on behalf of the Applicant.

## **B. Lobbying and Debarment & Suspension**

### **CERTIFICATIONS, DISCLOSURES, AND ASSURANCES REGARDING LOBBYING AND DEBARMENT & SUSPENSION**

#### **A. LOBBYING**

As required by Section 1352, Title 31 of the U.S. Code, and implemented at 14 CFR Part 1271, as defined at 14 CFR Subparts 1271.110 and 1260.117, with each submission that initiates agency consideration of such applicant for award of a Federal contract, grant, or cooperative agreement exceeding \$100,000, the applicant must certify that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit a Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

#### **B. GOVERNMENT-WIDE DEBARMENT AND SUSPENSION**

As required by Executive Order 12549, and implemented at 14 CFR 1260.510, for prospective participants in primary covered transactions, as defined at 14 CFR Subparts 1265.510 and 1260.117-

- (1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
  - (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any Federal department or agency;
  - (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for

commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

- (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (l)(b) of this certification; and
  - (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- (2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

## APPENDIX F Proposal Checklist

Proposal Content	Page Guideline	Section and Appendix References
<p><b>1. PROPOSAL COVER PAGE</b></p> <ul style="list-style-type: none"> <li>▪ <b>PI Contact Information and Signature:</b> The Program Manager or PI must sign the original. Please include the contact information for the PM</li>   <li>▪ <b>Authorizing Official Contact Information and Signature:</b> The proposal cover sheet shall be signed by an institutional official who is authorized to certify institutional support and sponsorship of the investigation and of the management of the proposal. (The electronic proposal submission process located at <a href="http://proposals.hq.nasa.gov/proposal.cfm/">http://proposals.hq.nasa.gov/proposal.cfm/</a> generates this form).</li>   <li>▪ <b>Team Members and other Key Personnel:</b> Please include any Teaming partners or Other Key Personnel on the cover sheet. Signatures are not necessary. Individuals must each register him/herself in this NASA database in order to be listed in this section; the proposing PI may not register someone as a Team Member.</li>   <li>▪ <b>Proposal Abstract</b> (200-300 words). Include a description of the project's objectives, number of participants in the project, method of approach, and the measurable outcomes. A sample electronic Proposal Abstract page is included in Appendix C.</li>   <li>▪ <b>Full and Short Titles:</b> Please enter a long and short title. This will help during proposal peer reviews.</li>   <li>▪ <b>Proposed Cost:</b> The budget section of the electronic proposal cover page should include a budget breakdown for each year of the proposed work (3 years). The electronic form will provide a total summary for the entire period of the proposal. See Budget Guidelines in Appendix D.</li>   <li>▪ <b>DUNS, CAGE, and TIN Numbers</b></li>   <li>▪ <b>Please fill out all information as leaving sections blank will be an indication of non-compliance with the solicitation.</b></li> </ul> <p>The length of the electronic proposal cover page (as generated via SYS-EYFUS) may vary depending upon the length of the proposal abstract/summary. <u>However, the total cover-page packet, including the summary and budget figures, will count as only 1 page total.</u> A sample cover page packet is included in Appendix A.</p>	<p>1 (Printed SYS-EYFUS cover page will be counted as one page regardless of actual length.)</p>	<p>IV.B.3-4,          Appendix B, C</p>

<b>Proposal Content</b>	<b>Page Guideline</b>	<b>Section and Appendix References</b>
<p><b>To print the Proposal Cover Page</b>, select "View" and then use the "Print" Button on your Internet browser menu. Make sure your printed copy includes the Abstract and the breakdown of Budget Categories. Submit this Proposal Cover Page with your proposal hard copy.</p>		
<p><b>2. Table of Contents</b></p>	<p>1</p>	
<p><b>3. Organizational Commitment for each member institution</b></p>		<p><b>IV.B.5.a</b></p>
<p><b>Suggested Structure:</b></p>	<p>Up to 33</p>	
<p><b>4. Outline of Proposed Strategy, Approach, and Methodology</b></p>		<p><b>IV.B.5.b</b></p>
<p><b>5. Proposed Implementation Schedule</b></p>		<p><b>IV.B.5.c</b></p>
<p><b>6. Program Responsibilities and Coordination</b></p>		<p><b>IV.B.5.d</b></p>
<p><b>7. Program Evaluation</b></p>		<p><b>IV.B.5.e</b></p>
<p><b>8. Proposed Budget/Cost Summary</b></p>		<p><b>IV.B.5.f</b></p>

## **APPENDIX G**

### **Definitions**

Full-time student means a student enrolled in at least 24 semester or trimester credit hours, 36 quarter credit hours, or 900 contact hours per award year.

