

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		5. PROJECT NO. (If applicable)	
000001		See B. Oct 16C		4200408538	
6. ISSUED BY		7. ADMINISTERED BY (If other than Item 6)		CODE	
NASA/Goddard Space Flight Center Headquarters Procurement Office Greenbelt MD 20771		NASA/Goddard Space Flight Center Headquarters Procurement Office Greenbelt MD 20771		HQ	
8. NAME AND ADDRESS OF CONTRACTOR (No. one if contract, state and ZIP Code)		9A. AMENDMENT OF SOLICITATION NO.			
CENTER FOR THE ADVANCEMENT OF SCIENCE IN SPACE MS. CASIS, BLDG M6-1025, RM 308 123 KENNEDY SPACE CENTER FL 32899-0001		(X)			
CODE 6BSZ4		9B. DATED (SEE ITEM 11)			
FACILITY CODE		10A. MODIFICATION OF CONTRACT/ORDER NO.			
		DNE11CL70A			
		10B. DATED (SEE ITEM 13)			
		08/31/2011			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

- ☐ The above numbered solicitation is amended as set forth in Item 10. The time and date specified for receipt of Offers ☐ is extended ☐ is not extended.
- Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided such telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Increase: \$2,590,000.00

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACT/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO (Specify authority. THE CHANGE'S SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A)
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in agency office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b)
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority)
	4.19 MULTIPLE YEAR GRANT OR COOPERATIVE AGREEMENT (OCTOBER 2000) [1260.52]
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.	

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by GPC coding headings, including solicitations without subject matter where feasible.)

The purpose of this modification is to increase the Government's contribution for FY 11:

From: \$1,250,000 By: \$2,590,000 To: \$3,750,000.

Accordingly, 4.19 MULTIPLE YEAR GRANT OR COOPERATIVE AGREEMENT (OCTOBER 2000) [1260.52] has been modified as follows:

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
Catherine L. Becker		Amanda Heslep, Contracting Officer	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
James J. Becker	9/29/2011	Amanda Heslep	SEP 27 2011
(Signature of person authorized to sign)		(Signature of Contracting Officer)	

NSN 7540-01-152-8070
Previous edition unusable

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	NNH11CD70A/000001	2	3

NAME OF OFFEROR OR CONTRACTOR
CENTER FOR THE ADVANCEMENT OF SCIENCE IN SPACE, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
002	NPO Agreement Obligated Amount: \$2,500,000.00				2,500,000.00

Cooperative Agreement NNH11CD70A
Modification One (1)
Page 1 of 1

1) Clause 4.19 MULTIPLE YEAR GRANT OR COOPERATIVE AGREEMENT (OCTOBER 2000) [1260.52] is revised as follows:

This is a multiple year grant or cooperative agreement. Contingent on the availability of funds, scientific progress of the project, and continued relevance to NASA programs, NASA anticipates continuing support at approximately the following levels:

Fiscal year 2011 - ~~\$4,250,000~~ \$3,750,000
Fiscal year 2012 - \$15,000,000
Fiscal year 2013 - \$15,000,000
Fiscal year 2014 - \$15,000,000
Fiscal year 2015 - \$15,000,000
Fiscal year 2016 - \$15,000,000
Fiscal year 2017 - \$15,000,000
Fiscal year 2018 - \$15,000,000
Fiscal year 2019 - \$15,000,000
Fiscal year 2020 - \$15,000,000

The term of this Agreement shall commence upon the effective date indicated on the coversheet and last through the end of FY2020 unless terminated earlier in accordance with section 4.6 of this Agreement. This Agreement may be extended for an additional 5 year period by mutual consent of the parties. It is the Government's intent to assess the progress of the overall research during the 9th year of performance (i.e. FY2020). If the Government determines, based on the overall success of the Recipient, that the 5-year extension period is to be implemented, the Recipient will be required to submit a separate budget proposal for the extension period, in accordance with instructions to be provided by the NASA Grants Officer.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES	
				1 2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.	
000002				See Schedule	
6. ISSUED BY		CODE		5. PROJECT NO. (If applicable)	
NASA/Goddard Space Flight Center Headquarters Procurement Office Greenbelt MD 20771		HQ			
		7. ADMINISTERED BY (If other than Item 6)		CODE	
		NASA/Goddard Space Flight Center Headquarters Procurement Office Greenbelt MD 20771		HQ	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)		9A. AMENDMENT OF SOLICITATION NO.			
CENTER FOR THE ADVANCEMENT OF SCIENCE IN SPACE, MS.CASIS, BLDG M6-1025, RM 308-123 KENNEDY SPACE CENTER FL 32899-0001		(x)			
		9B. DATED (SEE ITEM 11)			
		x			
		10A. MODIFICATION OF CONTRACT/ORDER NO.			
		NNH11CD70A			
		10B. DATED (SEE ITEM 13)			
		08/31/2011			
CODE		FACILITY CODE			
6BSZ4					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. ACCOUNTING AND APPROPRIATION DATA (If required)					
Net Increase: \$3,000,000.00 10BI000/6100.2520/10/FC000000/904211.01.03.01/000/2520/10/EXCX22012D/733B/1/2					
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.					
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.				
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).				
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:				
X	D. OTHER (Specify type of modification and authority) 4.19 MULTIPLE YEAR GRANT OR COOPERATIVE AGREEMENT (OCTOBER 2000) [1260.52]				
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)					

The purpose of this modification is to provide funding for the Government's contribution for FY 12. The total funding and value of this Cooperative Agreement are revised as follows:

From: \$3,750,000 By: \$3,000,000 To: \$6,750,000.

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
		Sandra P. Bruce	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
(Signature of person authorized to sign)		(Signature of Contracting Officer)	

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED NNH11CD70A/000002	PAGE	OF
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NAME OF OFFEROR OR CONTRACTOR
CENTER FOR THE ADVANCEMENT OF SCIENCE IN SPACE, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	Cost Center: 10BI000 GI Account: 6100.2520 Order: FC000000 WBS Element1: 904211.01.03.01 Item Number: 000 Commitment Item: 2520 Funds Center: 10 Fund: EXCX22012D Functional Area: 733B				
003	NPO Agreement Obligated Amount: \$2,000,000.00 Requisition No: 4200412181				2,000,000.00
004	NPO Agreement Obligated Amount: \$1,000,000.00 Requisition No: 4200417036				1,000,000.00

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 000004		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. See Schedule	
5. PROJECT NO. (if applicable)		6. ISSUED BY NASA/Goddard Space Flight Center Headquarters Procurement Office Greenbelt MD 20771		7. ADMINISTERED BY (if other than Item 6) NASA/Goddard Space Flight Center Headquarters Procurement Office Greenbelt MD 20771	
8. NAME AND ADDRESS OF CONTRACTOR (No. street, county, State and ZIP Code) CENTER FOR THE ADVANCEMENT OF SCIENCE IN SPACE MS.CASIS, BLDG M6-1025, RM 308-123 KENNEDY SPACE CENTER FL 32899-0001		(x) 9A. AMENDMENT OF SOLICITATION NO.		9B. DATED (SEE ITEM 11)	
CODE 6BS24 FACILITY CODE		10A. MODIFICATION OF CONTRACT/ORDER NO. NNH11CD70A		10B. DATED (SEE ITEM 13) 08/31/2011	
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<p>The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended.</p> <p>Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment, (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.</p>					
12. ACCOUNTING AND APPROPRIATION DATA (if required) See Schedule					
Net Increase: \$5,200,000.00					
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.					
CHECK ONE					
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A					
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
D. OTHER (Specify type of modification and authority)					
X 4.19 MULTIPLE YEAR GRANT OR COOPERATIVE AGREEMENT (OCTOBER 2000) [1260.52]					
E. IMPORTANT: Contractor is not, is required to sign this document and return 0 copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)					

The purpose of this modification is to provide funding for the Government's contribution for FY 12. The total funding and value of this Cooperative Agreement are revised as follows:

From: \$9,750,000 By: \$5,200,000 To: \$14,950,000.

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)

15B. CONTRACTOR/OFFEROR

15C. DATE SIGNED

16B. UNITED STATES OF AMERICA

16C. DATE SIGNED

(Signature of person authorized to sign)

(Signature of Contracting Officer)

NSN 7540-01-152-8070
Previous edition unusable

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED NNH11CD70A/000004	PAGE OF 2 2
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NAME OF OFFEROR OR CONTRACTOR

CENTER FOR THE ADVANCEMENT OF SCIENCE IN SPACE, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
006	NPO Coop Agreement w/ CASIS NNH11CD70A Obligated Amount: \$3,000,000.00 Requisition No: 4200428224 Accounting Info: 10CJ000/6100.2550/10/FC000000/904211.01.03.01/000/ 2550/10/EXCX22012D/733B/1/2 Cost Center: 10CJ000 GI Account: 6100.2550 Order: FC000000 WBS Element1: 904211.01.03.01 Item Number: 000 Commitment Item: 2550 Funds Center: 10 Fund: EXCX22012D Functional Area: 733B Funded: \$3,000,000.00				3,000,000.00
007	NPO Cooperative Agreement-NNH11CD70A Obligated Amount: \$2,200,000.00 Requisition No: 4200431568 Accounting Info: 10BI000/6100.2550/10/FC000000/904211.01.03.01/000/ 2550/10/EXCX22011D/733B/1/2 Cost Center: 10BI000 GI Account: 6100.2550 Order: FC000000 WBS Element1: 904211.01.03.01 Item Number: 000 Commitment Item: 2550 Funds Center: 10 Fund: EXCX22011D Functional Area: 733B Funded: \$2,200,000.00				2,200,000.00

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES	
				1 4	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.	
000005		See Block 16C		4200441334	
5. ISSUED BY		6. PROJECT NO. (If applicable)			
NASA/Goddard Space Flight Center Headquarters Procurement Office Greenbelt MD 20771		HQ			
7. ADMINISTERED BY (If other than Item 6)		CODE		HQ	
NASA/Goddard Space Flight Center Headquarters Procurement Office Greenbelt MD 20771					
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)		9A. AMENDMENT OF SOLICITATION NO.			
CENTER FOR THE ADVANCEMENT OF SCIENCE IN SPACE, MS.CASIS, BLDG M6-1025, RM 308-123 KENNEDY SPACE CENTER FL 32899-0001		(x)			
				9B. DATED (SEE ITEM 11)	
CODE		10A. MODIFICATION OF CONTRACT/ORDER NO.			
6BSZ4		NNH11CD70A			
FACILITY CODE		10B. DATED (SEE ITEM 13)			
		08/31/2011			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15 and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
<input type="checkbox"/> is extended, <input type="checkbox"/> is not extended.					
12. ACCOUNTING AND APPROPRIATION DATA (If required)					
10BI000/6100.2550/10/FC000000/904211.01.03.01/000/2550/10/EXCX22012D/733B/1/2					
Net Increase: \$6,000,000.00					
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.					
CHECK ONE					
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
D. OTHER (Specify type of modification and authority)					
X 4.19 MULTIPLE YEAR GRANT OR COOPERATIVE AGREEMENT (OCTOBER 2000) [1260.52]					
E. (IMPORTANT): Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)					

The purpose of this modification is to fully fund the Government's contribution for FY 12 (\$3,800,000) and provide funding for the Government's contribution for FY 13 (\$2,200,000). The total funding and value of this Cooperative Agreement are revised as follows:

From: \$14,950,000 By: \$6,000,000 To: \$20,950,000.

This modification also defines the roles of the CATO and NASA Liason.

Accordingly, see the following pages.