Institution of higher education means an accredited public or private educational institution in the United States that provides an educational program for which the institution awards a bachelor's degree or provides not less than a 2-year program that is acceptable for full credit toward such a degree. For the purposes of this scholarship program, an institution may be a college, university, or community college.

Research internship means a mentor-directed project or assignment designed to enhance the scholarship participant's understanding and context of his or her academic discipline; conducted at a NASA Center or affiliate installation. Scholarship recipients will receive a stipend for this research internship; however, any time dedicated to this effort will not be creditable towards either federal service computation or towards the scholarship recipient's accumulated NASA service obligation.

Rising freshman means a person who will have completed all necessary requirements to receive a high school diploma, or equivalent, by the end of the current award year, and who will begin the first year of academic study towards an Associate's or Bachelor's degree in the subsequent Fall term (semester, trimester, quarter, etc.).

Rising sophomore means a person who will have completed all necessary requirements, as defined by the institution, to achieve sophomore status by the end of the current award year and/or who will begin the second year of academic study towards an Associate's or Bachelor's degree in the subsequent Fall term (semester, trimester, quarter, etc).

Rising junior means a person who will have completed all necessary requirements, as defined by the institution, to achieve junior status by the end of the current award year and/or who will begin the third year of academic study towards a Bachelor's degree in the subsequent Fall term (semester, trimester, quarter, etc.).

Rising senior means a person who will have completed all necessary requirements, as defined by the institution, to achieve senior status by the end of the current award year and/or who will begin the fourth, or final, year of academic study towards a Bachelor's degree in the subsequent Fall term (semester, trimester, quarter, etc.).

Service obligation means an obligation of an individual to serve full-time as an employee of the National Aeronautics and Space Administration (NASA). The service obligation equates to serving a two-year (twenty-four consecutive months) term appointment with NASA for each academic year under scholarship; four year statutory maximum obligation.

## **APPENDIX H**

### **STSP Implementation Plan Draft**

Note: Appendices referred to in this draft are appendices to the implementation plan (and not included here), not appendices to this CAN.

#### **1.0 INTRODUCTION**

The National Aeronautics and Space Act of 1958, as amended, directs NASA to "preserve the role of the United States as a leader in aeronautical and space science and technology." To achieve this goal, we, as a nation, must continue to develop, attract and maintain a highly skilled, motivated, and talented technical workforce. Unfortunately, the projected number of undergraduates in the science and engineering job pipeline may not be sufficient to meet the critical hiring needs over the next two decades. To help address this potential shortfall The NASA Workforce Flexibility Act of 2004 authorized NASA to establish the Science and Technology Scholarship Program (STSP).

As outlined in the **Vision for Space Exploration**, the **NASA Strategic Plan**, and the **NASA Education Enterprise Strategy of 2003**, a strategic goal of NASA's mission is "to inspire and motivate students to pursue careers in science, technology, engineering and mathematics.". NASA currently has a wide array of education programs that serve the K-12 and higher education research communities. To ensure alignment and excellence of all our education endeavors, the Education Enterprise has established operating principles that guide the development, implementation, and evaluation of all NASA education programs. The Education Program Operating Principles are outlined and described in Appendix E.

In exchange for tuition scholarships and research stipend support, STSP students must agree to fulfill a service obligation following graduation. The service obligation equates to serving a two-year appointment with NASA for each academic year under scholarship. Students under scholarship for two or more academic years will have a maximum service obligation of four years. Participation in STSP is limited to four academic years. NASA may also elect to defer the obligation to allow students to pursue graduate level studies in a NASA-approved field of study.

In addition to scholarship funding support of up to \$20,000 per academic year, STSP participants will receive up to \$10,000 annually to support their research internships and activities both at a designated host NASA Center and at the participant's institution. Each STSP participant will be assigned a NASA-affiliated technical mentor who will coordinate and help structure student research activities, as well as provide each student with increased exposure to NASA's exciting mission, unique research facilities, and skilled workforce.