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
		Amanda Heslop	
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED	
15D. UNITED STATES OF AMERICA		15E. DATE SIGNED	
Amanda Heslop		AUG 14 2012	
(Signature of person authorized to sign)		(Signature of Contracting Officer)	

NSN 7540-01-162-8070
Previous edition unusable

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
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NAME OF OFFEROR OR CONTRACTOR

CENTER FOR THE ADVANCEMENT OF SCIENCE IN SPACE, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
008	Cost Center: 10BI000 GI Account: 6100.2550 Order: FC000000 WBS Element1: 904211.01.03.01 Item Number: 000 Commitment Item: 2550 Funds Center: 10 Fund: EXCX22012D Functional Area: 733B NPO Cooperative Agreement-NNH11CD70A Obligated Amount: \$6,000,000.00				6,000,000.00

1. 3.1 General Definitions is replaced in its entirety as follows:

3.1 General Definitions

3.1.1 Recipient – An organization or other entity receiving a grant or cooperative agreement. For purposes of this Cooperative Agreement, the “Recipient” is the organization signing this document.

3.1.2 Party – For purposes of this Agreement, the parties to this Cooperative Agreement are NASA and the Recipient.

3.1.3 Cooperative Agreement Technical Officer (“CATO”) – The Government’s technical representative from NASA charged with the technical oversight of the Cooperative Agreement, including coordination of approval of the Annual Program Plan and tracking of performance to that plan via the quarterly reports. The current CATO is Michael Read.

3.1.4 NASA Liaison – The Government’s officially designated liaison as defined in accordance with Section 504(b) of the 2010 NASA Authorization Act. CASIS shall carry out its responsibilities in cooperation and consultation with this liaison. The current NASA Liason is Bradley Carpenter.

3.1.5 Agreement Administrator – The Government’s principal point of contact for all administrative, financial or other non-technical issues arising under the Agreement. Unless stated otherwise, the Agreement Administrator is the cognizant Grants Officer, currently Amanda Heslep.

3.1.5 Amendment – Any document used to effect modification to this agreement.

2. 3.2.1 Planning Process is replaced in its entirety as follows:

3.2.1 Planning Process

CASIS will prepare an Annual Program Plan (APP). The APP will provide a detailed plan of CASIS’ proposed activities for the following year and shall require CASIS to use its best efforts to meet the objectives of this Cooperative Agreement. The parties will not be required to modify the Cooperative Agreement in the event the APP changes requirements in the Cooperative Agreement and/or the referenced proposal and clarification response. During the course of performance, if it appears that performance metrics will not be met, CASIS will provide a proposed adjustment in accordance with Article 3.3 Agreement Administration.

NASA will conduct an annual program review that shall be held to evaluate performance against the current APP and review the proposed APP for the next year. The Grants Officer, in conjunction with the CATO, will approve the next year’s budget based on review of the APP. CASIS will prepare the APP in cooperation and consultation with the NASA CATO, and the APP will be included in this agreement only

through formal amendments to this agreement. The annual budget shall be submitted in accordance with the requirements specified in Attachment 1.

3. 3.4.5 Cooperative Agreement Technical Officer is replaced in its entirety as follows:

3.4.5 Cooperative Agreement Technical Officer

Attn: ISS NL CATO, Michael Read
 ISS Program Office
 NASA Johnson Space Center
 Mail Code OZ1
 2101 NASA Parkway
 Houston, TX 77058

4. 4.20 INCREMENTAL FUNDING (OCTOBER 2000) [1260.53] is updated as follows:

4.20 INCREMENTAL FUNDING (OCTOBER 2000) [1260.53]

(a) Only \$20,950,000 of the amount indicated on the face of this award is available for payment and allotted to this award. NASA contemplates making additional allotments of funding during performance of this effort. It is anticipated that these funds will be obligated as appropriated funds become available without any action required by the Recipient. The Recipient will be given written notification by the NASA Grants Officer.

Funding is allocated as follows:

FY 11 - \$3,750,000
 FY 12 - \$15,000,000
 FY 13 - \$2,200,000

(b) The Recipient agrees to perform work up to the point at which the total amount paid or payable by the Government approximates but does not exceed the total amount actually allotted to this grant or cooperative agreement. NASA is not obligated to reimburse the Recipient for the expenditure of amounts in excess of the total funds allotted by NASA to this grant or cooperative agreement. The Recipient is not authorized to continue performance beyond the amount allotted to this award.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.	
000007		See Block 16C		42004658R6	
5. ISSUED BY		6. PROJECT NO. (# appl cable)		7. ADMINISTERED BY (If other than Item 5)	
CODE HQ		CODE HQ		CODE HQ	
NASA/Goddard Space Flight Center Headquarters Procurement Office Greenbelt MD 20771		NASA/Goddard Space Flight Center Headquarters Procurement Office Greenbelt MD 20771			
8. NAME AND ADDRESS OF CONTRACTOR (file street, county, State and ZIP Code)		9A. AMENDMENT OF SOLICITATION NO.		9B. DATED (SEE ITEM 11)	
CENTER FOR THE ADVANCEMENT OF SCIENCE IN SPACE, MS.CASIS, BLDG M6-1025, RM 308-123 KENNEDY SPACE CENTER FL 32899-0001		9A. AMENDMENT OF SOLICITATION NO.		9B. DATED (SEE ITEM 11)	
CODE 6BSZ4		FACILITY CODE		10A. MODIFICATION OF CONTRACT/ORDER NO.	
				X NNH11CD70A	
				10B. DATED (SEE ITEM 11)	
				08/31/2011	
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<p>The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended is not extended.</p> <p>Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 10, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter make reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.</p>					
12. ACCOUNTING AND APPROPRIATION DATA (if required)					
10BI000/6100.2550/16/FC000000/904211 01.03.01/000/2550/10/EXCX22013D/733B/1/2 Net Increase: \$7,500,000.00					
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14					
CHECK ONE					
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A					
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
D. OTHER (Specify type of modification and authority)					
X Mutual Agreement of the Parties					
E. IMPORTANT: Contractor is not. 1. is required to sign this document and return _____ 1 _____ copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)					
The purpose of this modification is to provide funding for the Government's contribution for FY 13 (\$7,500,000). The total funding and value of this Cooperative Agreement are revised as follows:					
From: \$20,950,000 By: \$7,500,000 To: \$28,450,000					
This modification also adds property provisions 1260.66, 1260.133 and 1260.134, Access To Sensitive Information (June 2005), and Release of Sensitive Information (June 2005).					
Accordingly, see the following pages.					
Continued ...					
Except as provided herein, all terms and conditions of the document referenced in Item 8A or 10A are heretofore changed, remains unchanged and in full force and effect.					
15A. NAME AND TITLE OF SIGNER (Type or print)		15B. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
Jaime Fernandez, CFO		Amanda J. Heslep			
16B. CONTRACT/OFFEROR		16C. DATE SIGNED		16D. UNITED STATES OF AMERICA	
Signature of person authorized to sign		2/25/13		Signature of Contracting Officer	
NSN 7540-01-152-6070 Previous edition unusable				FEB 28 2013	
				STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243	

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
NNH11CD70A/000007PAGE OF
2 10

NAME OF OFFEROR OR CONTRACTOR

CENTER FOR THE ADVANCEMENT OF SCIENCE IN SPACE, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
009	Cost Center: 10B1000 GL Account: 6100.2550 Order: PC000000 WBS Element1: 904211.01.03.01 Item Number: 000 Commitment Item: 2550 Funds Center: 10 Fund: EXCX22013D Functional Area: 733B NPO Cooperative Agreement-NNH11CD70A Obligated Amount: \$7,500,000.00				7,500,000.00

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES	
				1 1	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.	
000008		See Block 16C			
5. ISSUED BY		CODE		7. ADMINISTERED BY (If other than item 6)	
NASA/Goddard Space Flight Center Headquarters Procurement Office Greenbelt MD 20771		HQ		CODE HQ	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)		9A. AMENDMENT OF SOLICITATION NO.		9B. DATED (SEE ITEM 11)	
CENTER FOR THE ADVANCEMENT OF SCIENCE IN SPACE, MS.CASIS, BLDG M6-1025, RM 308-123- KENNEDY SPACE CENTER FL 32899-0001		(x)			
CODE 6BSZ4		FACILITY CODE		10A. MODIFICATION OF CONTRACT/ORDER NO.	
				NNH11CD70A	
				10B. DATED (SEE ITEM 13)	
				08/31/2011	
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. ACCOUNTING AND APPROPRIATION DATA (If required)					
See Schedule					
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.					
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.				
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).				
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:				
X	D. OTHER (Specify type of modification and authority) Mutual Agreement of the Parties				
E. IMPORTANT: Contractor <input type="checkbox"/> is not. <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)					

The purpose of this modification is to change the Principle Investigator to Col. Gregory H. Johnson, Phone: 321-403-4156.

Except as provided herein, all terms and conditions of the document referenced in item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
Jorge Fernandez CFO		Amanda Heslep	
15B. CONTRACTOR OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
(Signature of person authorized to sign)	8/26/13	Amanda Heslep	SEP 12 2013
		(Signature of Contracting Officer)	

NSN 7540-01-152-8000
Previous edition unusable

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 3	
2. AMENDMENT/MODIFICATION NO. 000009		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. 4200490229	
5. PROJECT NO. (If applicable)		6. ISSUED BY NASA/Goddard Space Flight Center Headquarters Procurement Office Greenbelt MD 20771		7. ADMINISTERED BY (If other than item 6) NASA/Goddard Space Flight Center Headquarters Procurement Office Greenbelt MD 20771	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) CENTER FOR THE ADVANCEMENT OF SCIENCE IN SPACE, MS.CASIS, BLDG M6-1025, RM 308-123 KENNEDY SPACE CENTER FL 32899-0001		9A. AMENDMENT OF SOLICITATION NO. (x)		9B. DATED (SEE ITEM 11)	
CODE 6BSZ4 FACILITY CODE		10A. MODIFICATION OF CONTRACT/ORDER NO. NNH11CD70A		10B. DATED (SEE ITEM 13) 08/31/2011	
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and retaining _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule					
Net Increase: \$7,500,000.00					
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.					
CHECK ONE					
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
D. OTHER (Specify type of modification and authority)					
X 4.19 MULTIPLE YEAR GRANT OR COOPERATIVE AGREEMENT (OCTOBER 2000) [1260.52]					
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ 0 copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)					

The purpose of this modification is to fully fund the Government's contribution for FY 13 (\$5,300,000) and provide funding for the Government's contribution for FY 14 (\$2,200,000). The total funding and value of this Cooperative Agreement are revised as follows:

From: \$28,450,000 By: \$7,500,000 To: \$35,950,000

Accordingly, see the following page:

Continued ...

Except as provided herein, all terms and conditions of the document referenced in item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Amanda Heslop	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA (Signature of Contracting Officer)	16C. DATE SIGNED SEP 12 2013
NSN 7540-01-152-8070 Previous edition unusable		STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243	

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED NNH11CD70A/000009	PAGE 2	OF 3
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NAME OF OFFEROR OR CONTRACTOR

CENTER FOR THE ADVANCEMENT OF SCIENCE IN SPACE, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
010	Accounting Info: 10CR000/6100.2550/10/FC000000/904211.01.03.01/000/ 2550/10/EXCX22013D/733B/8013/140115/1/2 Cost Center: 10CR000 GL Account: 6100.2550 Order: FC000000 WBS Element1: 904211.01.03.01 Item Number: 000 Commitment Item: 2550 Funds Center: 10 Fund: EXCX22013D Functional Area: 733B Appropriation: 8013/140115 CASIS Funding Obligated Amount: \$7,500,000.00				7,500,000.00

1. 4.20 INCREMENTAL FUNDING (OCTOBER 2000) [1260.53] is updated as follows:

4.20 INCREMENTAL FUNDING (OCTOBER 2000) [1260.53]

(a) Only \$35,950,000 of the amount indicated on the face of this award is available for payment and allotted to this award. NASA contemplates making additional allotments of funding during performance of this effort. It is anticipated that these funds will be obligated as appropriated funds become available without any action required by the Recipient. The Recipient will be given written notification by the NASA Grants Officer.

Funding is allocated as follows:

FY 11 - \$3,750,000

FY 12 - \$15,000,000

FY 13 - \$15,000,000

FY 14 - \$2,200,000

(b) The Recipient agrees to perform work up to the point at which the total amount paid or payable by the Government approximates but does not exceed the total amount actually allotted to this grant or cooperative agreement. NASA is not obligated to reimburse the Recipient for the expenditure of amounts in excess of the total funds allotted by NASA to this grant or cooperative agreement. The Recipient is not authorized to continue performance beyond the amount allotted to this award.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES	
				1 3	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.	
000010		See Block 16C		4200507164	
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than item 6)	
NASA/Goddard Space Flight Center Headquarters Procurement Office Greenbelt MD 20771		HQ		CODE HQ NASA/Goddard Space Flight Center Headquarters Procurement Office Greenbelt MD 20771	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				9A. AMENDMENT OF SOLICITATION NO.	
CENTER FOR THE ADVANCEMENT OF SCIENCE IN SPACE, INC. MS.CASIS, BLDG M8-1025, RM 308-123 KENNEDY SPACE CENTER FL 32899-0001				(X)	
				9B. DATED (SEE ITEM 11)	
				X	
				10A. MODIFICATION OF CONTRACT/ORDER NO.	
				NNH11CD70A	
				10B. DATED (SEE ITEM 13)	
				08/31/2011	
CODE		FACILITY CODE			
6BSZ4					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. ACCOUNTING AND APPROPRIATION DATA (If required)					
See Schedule					
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.					
CHECK ONE					
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
D. OTHER (Specify type of modification and authority)					
X 4.19 MULTIPLE YEAR GRANT OR COOPERATIVE AGREEMENT (OCTOBER 2000) [1260.52]					
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)					

The purpose of this modification is to provide funding for the Government's contribution for FY 14 in the amount of \$7,500,000. The total funding and value of this Cooperative Agreement are revised as follows:

From: \$35,950,000 By: \$7,500,000 To: \$43,450,000

Accordingly, see the following page:

Continued ...

Except as provided herein, all terms and conditions of the document referenced in item 8 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
		Amanda Hestep	
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED	
15D. UNITED STATES OF AMERICA		16C. DATE SIGNED	
Amanda Hestep		APR 24 2014	
(Signature of person authorized to sign)		(Signature of Contracting Officer)	

NSN 7540-01-152-8070
Previous edition unusable

STANDARD FORM 30 (REV. 10-83)
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FAR (48 CFR) 53.243

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED NNH11CD70A/000010	PAGE	OF
		2	3

NAME OF OFFEROR OR CONTRACTOR
CENTER FOR THE ADVANCEMENT OF SCIENCE IN SPACE, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
011	<p>Accounting Info: 10CR000/6100.2550/10/FC000000/904211.01.03.01/000/ 2550/10/EXCX22014D/733B/8014/150115/1/2 Cost Center: 10CR000 GL Account: 6100.2550 Order: FC000000 WBS Element1: 904211.01.03.01 Item Number: 000 Commitment Item: 2550 Funds Center: 10 Fund: EXCX22014D Functional Area: 733B Appropriation: 8014/150115</p> <p>CASIS Obligated Amount: \$7,500,000.00</p>				7,500,000.00

1. 4.20 INCREMENTAL FUNDING (OCTOBER 2000) [1260.53] is updated as follows:

4.20 INCREMENTAL FUNDING (OCTOBER 2000) [1260.53]

(a) Only **\$43,450,000** of the amount indicated on the face of this award is available for payment and allotted to this award. NASA contemplates making additional allotments of funding during performance of this effort. It is anticipated that these funds will be obligated as appropriated funds become available without any action required by the Recipient. The Recipient will be given written notification by the NASA Grants Officer.

Funding is allocated as follows:

FY 11 - **\$3,750,000**

FY 12 - **\$15,000,000**

FY 13 - **\$15,000,000**

FY 14 - **\$9,700,000**

(b) The Recipient agrees to perform work up to the point at which the total amount paid or payable by the Government approximates but does not exceed the total amount actually allotted to this grant or cooperative agreement. NASA is not obligated to reimburse the Recipient for the expenditure of amounts in excess of the total funds allotted by NASA to this grant or cooperative agreement. The Recipient is not authorized to continue performance beyond the amount allotted to this award.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 3	
2. AMENDMENT/MODIFICATION NO. 000011		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. 4200520523	
6. ISSUED BY NASA/Goddard Space Flight Center Headquarters Procurement Office Greenbelt MD 20771		CODE HQ		7. ADMINISTERED BY (If other than Item 6) NASA/Goddard Space Flight Center Headquarters Procurement Office Greenbelt MD 20771	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) CENTER FOR THE ADVANCEMENT OF SCIENCE IN SPACE, INC. MS.CASIS, BLDG M8-1025, RM 308-123 KENNEDY SPACE CENTER FL 32899-0001		(X)		9A. AMENDMENT OF SOLICITATION NO.	
CODE 6BSZ4		FACILITY CODE		9B. DATED (SEE ITEM 11)	
				10A. MODIFICATION OF CONTRACT/ORDER NO. NNH11CD70A	
				10B. DATED (SEE ITEM 13) 08/31/2011	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Increase: \$7,500,000.00
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) 4.19 MULTIPLE YEAR GRANT OR COOPERATIVE AGREEMENT (OCTOBER 2000) [1260.52]
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not <input type="checkbox"/> is required to sign this document and return _____ 0 _____ copies to the issuing office.	

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to provide funding for the Government's contribution for FY 14 in the amount of \$5,300,000 and FY 15 in the amount of \$2,200,000. The total funding and value of this Cooperative Agreement are revised as follows:

From: \$43,450,000 By: \$7,500,000 To: \$50,950,000

Accordingly, see the following page:

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Amanda Heslop		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Amanda Heslop	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA (Signature of Contracting Officer)	16C. DATE SIGNED SEP - 3 2014
NSN 7540-01-152-8070 Previous edition unusable			
STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243			

CONTINUATION SHEET		REFERENCE NO. OF DOCUMENT BEING CONTINUED NNH11CD70A/000011		PAGE 2	OF 3
NAME OF OFFEROR OR CONTRACTOR CENTER FOR THE ADVANCEMENT OF SCIENCE IN SPACE, INC.					
ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
012	Accounting Info: 10CR000/6100.2550/10/FC000000/904211.01.03.01/000/ 2550/10/EXCX22014D/733B/8014/150115/1/2 Cost Center: 10CR000 GL Account: 6100.2550 Order: FC000000 WBS Element1: 904211.01.03.01 Item Number: 000 Commitment Item: 2550 Funds Center: 10 Fund: EXCX22014D Functional Area: 733B Appropriation: 8014/150115 CASIS Obligated Amount: \$7,500,000.00				7,500,000.00

1. 4.20 INCREMENTAL FUNDING (OCTOBER 2000) [1260.53] is updated as follows:

4.20 INCREMENTAL FUNDING (OCTOBER 2000) [1260.53]

(a) Only **\$50,950,000** of the amount indicated on the face of this award is available for payment and allotted to this award. NASA contemplates making additional allotments of funding during performance of this effort. It is anticipated that these funds will be obligated as appropriated funds become available without any action required by the Recipient. The Recipient will be given written notification by the NASA Grants Officer.

Funding is allocated as follows:

FY 11 - \$3,750,000

FY 12 - \$15,000,000

FY 13 - \$15,000,000

FY 14 - **\$15,000,000**

FY 15 - **\$2,200,000**



(b) The Recipient agrees to perform work up to the point at which the total amount paid or payable by the Government approximates but does not exceed the total amount actually allotted to this grant or cooperative agreement. NASA is not obligated to reimburse the Recipient for the expenditure of amounts in excess of the total funds allotted by NASA to this grant or cooperative agreement. The Recipient is not authorized to continue performance beyond the amount allotted to this award.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 55	
2. AMENDMENT/MODIFICATION NO. 000012		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
6. ISSUED BY NASA/Goddard Space Flight Center Headquarters Procurement Office Greenbelt MD 20771		CODE HQ		5. PROJECT NO. (if applicable)	
		7. ADMINISTERED BY (if other than Item 6) NASA/Goddard Space Flight Center Headquarters Procurement Office Greenbelt MD 20771		CODE HQ	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) CENTER FOR THE ADVANCEMENT OF SCIENCE IN SPACE, INC. MS.CASIS, BLDG M6-1025, RM 308-123 KENNEDY SPACE CENTER FL 32899-0001		(x)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. NNH11CD70A	
				10B. DATED (SEE ITEM 13) 08/31/2011	
CODE 6BSZ4		FACILITY CODE			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. ACCOUNTING AND APPROPRIATION DATA (if required) See Schedule					
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.					
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.				
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).				
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:				
X	D. OTHER (Specify type of modification and authority) Mutual Agreement of the Parties				
E. IMPORTANT: Contractor <input type="checkbox"/> is not. <input checked="" type="checkbox"/> is required to sign this document and return _____ 1 _____ copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)					

The purpose of this modification is to update the terms and conditions of the cooperative agreement by mutual agreement of the parties. The cooperative agreement is hereby revised and replaced in its entirety.

Accordingly, see the following pages.

Except as provided herein, all terms and conditions of the document referenced in item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Jorge Fernandez, CFO		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Amanda Heslop	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED 1.27.15	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED JAN 27 2015

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CASIS COOPERATIVE AGREEMENT

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1. INTRODUCTION AND PURPOSE

1.1 Introduction

This Cooperative Agreement is awarded pursuant to Section 504 of the NASA Authorization Act of 2010 (P.L. 111-267, found at 42 U.S.C. § 18354) by NASA to the Center for the Advancement of Science in Space ("CASIS"). The parties agree that the principal purpose of this Agreement is to authorize CASIS to serve as the not-for-profit entity for management of the International Space Station ("ISS") National Laboratory ("NL"), per Section 504 of the NASA Authorization Act of 2010, to maximize the value of the investment the U.S. government has made in the ISS and demonstrate the scientific and technological productivity of the ISS over the next decade.

1.2 CASIS Purpose

1.2.1 CASIS Mission

CASIS will be responsible for maximizing the value of the ISS to the nation by developing and managing a diversified R&D portfolio based on U.S. national needs for basic and applied research and by using the ISS as a venue for Science, Technology, Engineering and Mathematics (STEM) educational activities.

1.2.2 CASIS Goals

- Stimulate, develop and manage the U.S. national uses of the ISS by other U.S. government agencies, academic institutions and private firms.
- Develop tools and techniques to communicate the value of uses of the ISS National Laboratory ("ISS NL") and increase the return on the U.S. investment in the ISS.

1.2.3 CASIS Strategies and Objectives

- Identify the unique capabilities of the ISS that provide breakthrough opportunities for non-NASA uses in science and applications, technology development, and STEM education, including but not limited to human health, biological sciences, biotechnology, biological research, energy and biofuels, physical and materials science and development, engineering research and technology development, and Earth and space imaging and observations.
- Identify and prioritize the most promising research pathways, while ensuring diversity, without over-committing the resources of the ISS.
- Increase the customer base and facilitate the matching of research pathways with qualified funding sources.
- Formulate a comprehensive portfolio of activities to maximize the value of the ISS as an educational venue for STEM education activities.
- Track the research portfolio and projects to understand and communicate the net value created.