#### **2.0 PROGRAM OVERVIEW**

- Scholarship eligibility for up to 4 academic years

- ❑ Scholarship recipients will receive up to \$20,000 tuition support per year (tuition, fees, and other expenses)
- ❑ Scholarship recipients will receive up to \$10,000 stipend support for annual research internship (mandatory) at a NASA Center/Installation and NASA-related research activities at home academic institution
- ❑ Scholarship recipients incur two years of obligated NASA service for each full academic year of scholarship enrollment; four year statutory maximum obligation
- ❑ Scholarship recipient's academic programs approved and progress reviewed/approved annually by NASA
- ❑ Scholarship recipients must maintain an overall academic standing as required by the college/university, including a cumulative 3.0 GPA in all major coursework, to remain in the scholarship program.
- ❑ Financial need, as determined by the academic institution, may be considered
- ❑ Service obligation to begin within 60 days of graduation
- ❑ Deferment option for graduate studies (with NASA approval)
- ❑ Obligation can be served as a term appointment
- ❑ Penalties for breach of contract:
  - Enrollment year(s): repayment of scholarship tuition costs if academic year not completed (repay scholarship-related expense costs only, not stipend)
  - Upon graduation: repayment of scholarship tuition costs if service obligation not met (repay 3 times total scholarship expenses)
- ❑ Anticipate "steady-state" pipeline of 200-225 students; will adjust intake according to Competency Management System's projected gaps
- ❑ First year: ~25 rising freshmen; ~75 rising sophomores; ~75 rising juniors; ~25 rising seniors
- ❑ NASA to establish annual targeted academic disciplines/goals (% in engineering, natural/life sciences, mathematics, computer science, etc.); adjust intake annually to align with graduations, withdrawals, and projected NASA workforce requirements
- ❑ NASA Missions/Centers will have an active role in discipline allocation, participant selection and placement
- ❑ NASA will competitively select a Program Partner to administer and coordinate program activities

### **3.0 PROGRAM CONTEXT AND TERMS**

#### **3.1 Authority**

PL 108-201, NASA Workforce Flexibility Act, effective February 24, 2004; 42 U.S.C. 2451, et. seq. (the Space Act)

#### **3.2 References**

5 CFR 213.3102(r), Office of Personnel Management, Excepted Service

### **3.3 Definitions**

Aerospace Technologist (AST) Position means a scientific, engineering, or other technical NASA position engaged in aerospace related professional research, development, operations, or other related work.

Appropriate field of study means an academic field of study in a NASA-related discipline such as engineering, mathematics, computer science or physical/life sciences required for an Aerospace Technologist (AST) or Research position.

Award means a scholarship provided to an eligible student for tuition, fees, and other educational expenses in exchange for a service obligation of two years of NASA service per academic scholarship year, with a statutory maximum of four years of service obligation.

Award period means that period of time, as defined by the institution, for which an award is given (examples: semester, trimester, quarter, contact hours, etc).

Award year means the period from August 1, of one year through July 31, of the subsequent year.

Educational expenses means the cost of tuition and other reasonable educational expenses, in part or in whole, including fees, books, supplies, and laboratory expenses.

Full-time student means a student enrolled in at least 24 semester or trimester credit hours, 36 quarter credit hours, or 900 contact hours per award year.

Hardship or Extreme Hardship includes proven cases of both physical and mental disability or illness which prevent the individual from working. The definition also includes proven cases of extreme financial hardship, such as conditions preventing the scholarship recipient from meeting the cost of food, housing, clothing, essential transportation, and medical care for the scholarship recipient and dependents.

Institution of higher education means an accredited public or private educational institution in the United States that provides an educational program for which the institution awards a bachelor's degree or provides not less than a 2-year program that is acceptable for full credit toward such a degree. For the purposes of this scholarship program, an institution may be a college, university, or community college.

Mission Directorate means one of NASA's primary mission areas (Science; Exploration Systems; Aeronautics Research; Space Operations).

Research internship means a mentor-directed project or assignment designed to enhance the scholarship participant's understanding and context of his or her academic discipline; conducted at a NASA Center or affiliate installation. Scholarship recipients will receive a stipend for this research internship; however, any time dedicated to this effort will not be creditable towards either federal service computation or towards the scholarship recipient's accumulated NASA service obligation.

Rising freshman means a person who will have completed all necessary requirements to receive a high school diploma, or equivalent, by the end of the current award year, and who will begin the first year of academic study towards an Associate's or Bachelor's degree in the subsequent Fall term (semester, trimester, quarter, etc.).

Rising sophomore means a person who will have completed all necessary requirements, as defined by the institution, to achieve sophomore status by the end of the current award year and/or who will begin the second year of academic study towards an Associate's or Bachelor's degree in the subsequent Fall term (semester, trimester, quarter, etc.).

Rising junior means a person who will have completed all necessary requirements, as defined by the institution, to achieve junior status by the end of the current award year and/or who will begin the third year of academic study towards a Bachelor's degree in the subsequent Fall term (semester, trimester, quarter, etc.).

Rising senior means a person who will have completed all necessary requirements, as defined by the institution, to achieve senior status by the end of the current award year and/or who will begin the fourth, or final, year of academic study towards a Bachelor's degree in the subsequent Fall term (semester, trimester, quarter, etc.).

Service obligation means an obligation of an individual to serve full-time as an employee of the National Aeronautics and Space Administration (NASA). The service obligation equates to serving a two-year (twenty-four consecutive months) term appointment with NASA for each academic year under scholarship; four year statutory maximum obligation.

STSP Advisory Board means the Agency-level entity that reviews program policies, intake targets and program progress.