1.2.4 Prohibition on Other Activities

CASIS shall engage exclusively in activities relating to the management of the ISS NL and activities that promote its long term research and development mission as required by Section 504 of the NASA Authorization Act of 2010, without any other organizational objectives or responsibilities on behalf of CASIS or any parent organization or other entity.

2. RESPONSIBILITIES OF THE PARTIES

Consistent with 31 U.S.C. 6301 – 6308, the parties recognize CASIS will use its best efforts to meet the objectives of this Cooperative Agreement to maximize the value of the investment the U.S. Government has made in the ISS.

2.1 CASIS Responsibilities

As part of maximizing the value of the ISS NL, CASIS will:

2.1.1 Stimulate Interest and Use of the ISS National Laboratory

CASIS will stimulate interest in and use of the ISS NL as a platform for basic and applied research for other U.S. government agencies, academic institutions, and private firms. CASIS will advocate the advantages of doing science and technology demonstrations on the ISS by developing messages that clearly communicate the unique advantages of doing research and technology development in space. Advocacy will advance increased activity for scientific research, technology demonstration, and STEM education.

CASIS will coordinate with the ISS National Laboratory Advisory Committee ("INLAC") as established under section 602 of the NASA Authorization Act of 2008 (42 U.S.C. 17752) and review recommendations provided by the INLAC. CASIS will also consider recommendations of the National Academies Decadal Survey on Biological and Physical Sciences in Space in developing research plans. CASIS will ensure scientists and engineers share knowledge within and across technical areas to make the best use of the limited flight opportunities. Additionally, CASIS will develop products that can be used to communicate the impacts of the work performed on ISS to all stakeholders ranging from technical researchers, the American public, and political stakeholders. Finally, CASIS will serve as a representative for the NL users, working with NASA to ensure the NL users and their priorities are represented and taken into account in all ISS payload processes.

The CASIS Board and staff will engage in a deliberate, targeted advocacy campaign to stimulate interest in using ISS NL for the conduct of research, technology demonstrations, and as a platform for STEM education.

The marketing and advocacy of the ISS NL will be accomplished through: (a) the development of tailored messages that can be integrated into various communication products, and (b) the establishment of communication channels through CASIS staff, and the Board of Directors. Tailored messages will be developed for each constituency group to share the benefits and unique advantages of using ISS NL for scientific research, technology demonstrations and STEM education; these groups will include ISS NL users, the White House and Congress, NASA, media, K-12 educators and students, funding sources, and the general public. ISS NL users include researchers from the government, academic institutions, and private firms. Each user type will be informed of the technical aspects of research discoveries and developments

made, opportunities to collaborate with peers, and funding opportunities to initiate new lines of investigation or to further existing research efforts. These efforts will support CASIS in ensuring that knowledge is shared across all relevant technical and scientific disciplines. Marketing products will be developed that communicate the impact of work performed on ISS to all stakeholder groups. CASIS will work with its Board of Directors and INLAC to gather input on its strategies for increasing utilization of ISS.

CASIS will develop and implement methods of engaging interested parties to join the CASIS community. Additionally, CASIS will combine its network of stakeholders with marketing and communications capabilities to create a powerful message and multi-media presence to reach a broad and diverse group of national audiences.

CASIS will solicit individuals and entities to become stakeholders in the CASIS community, including investigators, funding sources, implementation partners, research institutions, universities, K-12 schools, for profit corporations, and other parties with an interest in the ISS NL. CASIS shall seek to bring together its stakeholders into an informal forum (referred to herein as the "ISS NL Marketplace,") that scientists, investigators, financiers, implementation partners and others can use in finding funding, projects of interest, and partners, with facilitation from CASIS.

2.1.2 Develop the ISS National Laboratory

CASIS will determine the research objectives that provide the most value to the nation across the breadth of research disciplines and across the range of basic to applied research. The research objectives should meet the needs of other government agencies, educational and commercial entities and enhance the non-exploration related research uses of the ISS. CASIS will use these objectives to develop the appropriate partnerships with other U.S. government agencies, academic institutions, and private firms. CASIS will develop agreements for use of the ISS for researchers (principal investigators), companies that perform space flight unique integration work (implementation partners) and funding sponsors. In developing partnerships, CASIS will take into account appropriate research and technology development objectives, capabilities of the parties to perform the work required to select and execute research on the ISS, and the ability to provide financial sponsorship. CASIS will identify funding opportunities from appropriate sources and facilitate matching of projects that meet the research objectives with those qualified funding sources. CASIS will seek to award research grants for its portfolio consistent with available NASA funding, but not less than \$3 million per year starting in FY2013 based on the current \$15 million per year projected NASA funding. Projects will include the spectrum of scientific research from basic to applied, technology demonstration, and STEM education. CASIS will take into account organizational conflicts of interest ("OCI") in developing agreements and will maintain a detailed and effective plan to avoid, neutralize and mitigate OCI.

CASIS will develop research pathways, and engage the expertise of a science and technology advisory group, referred to herein as the "Science and Technology Advisory Panel," from academia, industry, and government. (The name of this group may be changed as appropriate by CASIS.) The expertise of the Science and Technology Advisory Panel will guide the formulation of research pathways to maximize utilization of the ISS NL and meet the mission objectives of the users. CASIS will develop research pathways that connect basic research, applied research, and resulting mission and market applications.

This approach will produce value by clarifying which pathways are more promising and facilitating a shorter cycle for translation of developing science and technology applications to practical use. CASIS will select members of the Science and Technology Advisory Panel with the aim that those members will possess the technical expertise and knowledge for ranking of the meritorious projects of high caliber science. Some of the key elements to be addressed in the establishment of the ISS NL research pathways are to: (a) develop a compilation of research categories, (b) collect evidence surrounding major research categories to gauge potential value and feasibility for pursuing specific lines of investigation in the ISS environment, (c) vet the application opportunities for each category of research and (d) map out the pathway from theoretical to basic to applied research required for pursuing the development process for each identified research category.

CASIS will identify and solicit funding from a wide array of public and private sources by tailoring the value propositions for each funding source to the benefits of conducting research, technology, and STEM projects in the ISS NL. The funding model will be informed by the research pathways to target funding sources for theoretical, basic, and applied research projects. The objectives set by the Board of Directors may also be used to inform requirements for funding support. Research pathways, which serve as the basis for ISS NL research objectives, will identify the categories of projects and funding sources in order to develop appropriate partnerships. CASIS will target the appropriate sources of funding needed to achieve its objectives, including government grants, foundation funding, charitable contributions, private equity, venture financing, and private investors.

Establishment of an informal ISS NL Marketplace will enable interested parties to interact and learn about projects or funding opportunities under the protection of membership agreements that establish guidelines for communication and for preventing conflicts of interest. CASIS may: (a) establish guidelines, if necessary, for using the ISS NL Marketplace including conflicts of interest procedures that are agreed upon up front, (b) develop ISS NL user profiles to facilitate the development of partnerships and (c) monitor the Marketplace to identify and facilitate potential partnerships. CASIS may ask stakeholders to provide verification of member professional credibility and capability of supporting ISS research, either in the conduct of research or the provision of funding support. Information concerning the Marketplace will, to the extent available, be posted on the CASIS website and a Marketplace database for ISS NL users may be maintained to outline the research and technology objectives of each party. In addition, CASIS staff will monitor the Marketplace and support the facilitation of matching projects with appropriate funding sources. Finally, CASIS will report regularly to NASA on the findings of their Marketplace and research pathway development, so as to communicate pathways that have the highest market interest.

2.1.3 Manage the ISS National Laboratory

CASIS will manage the NL research and education portfolio. Management includes planning and coordination of the NL research activities both for ground and on-orbit execution, participation in the NASA research process according to the NASA/NL interfaces as described in the Cooperative Agreement Notice section 3, and prioritization of research objectives. CASIS will prioritize the entire NL research portfolio of technology demonstrations, basic, and applied research using a fair, transparent, and impartial selection process that maximizes value of the ISS investment made by the Nation. The process will be capable of balancing the diverse portfolio of research disciplines in varying stages along the research spectrum, and assure all selections are free of conflicts of interest.

The Science and Technology Advisory Panel will provide guidance for the development of research pathways, from which high caliber science and technology objectives will be established. CASIS will conduct scientific and economic evaluations to select and prioritize ISS NL projects and will also work with NASA to leverage existing supply chain resources.

The CASIS portfolio approach is driven by the desire to maximize the value of the ISS as a research laboratory to the nation. The evaluation approach can accommodate multiple high-priority projects, whether focused on science, technology, STEM, or facility-enhancing hardware or software. The factors for evaluation will be transparent and available to prospective users prior to the submission of proposals. These factors will be posted publicly on the CASIS website and documented in the Annual Program Plan. Establishment of the portfolio will set the research and technology disciplines and stage of research or development that will enable CASIS to achieve its research objectives.

Leveraging existing "supply chain" resources such as implementation partners affords CASIS the benefit of not having to house all requisite skills or capabilities within its organization to effectively manage the ISS NL. This approach will allow CASIS to: (a) develop relationships with implementation partners, (b) support investigators in the research planning process, and (c) participate in NASA's research process to ensure that ISS NL users are represented throughout the payload integration processes. CASIS operations staff will participate in NASA research processes to support established strategic and tactical planning processes as defined in the CAN.

Like traditional scientific peer review, an independent body of scientists and engineering professionals, the Science and Technology Advisory panel may be engaged as necessary to provide the breadth and depth of knowledge and capability for establishing research objectives that maximize research value, and to ensure transparency of process. Investigators proposing to conduct research in ISS NL will be informed of the review procedures, the science and economic evaluation parameters involved in the selection, and the processes involved in the prioritization of selected research. The key elements to establish protocols for project prioritization may include: (a) early engagement of investigators in the establishment of a project's value profile, (b) establishment of eligibility requirements for project prioritization, (c) categorization of projects in the context of their resource requirements, (d) development of a Project Selection Panel with the expertise required for the given pool of projects, (e) analysis of projects relative to the value frames to develop recommendations for final decisions on projects selected for an increment, (f) conduct of final project selection, and (g) feedback to the investigators following the selection of projects for an increment. This process is designed to ensure that a fair, transparent and impartial selection process is utilized for maximizing value to the nation. All criteria will be posted publicly including on the CASIS website and documented in the Annual Program Plan.

From the analysis of payloads that are eligible for flight, CASIS staff would select appropriate individuals from the Science and Technology Advisory Panel, other external sources, or internally to serve on a Project Selection Panel ("PSP"), taking into account potential conflicts of interest. The PSP will meet and review the eligible projects, relative to the entire ISS NL research portfolio, on the basis of the economic valuation results for considering high caliber science, technology and STEM projects. Upon making its recommendations for the increment, the PSP would make recommendations for payloads not selected. CASIS staff would summarize the feedback and provide it to affected investigators. The Executive Director, Chief Economist and Chief Scientist would review the results provided by the PSP and perform a final sign-off on the selected payloads.

2.1.4 Consultation with NASA Liaison

CASIS will carry out its responsibilities under this Cooperative Agreement in cooperation and consultation with the designated NASA Liaison.

2.2 NASA Responsibilities

NASA will cooperate with CASIS to permit the on-orbit operation of the ISS NL by conducting the following activities as mandated in the NASA Authorization Act of 2010:

- NASA will provide resources and accommodations to meet ISS NL requirements.
- NASA will designate a NASA Liaison with whom CASIS will cooperate and consult in carrying out its responsibilities.
- NASA will perform the payload physical, analytical, and operations integration during pre-flight, post-flight, transportation and on-orbit phases of the payload to ensure safe and effective flight readiness and vehicle integration. This will be coordinated with the NASA Liaison and executed by the ISS Payloads Office at Johnson Space Center.