Transfer-degree program means a course of study at a two-year institution comprised of transferable college level credit courses fulfilling both the general education requirements of the receiving institution and the requirements for entrance as a junior at a four-year institution.

## **4.0 PROGRAM MANAGEMENT**

### **4.1 NASA Administrator**

The Administrator of the National Aeronautics and Space Administration may carry out a program for contractual agreements to provide qualified individuals, selected by NASA, scholarships at accredited institutions of higher education in academic programs appropriate for careers in occupations needed by the Agency in exchange for a service requirement following graduation. The Administrator delegates authority to the NASA Chief Education Officer to execute STSP program management through the STSP Program Manager and the STSP Center Coordinators; with the advice of the STSP Advisory Board; and, with the collaboration of the STSP Program Partner.

#### **4.2 STSP Program Manager**

The STSP Program Manager oversees STSP implementation. The STSP Program Manager is the principal liaison with the NASA STSP Center Program Coordinators and Program Partner.

The STSP Program Manager is responsible for coordinating performance reports on achievement of goals and objectives; preparing preliminary budget requests; aligning and integrating the program metrics tracked by the Program Partner; and, establishing programmatic interfaces with the Center Program Coordinators. The Program Manager also serves as staff to the STSP Advisory Board.

#### **4.3 STSP Center Program Coordinators**

The STSP Center Program Coordinators serve as the liaison between Center/Installation officials/management, the STSP Program Partner, and the STSP Program Manager. The Center Program Coordinators also maintain responsibility for identifying appropriate Center technical managers to serve on scholarship selection panels; recruiting and assigning the technical mentors for the scholarship program; identifying potential student research internship positions; and, aligning STSP service obligation requirements with Center competency gaps.

#### **4.4 STSP Advisory Board**

***The role of the STSP Advisory Board is to establish and monitor academic discipline and intake targets; evaluate the STSP using program performance metrics, program progress, and achievement relative to NASA's skill and competency targets as outlined in the Agency's Strategic Human Capital Implementation Plan; and to review and amend program policies and guidance accordingly. The Advisory Board will also review all program waiver and graduate deferment requests and make recommendations to the Administrator, as appropriate. Advisory Board membership includes the Associate Administrators for the NASA Mission Directorates; the NASA Chief Education Officer; the NASA Chief Human Capital Officer, and the Associate Administrator for Institutions and Management.***

***The Chief Education Officer serves as the STSP Advisory Board Chair. The Director, NASA Higher Education Division, serves as the Executive Secretary. Program implementation responsibility is delegated to the Director, NASA Higher Education Division; the STSP Program Manager is a staff position to the Director, NASA Higher Education Division.***

#### **4.5 STSP Program Partner**

The STSP Program Partner collaborates with NASA to develop, implement and administer the Science and Technology Scholarship Program. The responsibilities of the

Program Partner shall be as defined in the NASA Cooperative Agreement No. NNH-04-Z-NH-002-C.

The STSP Program Partner will:

- A. develop and maintain an STSP web-site in full compliance with the guidelines and protocols of the NASA Portal;
- B. develop and implement a program awareness strategy to include activities, conferences, meetings, scholarship databases, promotional materials, or other appropriate methods through which NASA STSP information can be disseminated;
- C. outline and monitor a program implementation critical path to include events, requirements, and dates necessary to ensure timely screening, selection and awarding of the undergraduate scholarships no later than April 2005 with scholarship coverage commencing with the Fall 2005 academic session; it is anticipated that the program's initial year will focus intake primarily on rising sophomore and junior undergraduate students;
- D. convene an annual STSP panel, including program management and representation from the NASA centers, to determine needed competencies, assess applicable research and industry trends, and review scope of applications received; other panel membership to include representatives from aerospace-related professional societies, industry partners and the university research community with NASA compliance to the Federal Advisory Committee Act as applicable;
- E. develop a methodology of tracking student progress, including review of academic performance, evaluation of scholarship renewal/continuation requests, notification of proposed changes to approved academic programs of study, and identification of graduating seniors who are either ready to transition into the workforce or who are requesting approval to defer and pursue graduate-level studies in an appropriate field of study;
- F. collect and submit annually to the STSP Advisory Board data on program effectiveness using evaluation metrics that include and expand on the following suggested program metrics:
  - ✓ Number of student applications
  - ✓ Number of scholarships awarded
  - ✓ Percentage of students selected that represent the top 10 percent of students in their field of study at their home institution.
  - ✓ Percentage of scholarship recipients remaining in the program for the duration of their degree program
  - ✓ Percentage of scholarship recipients that complete the required service commitment
  - ✓ Ratio of graduating scholarship recipients to number of entry-level critical need positions at NASA field centers

- ✓ Percentage of scholarship students remaining with NASA in critical positions for two years beyond the required service period.
- ✓ Percentage of scholarship students remaining with NASA in critical positions for five years beyond the required service period.
- ✓ Percentage of scholarship students working as full-time NASA employees that receive outstanding performance appraisals.

#### **4.6 Program Evaluation**

The STSP Program Manager, in collaboration with the STSP Program Partner and the STSP Center Program Coordinators, will establish an STSP Program Effectiveness Framework. This Framework will be outcome-based; it will track STSP program evaluation metrics on an annual basis, as well as a comprehensive assessment of the STSP Program Partner's effectiveness on a tri-annual basis.

Program baseline data will be identified or established in year one; subsequent evaluation metrics will track impact/outcome metrics annually. During the first three years of implementation, program metrics will focus on establishing/identifying baseline data, and near-term student recruitment and academic retention goals; each subsequent three-year cycle will include longitudinal placement, service obligation and career retention data and trend analysis.

The STSP Effectiveness Framework will be outlined in greater detail as part of the STSP Implementing Regulations.

### **5.0 SCHOLARSHIP AWARD REQUIREMENTS**

The NASA Science and Technology Scholarships will be awarded on a competitive basis to students who demonstrate a commitment to pursuing careers in the NASA-related fields of engineering, physical science, Earth science, biomedical and life sciences, aeronautics, computer science, and/or other designated disciplines critical to NASA's mission. Specific areas of study will be provided annually by NASA based upon competency requirements.

#### **5.1 Eligibility**

- A. The applicant must be a U.S. citizen or permanent resident.
- B. The applicant must be enrolled in or have accepted an offer for enrollment as a full-time student at an accredited institution of higher education. Applicants from two-year institutions must also be enrolled in a transfer-degree program.
- C. The applicant must be either a rising freshman or sophomore having accepted an offer for enrollment at or attending a two-year institution; or a rising freshman,

- sophomore, junior, or senior having accepted an offer for enrollment at or attending a four-year institution.
- D. The applicant must pursue academic coursework and curricula that aligns directly with the identified/projected NASA workforce skill competency gaps (engineering, physical/natural sciences, computer science, mathematics, etc.) as determined by the STSP Advisory Board.
  - E. At the time of application, the applicant must be in overall good academic standing as required by the college/university, including a cumulative 3.0 GPA in all major coursework. If the applicant is a rising freshman, the applicant must meet the following criteria: high school senior with a minimum, cumulative GPA of 3.2 on a 4.0 scale, expressed intent to major in one of the targeted academic disciplines (engineering, natural/life sciences, mathematics, computer science, etc), and proof of acceptance of an offer for enrollment at an applicable degree-granting program. Standardized test scores may also be used as criteria for selection.
  - F. The applicant, at the time of the initial scholarship award, must not be a Federal employee as defined in section 2105 of title 5 of the United States Code.
  - G. The applicant must be free of any Federal adjustment liens. Applicants who have a lien against their property arising from a court judgment entered against them for a debt owed to the United States or arising from a civil or criminal proceeding regarding a debt shall not be eligible for a scholarship until the judgment lien has been paid in full or otherwise satisfied.
  - H. The applicant must not have a State court judgment relating to a Federal debt nor such judgment lien against his or her property at the time of application.
  - I. The applicant must be free of delinquent Federal loans, including, but not limited to, Federally guaranteed or Federally sponsored student loans that are more than 31 days past due on a scheduled payment. Applicants who are delinquent borrowers shall be ineligible for the scholarship.
  - J. Male applicants must provide evidence of compliance with the requirements of the Selective Service Administration.

## **5.2 Suitability**

In addition to the basic program requirements, applicants must also satisfy the following suitability requirements for Federal employment:

- A. The applicant must demonstrate suitability for Federal employment per guidelines provided by the U.S. Office of Personnel Management.
- B. The applicant must have no conflicting service obligation
  1. to a Federal, State, or local agency or other entity for professional practice;

2. for an extended period of service immediately following completion of the academic program of study for which the scholarship was provided.

### **5.3 Equal Opportunity**

No applicant shall be denied consideration for the STSP scholarship award on the basis of race, national origin, religion, color, gender, age, or disability.

### **5.4 Approval of Academic Program of Study**

In order to obtain approval, the applicant must provide sufficient evidence that the program of study leads towards a Bachelor's degree in an appropriate field of study.

### **5.5 Academic Standing**

Scholarship recipients must work towards the completion of all requirements leading to a Bachelor's degree, in an appropriate field of study, while maintaining an overall academic standing as required by the college/university, including a cumulative 3.0 GPA (on a 4.0 scale), or better, in all major coursework.