2.3 Executive Compensation

In setting or approving base compensation and benefits, the Board of Directors shall consider the market rate for the role and skill level of the individual to perform in the role as well as the notional projections included in the proposal Space Florida submitted on behalf of CASIS. Executive bonuses shall be awarded by CASIS management or the Board of Directors based on the achievement of objectives as set forth by management or the Board. However, no bonuses paid to CASIS executives will be funded from appropriated funds, but only from Program Income as defined by Circular A-110.

2.4 Implementation of Section 504(a)(3) of the NASA Authorization Act for FY 2010

Consistent with Congressional direction that the ISS NL manager remain an independent entity committed to maximizing the value of the ISS to the nation, CASIS shall not use its position as the manager of the ISS NL to engage in activities or acquire interests likely to (1) impair its objectivity in the management of the ISS NL or (2) create or increase barriers to the full and open utilization of the ISS NL. CASIS may establish appropriate fee structures and receive payments associated with outreach and education activities conducted in support of its research and development mission. It may also solicit and receive donations from stakeholders, including individuals, foundations, and other non-profit and for-profit entities and organizations.

Impaired objectivity: As the entity responsible for managing the ISS NL, which includes the selection and prioritization of research projects and grant awards related to the ISS NL, CASIS will not take any financial interest in any ISS NL beneficiary or the results of on-orbit activities. To the extent CASIS provides services to a customer or partner beyond those services and activities contemplated or required in its role as the manager of the ISS NL, CASIS may collect reimbursement (up to its full cost including overhead or a market-based amount) for such services. These services and activities must clearly promote the research and development mission of the ISS NL. CASIS may not accept reimbursement or other financial interests as

compensation for activities related to managing the ISS NL and may not use its position as the ISS NL manager to require users to obtain reimbursable services from CASIS. CASIS may establish a uniform rate structure for common services. CASIS shall receive approval from the Government before any reimbursement is permitted under the cooperative agreement and prior to finalizing any agreement(s) to provide such services.

Increased barriers: As CASIS is required to stimulate and develop uses of the ISS NL to increase the return on the U.S. investment in the ISS, it shall avoid activities likely to impair the fullest and most effective use of the ISS NL. Such activities include, but are not limited to, any agreement or arrangement that directly benefits CASIS through: (1) fees or charges for use of or access to the ISS NL beyond appropriate reimbursement for services, or (2) a requirement that an NL user provide CASIS with an interest in future revenues or profits as a condition of access to the ISS NL.

Support for outreach and educational activities: CASIS will ensure that any fees charged to support outreach and educational activities provided by CASIS are appropriate and reasonable in light of the benefits provided. CASIS will develop programs that interest and engage different categories of stakeholders. CASIS may partner with outside entities in developing such programs and, in that event, fees may be adjusted depending on the exchange of benefits and level of collaboration between and among partners.

3. PROGRAM MANAGEMENT

3.1 General Definitions

3.1.1 Recipient – An organization or other entity receiving a grant or cooperative agreement. For purposes of this Cooperative Agreement, the “Recipient” is the organization signing this document.

3.1.2 Party – For purposes of this Agreement, the parties to this Cooperative Agreement are NASA and the Recipient.

3.1.3 Cooperative Agreement Technical Officer (“CATO”) – The Government’s technical representative from NASA charged with the oversight of the Cooperative Agreement, including coordination and approval of the Annual Program Plan and tracking of performance to that plan via the quarterly reports. The current CATO is Michael Read.

3.1.4 NASA Liaison – The Government’s officially designated liaison as defined in accordance with Section 504(b) of the 2010 NASA Authorization Act. CASIS shall carry out its responsibilities in cooperation and consultation with this liaison. The current NASA liaison is Bradley Carpenter.

3.1.5 Agreement Administrator – The Government’s principal point of contact for all administrative, financial or other non-technical issues arising under the Agreement. Unless stated otherwise, the Agreement Administrator is the cognizant Grants Officer, currently Amanda Heslep.

3.1.6 Amendment – Any document used to effect modification to this agreement.

3.2 Program Management

3.2.1 Planning Process

CASIS will prepare an Annual Program Plan (APP). The APP will provide a detailed plan of CASIS' proposed activities for the following year and shall require CASIS to use its best efforts to meet the objectives of this Cooperative Agreement. The parties will not be required to modify the Cooperative Agreement in the event the APP changes requirements in the Cooperative Agreement and/or the referenced proposal and clarification response. During the course of performance, if it appears that performance metrics will not be met, CASIS will provide a proposed adjustment in accordance with Article 3.3 Agreement Administration.

NASA will conduct an annual program review that shall be held to evaluate performance against the current APP and review the proposed APP for the next year. The Grants Officer, in conjunction with the CATO, will approve the next year's budget based on review of the APP. CASIS will prepare the APP in cooperation and consultation with the NASA CATO, and the APP will be included in this agreement only through formal amendments to this agreement. The annual budget shall be submitted in accordance with the requirements specified in Attachment 1.

3.2.2 Performance Measurement

NASA and CASIS shall collaboratively develop annual and quarterly performance metrics as part of the annual planning process and shall reflect these performance metrics in the APP. Accomplishment of performance metrics shall be reflected in annual and quarterly reports and shall be used by the CATO to monitor CASIS' use of best efforts towards meeting the objectives of this Cooperative Agreement. The metrics to be used for FY2011 and FY2012 will be collaboratively developed by CASIS and NASA as part of the first year APP. The APP for FY2013 and future years may modify the initial performance metrics through the annual APP process set forth in section 3.2.1.

3.3 Agreement Administration

3.3.1 Amendments to this Agreement

Any Party who wishes to modify this Agreement shall, upon reasonable notice of the proposed amendment to the other Party as specified sections 3.4.1 and 3.4.3, confer in good faith with the other party to determine the desirability of the proposed amendments. Amendments shall not be effective until the Parties sign a written amendment. The Grants Officer may unilaterally make minor or administrative amendments to this Agreement.

3.3.2 Requirements for Approval for Changes to the Annual Program Plan

During the course of performance, the Grants Officer, in coordination with the CATO, will have approval authority for certain specific changes to the APP, including but not limited to:

- (a) Changes to the APP if such changes alter the relationship of the parties as originally agreed upon; and
- (b) Changes to the performance metrics.

3.3.3 Requirements for Prior Approvals

CASIS shall request prior approval from the Grants Officer, in coordination with the CATO, for changes to the implementation approach of this Agreement, for one or more of the following program or budget related reasons.

- (a) A significant change in the scope or the objective of this Cooperative Agreement (even if there is no associated budget revision requiring prior written approval).
- (b) The absence for more than 3 months, or a 25 percent reduction in time devoted to the project, by the approved program manager or principal investigator.
- (c) The transfer of amounts budgeted for indirect costs to absorb increases in direct costs, or vice versa.
- (d) The inclusion of costs that require prior approval in accordance with OMB Circular A-21, "Cost Principles for Institutions of Higher Education", OMB Circular A-122, "Costs Principles for Non-Profit Organizations", 45 CFR part 74 appendix E, "Principles for Determining Costs applicable to Research and Development under Grants and Contracts with Hospitals", or 48 CFR Part 31 in the Federal Acquisition Regulation (FAR).
- (e) The transfer of funds allotted for training allowances (direct payment to trainees) to other categories of expense.
- (f) The sub award, transfer or contracting out of substantive program performance under this agreement. However, this does not apply to parties identified in the referenced proposal submitted, purchase of supplies, material, equipment or general support services unless approval is otherwise required by regulation or OMB circular.
- (g) A "no cost" extension of the project period that does not require additional Federal funds and does not change the approved objectives or scope of the project.

3.3.4 Order of Precedence

Any inconsistency shall be resolved by giving precedence in the following order:

- (a) The Annual Program Plan,
- (b) The specific terms of this Cooperative Agreement, including modifications thereto,
- (c) The CASIS clarification response submitted on June 8, 2011,(d) Section III in Volume I of the proposal CASIS submitted on April 1, 2011 in response to CAN Number: NNH11SOMD002C.

3.4 Administration and Audit Responsibility

3.4.1 The Agreement Office

NASA Goddard Space Flight Center
Amanda Heslep, Contracting Officer
Code 210.H
Building 17, Room S106
8800 Greenbelt Road
Greenbelt, MD 20771

3.4.2 The Agreements Administration Office

NASA Goddard Space Flight Center
Amanda Heslep, Contracting Officer
Code 210.H
Building 17, Room S106
8800 Greenbelt Road
Greenbelt, MD 20771

3.4.3 Initial Recipient Address and Point of Contact

Center for the Advancement of Science in Space
Jorge Fernandez, Director of Administration/Chief Financial Officer
6905 N Wickham Road Suite 500
Melbourne, FL 32940
Phone: 321-757-6119
E-mail: jfernandez@iss-casis.org

3.4.4 Government Payment Office

Financial Management Office (For SF 425s)
Attn: Division of Payment Management
P.O. Box 6021
Rockville, MD 20852
<http://www.dpm.psc.gov>

Financial Management Office (For inquiries)
Attn: FMD-Grants
NASA Shared Services Center
Building 111, C Road
Stennis Space Center, MS 39529
NSSC-AccountsPayable@nasa.gov
Phone Number: 877-677-2123
Fax Number: 866-779-6772

3.4.5 Cooperative Agreement Technical Officer

Attn: ISS NL CATO, Michael Read
ISS Program Office
NASA Johnson Space Center
Mail Code OZ1
2101 NASA Parkway
Houston, TX 77058

4. GENERAL AND SPECIAL PROVISIONS

4.1 General Definitions

4.1.1 "Principal Investigator" shall be deemed to mean "Executive Director" for purposes of this Cooperative Agreement. The current Executive Director is Col. Gregory H. Johnson.

4.2 Scope of Effort

COOPERATIVE AGREEMENT SPECIAL CONDITION (OCTOBER 2000) [1260.51]

- (a) This award is a Cooperative Agreement(s) as it is anticipated there will be substantial NASA involvement during performance of the effort. NASA and the Recipient mutually agree to the following statement of anticipated cooperative interactions which may occur during the performance of this effort:

Section III in Volume I of the proposal CASIS submitted on April 1, 2011 in response to CAN Number: NNH11SOMD002C as modified by CASIS' clarification response submitted on June 8, 2011, and as further modified by the Annual Program Plan, and by the specific terms of this Cooperative Agreement, including modifications thereto.

- (b) The terms "grant" and "Recipient" mean "Cooperative Agreement" and "Recipient of Cooperative Agreement," respectively, wherever the terms appear in provisions and special conditions included in this agreement.
- (c) NASA's ability to participate and perform its collaborative effort under this Cooperative Agreement is subject to the availability of appropriated funds and nothing in this Cooperative Agreement commits the United States Congress to appropriate funds therefore.

4.3 COMPLIANCE WITH OMB CIRCULAR A-110 (OCTOBER 2000) [1260.21]

This grant or cooperative agreement is subject to the requirements set forth in OMB Circular A-110, Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations. Recipients are required to comply with the requirements of A-110, as adopted by NASA as subpart B of Part 1260 of Title 14 of the Code of Federal Regulations. Specific provisions set forth in this award document are provided to supplement and clarify, not replace, the Circular, except in circumstances where a waiver from Circular requirements has been obtained by NASA.

[End of provision]

4.4 TECHNICAL PUBLICATIONS AND REPORTS (DECEMBER 2003) [1260.22]

Technical publication and reporting requirements in this clause apply only to work performed directly by CASIS and not to work performed by ISS NL users under agreements with CASIS. ISS NL users will report according to the requirements in their individual agreements.

- (a) NASA encourages the widest practicable dissemination of research results at any time during the course of the investigation.
- (1) All information disseminated as a result of the grant shall contain a statement which

acknowledges NASA's support and identifies the grant by number (e.g., "The material is based upon work supported by NASA under award No(s) GRNASM99G000001, etc.").