Scholarship recipients approved for a deferment to pursue graduate-level studies are expected to maintain an acceptable level of academic standing; this will entail a minimum grade point average of 3.0 (on a 4.0 scale), or higher, as determined by the policy of their parent academic institution.

## **6.0 SCHOLARSHIP AWARDS**

### **6.1 Authorized Uses**

The scholarship award may be used to cover the cost of tuition and other reasonable educational expenses, in part or in whole, including fees, books, supplies, and laboratory expenses. All funds shall be paid directly to the academic institution on behalf of the STSP scholarship recipient.

The scholarship award will not be applied to tuition costs unrelated to the degree program, membership dues for student societies or associations, or loan-processing fees.

### **6.2 Limitation of Amount**

The Science and Technology Scholarship Program will provide up to **\$20,000** per individual scholarship award, per award year, to cover tuition, fees, and other authorized expenses.

Individual scholarship award amounts may vary based on tuition costs.

### **6.3 Technical Mentor Assignment**

A technical mentor will be assigned to each scholarship recipient. The mentor is expected to provide the student with increased exposure to the aerospace community through NASA's exciting missions, unique research facilities, and skilled workforce. The mentor may be a NASA employee, NASA alumnus, or other NASA affiliate. The mentor assignment will be for one year with an option to extend the assignment upon renewal of the scholarship award. All mentor assignments are subject to STSP Center Program Coordinator approval.

### **6.4 Terms of Scholarship Renewal**

Subject to the availability of funds appropriated by the U.S Congress, NASA may approve requests to renew the scholarship award annually if at the time of the request:

- A. The applicant is a rising sophomore, junior or senior continuing at a satisfactory level of academic standing in an approved academic program of study leading toward a bachelor's degree in an appropriate field of study; or
- B. The applicant is transferring from a two-year institution to continue at a satisfactory level of academic standing in an approved academic program of study leading toward a bachelor's degree in an appropriate field of study at a four-year institution; and
- C. The total period of the applicant's scholarship award is currently less than four years; and
- D. The applicant is otherwise eligible for an STSP award.

## **7.0 SERVICE OBLIGATIONS**

### **7.1 Service Requirement**

Each scholarship recipient must fulfill a two-year service obligation in exchange for each year of funding awarded to the recipient through the STSP with a statutory maximum obligation of four years. (For example, a scholarship recipient receiving scholarship support under STSP for two academic years would incur a four-year NASA service obligation; if that student were to receive scholarship support for a total of three or four academic years, their NASA obligated service is limited to four years total). Failure to

fulfill the service obligation following graduation constitutes a breach of the scholarship agreement and the recipient will be subject to the Recovery of Damages provision described therein.

## 7.2 Service Assignments

- A. All service obligations shall be fulfilled via a full-time civil service term appointment with the National Aeronautics and Space Administration.**
- B. A scholarship recipient may be assigned to one of the following NASA Centers or subordinate installations: Ames Research Center (California); Dryden Flight Research Center (California); Glenn Research Center (Ohio); Goddard Space Flight Center (Maryland); Jet Propulsion Laboratory (California); Johnson Space Center (Texas); Kennedy Space Center (Florida); Langley Research Center (Virginia); Marshall Space Flight Center (Alabama); and Stennis Space Center (Mississippi). Assignment decisions will factor in both NASA workforce needs and student career interests.
- C. A scholarship recipient may be assigned to NASA Headquarters (Washington, D.C.); however, assignment priority will be given to meet the critical hiring needs of the NASA Centers and subordinate installations primarily for research and technical activities.

## 7.3 Service Position and Appointment

- A. NASA is authorized to provide an Aerospace Technologist (AST), Research, or other qualified position to each scholarship recipient who successfully completes the degree requirements for which the scholarship was awarded.
- B. The AST or other position may be in areas such as Space Science, Earth Science, Life Sciences and Systems, Fluid and Flight Mechanics, Materials and Structures, Propulsion and Power, Flight Systems, Measurements and Instruments, Data Systems, Facilities, Operations, or other areas deemed by the NASA Administrator as critical to the NASA mission.**
- C. The service appointment shall be per the authority provided in 5 CFR 213.3102(r) for positions established in support of programs requiring a period of Government service in exchange for educational, financial, or other assistance. The appointment shall not exceed a period of four years.
- D. Per the minimum requirements for the entry grade levels for AST and other positions, scholarship recipients may be appointed at the following grade levels:**

1. *At the GS-7 level if the degree requirements are completed for a Bachelor's degree, the scholarship criteria are satisfied by the completion of the academic program, and all other qualification requirements are met.*
2. At the GS-9 level, after completion of an approved graduate study deferment period, if the scholarship recipient has completed the degree requirements for a Master's degree in an appropriate field of study or completed two years of applicable graduate level studies; or
3. At the GS-11 level, after completion of an approved graduate study deferment period, if the scholarship recipient has completed the degree requirements for a Doctor of Philosophy in an appropriate field of study or completed three years of applicable graduate level study; or
4. At the GS-12 level (Research Positions only), after completion of an approved graduate study deferment period, if the scholarship recipient has completed the degree requirements for a Doctor of Philosophy in an appropriate field of study.

#### **7.4 Period of Obligated Service**

The recipient is obligated to provide a twenty-four month period of service for each academic year of funding awarded through the STSP with a maximum service obligation of 48 months. The recipient shall begin his or her service obligation not later than 60 days after obtaining the degree for which the scholarship award was provided.

#### **7.5 Deferment of Obligation**

- A. NASA may defer the service obligation of a scholarship recipient if such a deferment is appropriate.
- B. A scholarship recipient who seeks a deferment must make a request in writing to the STSP Advisory Board.
- C. A deferment of obligation may be granted to an individual who:
  1. Enrolls in a full-time program of study at the graduate-level in an appropriate field of study at an accredited institution of higher education. The deferment period shall not exceed two-and-a-half years, or thirty consecutive months, if the program of study is towards the degree requirements for a Master of Science/Master of Arts in an appropriate field of study, or six years, seventy-two months inclusive, if towards degree requirements for a Doctor of Philosophy in an appropriate field of study; or

2. Is currently serving, or is required to serve, on active duty as a member of the armed services of the United States, for a period not to exceed three years; or
3. Has a disability or illness which prevents the individual from working, for a period not to exceed three years; or
4. Is unable to accept an appointment as required by the agreement by reason of the care he or she is providing to a disabled or ill family member, for a period not to exceed 12 months.

D. The following terms and conditions apply to the deferment of obligations:

1. If the deferment is granted for the pursuit of graduate studies, the recipient must pursue graduate studies that are approved for deferment by NASA and must not incur conflicting service obligations through such programs of study.
2. If the deferment is granted for the pursuit of graduate studies, the recipient must make no changes in the type or period of the approved program of study for which the deferment was granted without prior written approval of the STSP Advisory Board.
3. If the deferment is granted for other than pursuit of graduate studies, the recipient must notify the STSP Advisory Board of any changes that affect the status for which the deferment was granted within 15 days of the change.
4. The recipient must begin service immediately upon expiration of the approved deferment period.

## **8.0 CONTRACTUAL SERVICE AGREEMENT**

Applicants will be required to submit documentation as determined necessary by NASA, including a Contractual Service Agreement (CSA). The CSA outlines the obligations of NASA and the applicant. Signatures of both parties will be required before the CSA is valid. An example of the STSP CSA is included in *Appendix D*.

### **8.1 Obligations of NASA**

Subject to the availability of funds appropriated by the U.S. Congress, NASA agrees to:

- A. Provide the recipient with a tuition scholarship for the applicable award year if the recipient:
  - (1) Is enrolled, or has accepted an offer for enrollment, as a full-time student in an accredited institution of higher education degree program, and

- (2) Is pursuing an approved program of study for the academic year appropriate for a career in a profession consistent with the goals of the STSP.
- B. If applicable, enter into contract with the recipient's educational institution under which the amounts provided in the scholarship for tuition, fees, and other authorized expenses are paid directly to the institution.
- C. Obligate such funds as necessary to ensure that sufficient funds are available to award a scholarship in an amount not to exceed **\$20,000** upon signature, by both parties, on the STSP Contractual Service Agreement.
- D. Provide scholarship program graduates with positions as an Aerospace Technologist (AST), Researcher, or other qualified position, at a NASA Installation, in accordance with the provisions of 5 CFR 213.3102(r) and section 7.0 of this implementation plan.

## **8.2 Obligations of Scholarship Recipients**

Upon selection and acceptance of the terms identified in the Contractual Service Agreement, the recipient must agree to:

- A. Maintain full-time enrollment until completion of the academic program of study for which the scholarship is provided.
- B. Maintain an acceptable level of academic standing in accordance with guidelines established for the STSP during the year(s) for which the scholarship is provided.
- C. Submit to the STSP Advisory Board, for approval, a proposed academic program of study spanning all applicable years of potential scholarship coverage.
- D. Obtain approval from the STSP Advisory Board before altering an approved program of study.
- E. Participate in structured, mentor-directed research internships at a NASA Center or Installation. These research internships will be identified by the program participant's technical mentor, and will be designed to complement the participant's academic program of study. In general, these assignments will be 10-12 weeks in duration, and will be accomplished each year that the participant is enrolled in the STSP. Students will receive a research stipend for their research/internship activities. These research internship stipends will be paid directly to each student; be consistent in sum and rate with other NASA-sponsored undergraduate student research program stipend sums and rates but not exceed \$10,000 per research internship; be considered separate and apart from any scholarship-related cost thresholds; and, not require reimbursement to NASA in the event that the participant otherwise fails to fulfill his or her academic or service obligations.
- F. Fulfill the service obligation in accordance with guidelines established for the STSP. The service obligation must begin not later than sixty days after obtaining

the degree for which the scholarship award was provided, unless deferred with NASA's approval. If a deferral is granted, service will begin immediately upon expiration of the deferral period.