- (2) Except for articles or papers published in scientific, technical, or professional journals, the exposition of results from NASA supported research should also include the following disclaimer: "Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Aeronautics and Space Administration."
- (3) As a courtesy, any release of a NASA photograph or illustration should list NASA first on the credit line followed by the name of the Principal Investigator's Institution. An example follows:

"Photograph <or illustration, figure, etc.> courtesy of NASA <or NASA Center managing the mission or program> and the <Principal Investigator's institution>."

- (b) Reports shall be in the English language, informal in nature, and ordinarily not exceed three pages (not counting bibliographies, abstracts, and lists of other media). The recipient shall submit the following reports:
 - (1) A Progress Report for all but the final year of the grant. Each report is due 60 days before the anniversary date of the grant and shall briefly describe what was accomplished during the reporting period as outlined in 1260.151(d). A special condition specifying more frequent reporting may be required.
 - (2) A Summary of Research (or Educational Activity Report in the case of Education Grants) is due within 90 days after the expiration date of the grant, regardless of whether or not support is continued under another grant. This report shall be a comprehensive summary of significant accomplishments during the duration of the grant.
- (c) Progress Reports, Summaries of Research, and Educational Activity Reports shall include the following on the first page:
 - (1) Title of the grant.
 - (2) Type of report.
 - (3) Name of the principal investigator.
 - (4) Period covered by the report.
 - (5) Name and address of the recipient's institution.
 - (6) Grant number.
- (d) Progress Reports, Summaries of Research, and Educational Activity Reports shall be distributed as follows:
 - (1) The original report, in electronic format, to the Technical Officer.
 - (2) One copy to the NASA Grant Officer, with a notice to the Administrative Grant Officer, (when administration of the grant has been delegated to ONR), that a report was sent.
- (e) For Summaries of Research and published reports, one electronic copy shall also be sent to the NASA Center for AeroSpace Information (CASI), Attn: Document Processing Section, 7121 Standard Drive, Hanover, MD 21076.

[End of provision]

4.5 EXTENSIONS (OCTOBER 2000) [1260.23]

- (a) It is NASA policy to provide maximum possible continuity in funding grant-supported research and educational activities, therefore, grants may be extended for additional periods of time when necessary to complete work that was part of the original award. NASA generally only approves such extensions within funds already made available. Any extension that would require additional funding must be supported by a proposal submitted at least three months in advance of the expiration date of the grant.
- (b) In accordance with 1260.125(e)(2), Recipients may extend the expiration date of a grant if additional time beyond the established expiration date is required to assure adequate completion of the original scope of work within the funds already made available. For this purpose, the recipient may make a one-time no-cost extension, not to exceed 12 months, prior to the established expiration date. Written notification of such an extension, with the supporting reasons, must be received by the NASA Grant Officer at least ten days prior to the expiration of the award. A copy of the extension must also be forwarded to cognizant Office of Naval Research office. NASA reserves the right to disapprove the extension if the requirements set forth at 1260.125(e)(2) are not met.
- (c) Requests for approval for all other no-cost extensions must be submitted in writing to the NASA Grant Officer. Copies are to be forwarded to the cognizant Office of Naval Research office.

[End of provision]

4.6 TERMINATION AND ENFORCEMENT (OCTOBER 2000) [1260.24]

Termination and enforcement conditions of this award are specified §§1260.160 through 1260.162.

[End of provision]

4.7 CHANGE IN PRINCIPAL INVESTIGATOR OR SCOPE (OCTOBER 2000) [1260.25]

- (a) The Recipient shall obtain the approval of the NASA Grant Officer for a change of the Principal Investigator, or for a significant absence of the Principal Investigator from the project, defined as a three month absence from the program or a 25 percent reduction in time devoted to the project. Significantly reduced availability of the services of the Principal Investigator(s) named in the grant instrument could be grounds for termination, unless alternative arrangements are made and approved in writing by the Grant Officer.
- (b) Prior written approval is required from NASA if there is to be a significant change in the objective or scope.

[End of provision]

4.8 FINANCIAL MANAGEMENT (AUGUST 2003) [1260.26]

- (a) Advance payments through a Letter of Credit will be made by the Financial Management Office of the NASA Center assigned financial cognizance of the grant, using the Department of Health and Human Services' Payment Management System (DHHS/PMS), in accordance with procedures provided to the Recipient. The Recipient shall submit a Federal Cash Transactions Report (SF 272), and, when applicable, a Continuation Sheet (SF 272A) electronically to DHHS/PMS within 15 working days following the end of each Federal Fiscal quarter (i.e., December 31, March 31, June 30, and September 30). One Federal Cash Transactions Report shall be submitted for all grants financed under a letter of credit arrangement with each NASA Center.
- (b) In addition, the Recipient shall submit a final SF 272 in paper form to NASA within 90 calendar days after the expiration date of the grant. The final SF 272 shall pertain only to the completed grant and shall include total disbursements from inception through completion. The report shall be marked "Final". The final SF 272 shall be submitted to the Financial Management Office, with a copy sent to the NASA Grant Officer.
- (c) Unless otherwise directed by the Grant Officer, any unexpended balance of funds which remains at the end of any funding period, except the final funding period of the grant, shall be carried over to the next funding period, and may be used to defray costs of any funding period of the grant. This includes allowing the carryover of funds to the second and subsequent years of a multiple year grant. This provision also applies to subcontractors performing substantive work under the grant. For grant renewals, the estimated amount of unexpended funds shall be identified in the grant budget section of the Recipient's renewal proposal. NASA reserves the right to remove unexpended balances from grants when insufficient efforts have been made by the grantee to liquidate funding balances in a timely fashion.

[End of provision]

4.9 EQUIPMENT AND OTHER PROPERTY (FEBRUARY 2004) [1260.27]

- (a) NASA permits acquisition of special purpose and general purpose equipment specifically required for use exclusively for research activities.
 - (1) Acquisition of special purpose or general purpose equipment costing in excess of \$5,000 (unless a lower threshold has been established by the Recipient) and not included in the approved proposal budget, requires the prior approval of the NASA Grant Officer. Grant awards under the Federal Demonstration Partnership are exempt from this requirement. Requests to the NASA Grant Officer for the acquisition of equipment shall be supported by written documentation setting forth the description, purpose, and acquisition value of the equipment, and including a written certification that the equipment will be used exclusively for research activities. (A change in the model number of a prior approved piece of equipment does not require resubmission for that item.)
 - (2) Special purpose and general purpose equipment costing in excess of \$5,000 (unless a lower threshold has been established by the Recipient) acquired by the recipient under a grant or cooperative agreement for the purpose of research shall be titled to the Recipient as "exempt" without further obligation to NASA, including reporting of the

equipment, in accordance with 1260.133(b). Special purpose or general purpose equipment costing in excess of \$5,000 (unless a lower threshold has been established by the Recipient) acquired by the Recipient under a grant or cooperative agreement for non-research work shall be titled to the Recipient in accordance with §1260.134.

- (3) Special purpose or general purpose equipment acquired by the Recipient with grant funds, valued under \$5,000 (unless a lower threshold is established by the Recipient) are classified as "supplies," do not require the prior approval of the NASA Grant Officer, shall vest in the Recipient and will be titled to the Recipient in accordance with §1260.135.
 - (4) Grant funds may be expended for the acquisition of land or interests therein or for the acquisition and construction of facilities only under a facilities grant, as defined in § 1260.12(c) (4).
- (b) The Recipient shall submit an annual Inventory Report, to be received no later than October 15 of each year, which lists all reportable (non-exempt equipment and/or Federally owned property) in its custody as of September 30. Negative responses for annual Inventory Reports (when there is no reportable equipment) are not required. A Final Inventory Report of Federally Owned Property, including equipment where title was taken by the Government, will be submitted by the Recipient no later than 60 days after the expiration date of the grant. Negative responses for Final Inventory Reports are required.
- (1) All reports will include the information listed in paragraph (f)(1) of § 1260.134, Equipment. No specific report form or format is required, provided that all necessary information set forth at § 1260.134(f)(1) is provided.
 - (2) The original of each report shall be submitted to the Deputy Chief Financial Officer (Finance). Copies shall be furnished to the Center Industrial Property Officer and to ONR.

[End of provision]

4.10 NATIONAL SECURITY (OCTOBER 2000) [1260.31]

Normally, NASA grants do not involve classified information. However, if it is known in advance that a grant involves classified information or if the work on the grant is likely to develop classified information, individuals performing on the grant who will have access to the information must obtain the appropriate security clearance in advance of performing on the grant, in accordance with NASA Policy Guidance (NPG) 1620.1, Security Procedures and Guidelines. When access to classified information is not originally anticipated in the performance of a grant, but such information is subsequently sought or potentially developed by the grant Recipient, the NASA Grant Officer who issued the grant shall be notified immediately, and prior to work under the grant proceeding, to implement the appropriate clearance requirements.

[End of provision]

4.11 NONDISCRIMINATION (APRIL 2004) [1260.32]

- (a) To the extent provided by law and any applicable agency regulations, this award and any program assisted thereby are subject to the provisions of Title VI of the Civil Rights Act of 1964 (Public Law 88-352), Title IX of the Education amendments of 1972 (Public Law 92-318, 20 U.S.C. 1681 et seq.), Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794), the Age Discrimination Act of 1975 (Public Law 94-135), the implementing regulations issued pursuant thereto by NASA, and the assurance of compliance which the recipient has filed with NASA.
- (b) The Recipient shall obtain from each organization that applies or serves as a sub recipient, Contractor or subcontractor under this award (for other than the provision of commercially available supplies, materials, equipment, or general support services) an assurance of compliance as required by NASA regulations.
- (c) Work on NASA grants is subject to the provisions of Title VI of the Civil Rights Act of 1964 (Public Law 88-352; 42 U.S.C. 2000d-l), Title IX of the Education Amendments of 1972 (20 U.S.C. 1680 et seq.), Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), the Age Discrimination Act of 1975 (42 U.S.C. 6101 et seq.), and the NASA implementing regulations (14 CFR Parts 1250, 1251, 1252, and 1253).

[End of provision]

4.12 SUBCONTRACTS (OCTOBER 2000) [1260.33]

- (a) Recipients shall notify NASA when a subcontract award will be made that falls within the thresholds established at §1260.144(e). When pre-award review of a subcontract is requested by the NASA Grant Officer in accordance with §1260.144(e), the following specific documents will be made available to the NASA Grant Officer. (The Grant Officer can request additional documents):
 - (1) A copy of the proposed subcontract.
 - (2) The basis for subcontractor selection.
 - (3) Justification for lack of competition when competitive bids or offers are not obtained.
 - (4) The subcontract budget and basis for subcontract cost or price.
- (b) The Recipient (with the exception of foreign organizations) shall utilize small business concerns, small disadvantaged business concerns, Historically Black Colleges and Universities, minority educational institutions, and women-owned small business concerns as subcontractors to the maximum extent practicable.

[End of provision]

4.13 CLEAN AIR AND WATER (OCTOBER 2000) [1260.34]

The Recipient agrees to the following:

- (a) Comply with applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended (42 U.S.C. 7401 et seq.) and of the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.).

- (b) Ensure that no portion of the work under this award will be performed in a facility listed on the Environmental Protection Agency (EPA) List of Violating Facilities on the date that this award was effective unless and until the EPA eliminates the name of such facility or facilities from such listings.
- (c) Use its best efforts to comply with clean air standards and clean water standards at the facility in which the award is being performed.
- (d) Insert the substance of the provisions of this clause into any nonexempt sub award or contract under the award.
- (e) Report violations to NASA or to EPA.