G. Comply with the policies, guidelines, and provisions of the STSP per PL 108-201.

### **8.3 Penalties for Breach of the Scholarship Agreement**

#### *A. Failure to Complete Academic Training*

1. An individual who has entered into a written Service Obligation Agreement with NASA and who:
  - a. Fails to maintain an acceptable level of academic standing in the approved program of study for which the scholarship was awarded; or
  - b. Voluntarily terminates such enrollment; or
  - c. Is dismissed from the educational institution before completion of such program of study;

in lieu of any service obligation arising under such contract shall be liable to the United States for the amount which has been paid to an educational institution on his or her behalf, under the contract.

2. Repayment of all scholarship funds must be made within one year of the date of default unless a determination is made by NASA to cancel, suspend, or waive payment as described in Paragraph 8.4, Cancellation Suspension, or Waiver of Obligation of Service or Payment.

#### *B. Failure to Begin or Complete the Service Obligation or Meet the Terms and Conditions of Deferral*

Scholarship recipients who, for any reason, including unacceptable academic standing by the completion of their academic programs, fail to begin or complete their service obligation after completion of academic training, or fail to comply with the terms and conditions of deferment as defined in Paragraph 7.5, Deferment of Obligation, shall be in breach of the contractual agreement. When recipients breach their agreement for these reasons, the United States shall be entitled to recover damages in accordance with P.L. 108-201.

#### *C. Recovery of Damages*

If recipients breach their agreements for "Failure to Begin or Complete the Service Obligation or Meet the Terms and Conditions of Deferment," the United States will be entitled to recover damages equal to three times the scholarship award, per the following formula:

$$A=(3F)[(t-s)/t]$$

In which:

- A** is the amount the United States is entitled to recover
- F** is the sum of the amounts paid to or on behalf of the participant
- t** is the total number of months of the period of obligated service the participant is required to serve
- s** is the number of months of the period of obligated service served by the participant

The damages that the United States is entitled to recover shall be paid within one year of the date of default unless a determination is made by NASA to cancel, suspend, or waive payment as described in Paragraph 8.4, Cancellation Suspension, or Waiver of Obligation of Service or Payment.

#### *D. Interest*

Beginning 90 days after default, interest shall accrue on the payments required to be made under "Failure to Complete Academic Training" and "Failure to Begin or Complete the Service Obligation or Meet the Terms and Conditions of Deferral" at the:

1. annual rate of 150 percent of the yield on 91-day Treasury bills averaged during a calendar quarter; or
2. rate determined to be at least equivalent to the Treasury's borrowing costs, or similar to applicable rates used if the period of repayment is unknown, or extends beyond the one-year period from the date of default.

#### *E. Extension of Repayment Period*

NASA may extend the repayment period on the payments required under "Failure to Complete Academic Training" and "Failure to Begin or Complete the Service Obligation or Meet the Terms and Conditions of Deferral" for identified hardship. Interest shall continue to accrue except as otherwise provided under "Cancellation, Suspension, or Waiver of Obligation of Service or Payment."

### **8.4 Cancellation, Suspension, or Waiver of Obligation of Service or Payment**

- A. Any obligation of a participant for service or payment will be canceled upon the death of the participant.
- B. A participant may seek a partial or total waiver or suspension of the service or payment obligation incurred under this program by written request to NASA setting forth the basis, circumstances, and causes which support the requested

- action. NASA may approve an initial request for a suspension for a period of up to one year. A renewal of this suspension may also be granted.
- C. NASA may partially or totally waive or suspend any service or payment obligation incurred by a participant whenever compliance by the participant is impossible, due to:
1. circumstances beyond the control of the participant involving extreme hardship to the individual;
  2. determination by NASA that a partial or total waiver or suspension of compliance is in the best interest of the Administration.
- D. Compliance by a participant with a service or payment obligation will be considered impossible due to circumstances beyond the control of the participant if NASA determines, on the basis of such information and documentation as may be required, that the participant suffers from a physical or mental disability resulting in permanent inability to perform the service necessary to comply with the obligation.
- E. Partial or total waivers or suspensions of service or payment obligations, when not related to other paragraphs of this section, and when considered in the best interest of the Agency, will be determined by NASA on an individual basis.