[End of provision]

4.14 INVESTIGATIVE REQUIREMENTS (JANUARY 2004) [1260.35]

- (a) NASA reserves the right to perform security checks and to deny or restrict access to a NASA Center, facility, or computer system, or to NASA technical information, as NASA deems appropriate. To the extent the Recipient needs such access for performance of the work; the Recipient shall ensure that individuals needing such access provide the personal background and biographical information requested by NASA. Individuals failing to provide the requested information may be denied such access.
- (b) All requests to visit a NASA Center or facility must be submitted in a timely manner in accordance with instructions provided by that Center or facility.

[End of provision]

4.15 TRAVEL AND TRANSPORTATION (OCTOBER 2000) [1260.36]

- (a) The Fly American Act, 49 U.S.C. 1517, requires the Recipient to use U.S. flag air carriers for international air transportation of personnel and property to the extent that service by those carriers is available.
- (b) Department of Transportation regulations, 49 CFR Part 173, govern Recipient shipment of hazardous materials and other items.

[End of provision]

4.16 SAFETY (OCTOBER 2000) [1260.37]

- (a) The Recipient shall act responsibly in matters of safety and shall take all reasonable safety measures in performing under this grant or cooperative agreement. The Recipient shall comply with all applicable federal, state, and local laws relating to safety. The Recipient shall maintain a record of, and will notify the NASA Grant Officer immediately (within one workday) of any accident involving death, disabling injury or substantial loss of property in performing this grant or cooperative agreement. The Recipient will immediately (within one workday) advise NASA of hazards that come to its attention as a result of the work performed.

- (b) Where the work under this grant or cooperative agreement involves flight hardware, the hazardous aspects, if any, of such hardware will be identified, in writing, by the Recipient. Compliance with this provision by subcontractors shall be the responsibility of the Recipient.

[End of provision]

4.17 DRUG-FREE WORKPLACE (OCTOBER 2000) [1260.38]

- (a) Definitions. As used in this provision--

"Controlled substance" means a controlled substance in schedules I through V of section 202 of the Controlled Substances Act (21 U.S.C. 812) and as further defined in regulation at 21 CFR 1308.11 through 1308.15.

"Conviction" means a finding of guilt (including a plea of nolo contendere) or imposition of sentence, or both, by any judicial body charged with the responsibility to determine violations of the Federal or State criminal drug statutes.

"Criminal drug statute" means a Federal or non-Federal criminal statute involving the manufacture, distribution, dispensing, possession, or use of any controlled substance.

"Drug-free workplace" means the site(s) for the performance of work done by the Recipient in connection with a specific grant or cooperative agreement at which employees of the Recipient are prohibited from engaging in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance.

"Employee" means an employee of a Recipient directly engaged in the performance of work under a Government grant or cooperative agreement. "Directly engaged" is defined to include all direct cost employees and any other Recipient employee who has other than a minimal impact or involvement in performance of the grant or cooperative agreement.

"Individual" means a Proposer/Recipient that has no more than one employee including the Proposer/Recipient.

- (b) The Recipient, if other than an individual, shall--within 30 days after award (unless a longer period is agreed to in writing), or as soon as possible for grants and cooperative agreements of less than 30 days performance duration--

- (1) Publish a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the Recipient's workplace and specifying the actions that will be taken against employees for violations of such prohibition;
- (2) Establish an ongoing drug-free awareness program to inform such employees about--
 - (i) The dangers of drug abuse in the workplace;
 - (ii) The Recipient's policy of maintaining a drug-free workplace;
 - (iii) Any available drug counseling, rehabilitation, and employee assistance programs;
 - an;
 - (iv) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;

- (3) Provide all employees engaged in performance of the grant or cooperative agreement with a copy of the statement required by paragraph (b)(1) of this provision;
- (4) Notify such employees in writing in the statement required by paragraph (b)(1) of this provision that, as a condition of continued employment on the grant or cooperative agreement, the employee will—
 - (i) Abide by the terms of the statement; and
 - (ii) Notify the employer in writing of the employee's conviction under a criminal drug statute for a violation occurring in the workplace no later than 5 days after such conviction;
- (5) Notify the Grant Officer in writing within 10 days after receiving notice under paragraph (b)(4)(ii) of this provision, from an employee or otherwise receiving actual notice of such conviction. The notice shall include the position title of the employee;
- (6) Within 30 days after receiving notice under paragraph (b)(4) (ii) of this provision of a conviction, take one of the following actions with respect to any employee who is convicted of a drug abuse violation occurring in the workplace:
 - (i) Taking appropriate personnel action against such employee, up to and including termination; or
 - (ii) Require such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency; and
- (7) Make a good faith effort to maintain a drug-free workplace through implementation of paragraphs (b)(1) through (b)(6) of this provision.
- (c) The Recipient, if an individual, agrees by acceptance of the grant or cooperative agreement, not to engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance during performance.
- (d) In addition to other remedies available to the Government, the Recipient's failure to comply with the requirements of paragraph (b) or (c) of this provision may render the Recipient subject to suspension of payments, termination of the grant or cooperative agreement, and suspension or debarment.

[End of provision]

4.18 BUY AMERICAN ENCOURAGEMENT (MAY 2003) [1260.39]

As stated in Section 319 of Public Law 106-391, the NASA Authorization Act of 2000, Recipients are encouraged to purchase only American-made equipment and products.

[End of provision]

4.19 MULTIPLE YEAR GRANT OR COOPERATIVE AGREEMENT (OCTOBER 2000) [1260.52]

This is a multiple year grant or cooperative agreement. Contingent on the availability of funds, scientific progress of the project, and continued relevance to NASA programs, NASA anticipates continuing support at approximately the following levels:

Fiscal year 2011 - \$3,750,000
 Fiscal year 2012 - \$15,000,000
 Fiscal year 2013 - \$15,000,000
 Fiscal year 2014 - \$15,000,000
 Fiscal year 2015 - \$15,000,000
 Fiscal year 2016 - \$15,000,000
 Fiscal year 2017 - \$15,000,000
 Fiscal year 2018 - \$15,000,000
 Fiscal year 2019 - \$15,000,000
 Fiscal year 2020 - \$15,000,000

The term of this Agreement shall commence upon the effective date indicated on the coversheet and last through the end of FY2020 unless terminated earlier in accordance with section 4.6 of this Agreement. This Agreement may be extended for an additional 5 year period by mutual consent of the parties. It is the Government's intent to assess the progress of the overall research during the 9th year of performance (i.e. FY2020). If the Government determines, based on the overall success of the Recipient, that the 5-year extension period is to be implemented, the Recipient will be required to submit a separate budget proposal for the extension period, in accordance with instructions to be provided by the NASA Grants Officer.

4.20 INCREMENTAL FUNDING (OCTOBER 2000) [1260.53]

- (a) Only \$50,950,000 of the amount indicated on the face of this award is available for payment and allotted to this award. NASA contemplates making additional allotments of funding during performance of this effort. It is anticipated that these funds will be obligated as appropriated funds become available without any action required by the Recipient. The Recipient will be given written notification by the NASA Grants Officer.

Funding is allocated as follows:

FY 11 - \$3,750,000
 FY 12 - \$15,000,000
 FY 13 - \$15,000,000
 FY 14 - \$15,000,000
 FY 15 - \$2,200,000

- (b) The Recipient agrees to perform work up to the point at which the total amount paid or payable by the Government approximates but does not exceed the total amount actually allotted to this grant or cooperative agreement. NASA is not obligated to reimburse the Recipient for the expenditure of amounts in excess of the total funds allotted by NASA to this grant or cooperative agreement. The Recipient is not authorized to continue performance beyond the amount allotted to this award.

4.21 Reserved

4.22 WITHHOLDING (AUGUST 2003) [1260.56]

If a Recipient fails to comply with the project objectives, the terms and conditions of this award, or reporting requirements under this or previous NASA awards, NASA may withhold advance payments under this award including its augmentations, and may also withhold advance payments under future awards to the Recipient, pending correction of the deficiency by the Recipient. Upon determination that the deficiency has been corrected, the cognizant NASA Financial Management Office shall resume advance payments and release of previously withheld amounts after coordination with the Grant Officer.

4.23 Reserved**4.24 PUBLIC INFORMATION (OCTOBER 2000) [1260.60]**

Information regarding this grant (including a copy of this award document) may be released by the Recipient without restriction. However, technical information relating to work performed under this grant where there was a NASA contribution should be released by the Recipient only after consultation with the NASA Technical Officer.

4.25 CROSS-WAIVER OF LIABILITY FOR INTERNATIONAL SPACE STATION ACTIVITIES (OCTOBER 2012)

- (a) Subject to the provisions of section 4.25(b), with respect to activities undertaken under this agreement,
 - (1) The Recipient agrees not to make any claim against NASA or the U.S. Government with respect to the injury or death of its employees or its contractors and subcontractor employees, or to the loss of its property or that of its Contractors and subcontractors, whether such injury, death, damage or loss arises through negligence or otherwise, except in the case of willful misconduct.
 - (2) In addition, the Recipient agrees to indemnify and hold the U.S. Government and its Contractors and subcontractors harmless from any third party claim, judgment, or cost arising from the injury to or death of any person, or for damage to or loss of any property, arising as a result of its possession or use of any U.S. Government property.
- (b) For Protected Space Operations, as defined in paragraph (2)(v.) below, NASA and CASIS (the Parties) agree as follows:
 - (1) The objective of this section (b) is to establish a cross-waiver of liability in the interest of encouraging participation in the exploration, exploitation, and use of outer space through the International Space Station (ISS). The Parties intend that the cross-waiver of liability be broadly construed to achieve this objective.
 - (2) For the purposes of this section (b):
 - (i) The term "Damage" means:
 - (A) Bodily injury to, or other impairment of health of, or death of, any person;

- (B) Damage to, loss of, or loss of use of any property;
 - (C) Loss of revenue or profits; or
 - (D) Other direct, indirect, or consequential Damage.
- (ii) The term "Launch Vehicle" means an object, or any part thereof, intended for launch, launched from Earth, or returning to Earth which carries Payloads, persons, or both.
- (iii) The term "Partner State" includes each Contracting Party for which the Agreement Among the Government of Canada, Governments of Member States of the European Space Agency, the Government of Japan, the Government of the Russian Federation, and the Government of the United States of America concerning Cooperation on the Civil International Space Station (IGA) has entered into force, pursuant to Article 25 of the IGA or pursuant to any successor agreement. A Partner State includes its Cooperating Agency. It also includes any entity specified in the Memorandum of Understanding (MOU) between NASA and the Government of Japan to assist the Government of Japan's Cooperating Agency in the implementation of that MOU.
- (iv) The term "Payload" means all property to be flown or used on or in a Launch Vehicle or the ISS.
- (v) The term "Protected Space Operations" means all Launch Vehicle or Transfer Vehicle activities, ISS activities, and Payload activities on Earth, in outer space, or in transit between Earth and outer space in implementation of this Agreement, the IGA, MOUs concluded pursuant to the IGA, and implementing arrangements. It includes, but is not limited to:
- (A) Research, design, development, test, manufacture, assembly, integration, operation, or use of Launch Vehicles or Transfer Vehicles, the ISS, Payloads, or instruments, as well as related support equipment and facilities and services; and
 - (B) All activities related to ground support, test, training, simulation, or guidance and control equipment and related facilities or services.
- "Protected Space Operations" also includes all activities related to evolution of the ISS, as provided for in Article 14 of the IGA.
- "Protected Space Operations" excludes activities on Earth which are conducted on return from the ISS to develop further a Payload's product or process for use other than for ISS-related activities in implementation of the IGA.
- (vi) The term "Related Entity" means:
- (A) A contractor or subcontractor of a Party or a Partner State at any tier;
 - (B) A user or customer of a Party or a Partner State at any tier; or
 - (C) A contractor or subcontractor of a user or customer of a Party or a Partner State at any tier.

The terms “contractor” and “subcontractor” include suppliers of any kind.

The term “Related Entity” may also apply to a State, or an agency or institution of a State, having the same relationship to a Partner State as described in paragraphs (2)(vi)(A) through (2)(vi)(C) of this subsection (b) or otherwise engaged in the implementation of Protected Space Operations as defined in paragraph (2)(v) above.

(vii) The term “Transfer Vehicle” means any vehicle that operates in space and transfers Payloads or persons or both between two different space objects, between two different locations on the same space object, or between a space object and the surface of a celestial body. A Transfer Vehicle also includes a vehicle that departs from and returns to the same location on a space object.

(3) Cross-waiver of liability:

(i) Each Party agrees to a cross-waiver of liability pursuant to which each Party waives all claims against any of the entities or persons listed in paragraphs (3)(i)(A) through (3)(i)(D) of this subsection (b) based on Damage arising out of Protected Space Operations. This cross-waiver shall apply only if the person, entity, or property causing the Damage is involved in Protected Space Operations and the person, entity, or property damaged is damaged by virtue of its involvement in Protected Space Operations. The cross-waiver shall apply to any claims for Damage, whatever the legal basis for such claims, against:

(A) Another Party;

(B) A Partner State other than the United States of America;

(C) A Related Entity of any entity identified in paragraph (3)(i)(A) or (3)(i)(B) of this subsection (b); or

(D) The employees of any of the entities identified in paragraphs (3)(i)(A) through (3)(i)(C) of this subsection (b).

(ii) In addition, each Party shall, by contract or otherwise, extend the cross-waiver of liability, as set forth in paragraph (3)(i) of this subsection (b), to its Related Entities by requiring them, by contract or otherwise, to:

(A) Waive all claims against the entities or persons identified in paragraphs (3)(i)(A) through (3)(i)(D) of this subsection (b); and

(B) Require that their Related Entities waive all claims against the entities or persons identified in paragraphs (3)(i)(A) through (3)(i)(D) of this subsection (b).

(iii) For avoidance of doubt, this cross-waiver of liability includes a cross-waiver of claims arising from the Convention on International Liability for Damage Caused by Space Objects, which entered into force on September 1, 1972, where the person, entity, or property causing the Damage is involved in Protected Space Operations and the person, entity, or property damaged is damaged by virtue of its involvement in Protected Space Operations.

- (iv) Notwithstanding the other provisions of this subsection (b), this cross-waiver of liability shall not be applicable to:
 - (A) Claims between a Party and its own Related Entity or between its own Related Entities;
 - (B) Claims made by a natural person, his/her estate, survivors or subrogees (except when a subrogee is a Party to this Agreement or is otherwise bound by the terms of this cross-waiver) for bodily injury to, or other impairment of health of, or death of, such person;
 - (C) Claims for Damage caused by willful misconduct;
 - (D) Intellectual property claims;
 - (E) Claims for Damage resulting from a failure of a Party to extend the cross-waiver of liability to its Related Entities, pursuant to paragraph (3)(ii.) of this subsection (b); or
 - (F) Claims by a Party arising out of or relating to another Party's failure to perform its obligations under this Agreement.
- (v) Nothing in this subsection (b) shall be construed to create the basis for a claim or suit where none would otherwise exist.

4.26 ELECTRONIC FUNDS TRANSFER PAYMENT METHODS (OCTOBER 2000)
[1260.69]

- (a) Payments under this grant will be made by the Government by electronic funds transfer through the Treasury Fedline Payment System (FEDLINE) or the Automated Clearing House (ACH), at the option of the Government. After award, but no later than 14 days before an invoice is submitted, the Recipient shall designate a financial institution for receipt of electronic funds transfer payments, and shall submit this designation to the Grant Officer or other Government official, as directed.
- (b) For payment through FEDLINE, the Recipient shall provide the following information:
 - (1) Name, address, and telegraphic abbreviation of the financial institution receiving payment.
 - (2) The American Bankers Association 9-digit identifying number for wire transfers of the financing institution receiving payment if the institution has access to the Federal Reserve Communication System.
 - (3) Payee's account number at the financial institution where funds are to be transferred.
 - (4) If the financial institution does not have access to the Federal Reserve Communications System, name, address, and telegraphic abbreviation of the correspondent financial institution through which the financial institution receiving payment obtains wire transfer activity. Provide the telegraphic abbreviation and American Bankers Association

identifying number for the correspondent institution.

(c) For payment through ACH, the Recipient shall provide the following information:

- (1) Routing transit number of the financial institution receiving payment (same as American Bankers Association identifying number used for FEDLINE).
- (2) Number of account to which funds are to be deposited.
- (3) Type of depositor account ("C" for checking, "S" for savings).
- (4) If the Recipient is a new enrollee to the ACH system, a "Payment Information Form, "SF 3881, must be completed before payment can be processed.

(d) In the event the Recipient, during the performance of this grant, elects to designate a different financial institution for the receipt of any payment made using electronic funds transfer procedures, notification of such change and the required information specified above must be received by the appropriate Government official 30 days prior to the date such change is to become effective.

(e) The documents furnishing the information required in this clause must be dated and contain the signature, title, and telephone number of the Recipient official authorized to provide it, as well as the Recipient's name and contract number.

(f) Failure to properly designate a financial institution or to provide appropriate payee bank account information may delay payments of amounts otherwise properly due.

(g) The requirements set forth in this special condition supersede grant provision 1260.26 Financial Management.

4.27 RESTRICTIONS ON FUNDING ACTIVITIES WITH CHINA FOR AWARDS SUBJECT TO 14 CFR § 1260 (DEVIATION FEB 2012)

(a) Pursuant to The Department of Defense and Full-Year Appropriation Act, Public Law 112-10, Section 1340(a); The Consolidated and Further Continuing Appropriation Act of 2012, Public Law 112-55, Section 539; and future-year appropriations (hereinafter, "the Acts"), NASA is restricted from using funds appropriated in the Acts to enter into or fund any grant or cooperative agreement of any kind to participate, collaborate, or coordinate bilaterally with China or any Chinese-owned company, at the prime recipient level or at any subrecipient level, whether the bilateral involvement is funded or performed under a no-exchange of funds arrangement.

(b) Definition: "China or Chinese-owned Company" means the People's Republic of China, any company owned by the People's Republic of China, or any company incorporated under the laws of the People's Republic of China.

(c) The restrictions in the Acts do not apply to commercial items of supply needed to perform a grant or cooperative agreement.

(d) Subaward – The recipient shall include the substance of this provision in all subawards made hereunder."

[End of Provision]

4.28 PREVENTING PERSONAL CONFLICTS OF INTEREST

(a) Definitions. As used in this clause:

"Subjective judgment" involves the use of attitudes, beliefs and opinions, giving the employee latitude in executing the Cooperative Agreement. Being free of financial interests is the best manner to ensure there is no basis for "bias" in executing the Cooperative Agreement. The following portions of the scope of effort have been defined as involving subjective judgment:

- (1) Selection
- (2) Prioritization
- (3) Preparation of grant solicitations

"Covered employee" means an individual who—

- (1) Is an employee of the Recipient or a subcontractor, a consultant, a partner, or that is a sole proprietor;
- (2) Performs a function involving "subjective judgment."

"Non-public information" means any information that a covered employee gains by reason of work under the Cooperative Agreement relative to a function involving subjective judgment that the covered employee knows, or reasonably should know, has not been made public.

"Personal conflict of interest" means a situation in which a covered employee has a financial interest, personal activity, or relationship that could compete with impair the employee's ability to act impartially and in the best interest of the Government when performing under the Cooperative Agreement.

- (1) Among the sources of personal conflicts of interest are—
 - (i) Financial interests of the covered employee, of close family members, or of other members of the household;
 - (ii) Other employment or financial relationships (including seeking or negotiating for prospective employment or business); and
 - (iii) Gifts, including travel.
- (2) Financial interests referred to in paragraph (1) of this definition may arise from—
 - (i) Compensation, including wages, salaries, commissions, professional fees, or fees for business referrals;
 - (ii) Consulting relationships (including commercial and professional consulting and service arrangements, scientific and technical advisory board memberships, or serving as an expert witness in litigation);
 - (iii) Services provided in exchange for honorariums or travel expense reimbursements;
 - (iv) Research funding or other forms of research support;
 - (v) Investment in the form of stock or bond ownership or partnership interest (excluding diversified mutual fund investments);
 - (vi) Real estate investments;
 - (vii) Patents, copyrights, and other intellectual property interests; or
 - (viii) Business ownership and investment interests.

(b) Requirements. The Recipient shall—

- (1) Have procedures in place to screen covered employees for potential personal conflicts of interest, including—
 - (i) Obtaining and maintaining a financial disclosure statement from each covered employee, when the employee is initially assigned to the task involving subjective judgment; and
 - (ii) Requiring each covered employee to update the disclosure statement whenever the employee's personal or financial circumstances change in such a way that a new personal conflict of interest might occur because of the task the covered employee is performing.
- (2) For each covered employee—
 - (i) Prevent personal conflicts of interest, including not assigning or allowing a covered employee to perform a function involving the use subjective judgment if the Recipient has identified a personal conflict of interest for the employee that the Recipient or employee cannot satisfactorily prevent or mitigate in consultation with the contracting agency;
 - (ii) Prohibit use of non-public information for personal gain; and
 - (iii) Obtain a signed non-disclosure agreement to prohibit disclosure of non-public information.
- (3) Inform covered employees of their obligation—
 - (i) To disclose and prevent personal conflicts of interest;
 - (ii) Not to use non-public information for personal gain; and
 - (iii) To avoid even the appearance of personal conflicts of interest;
- (4) Maintain effective oversight to verify compliance with personal conflict-of-interest safeguards;
- (5) Take appropriate disciplinary action in the case of covered employees who fail to comply with policies established pursuant to this provision; and
- (6) Report to the Grants Officer any personal conflict-of-interest violation by a covered employee as soon as it is identified. This report shall include a description of the violation and the actions taken by the Recipient in response to the violation. Personal conflict-of-interest violations include—
 - (i) Failure by a covered employee to disclose a personal conflict of interest; and
 - (ii) Use by a covered employee of non-public information for personal gain.

(c) Mitigation or waiver.

- (1) In exceptional circumstances, if the Recipient cannot satisfactorily prevent a personal conflict of interest as required by paragraph (b)(2)(i) of this clause, the Recipient may submit a request through the Grants Officer for—
 - (i) Agreement to a plan to mitigate the personal conflict of interest; or
 - (ii) A waiver of the requirement.
- (2) The Recipient also must notify the Grants Officer of any de minimis conflict a covered employee may have. A conflict is considered de minimis if the aggregate value

belonging to covered employee, the spouse, and the minor children in the following holdings does not exceed \$15,000.

- (i) Publicly traded securities,
- (ii) Long-term Federal Government securities, and
- (iii) Municipal securities

- (d) Remedies. In addition to other remedies available to the Government, the Recipient's failure to comply with the requirements of paragraphs (b), (c)(2), or (e) of this clause may render the Recipient subject to termination of the Cooperative Agreement.
- (e) Subcontract flowdown. The Recipient shall include the substance of this provision including this paragraph (e), in subcontracts as appropriate.

4.29 MITIGATION OF ORGANIZATIONAL CONFLICTS OF INTEREST

- (a) Mitigation plan. The Organizational Conflict of Interest Mitigation Plan and its obligations are hereby incorporated in this Cooperative Agreement and attached as Attachment 2.
- (b) Changes.
 - (1) Either the Recipient or the Government may propose changes to the Organizational Conflict of Interest Mitigation Plan. Such changes are subject to the mutual agreement of the parties and will become effective only upon incorporating the change into the plan by amendment to the Cooperative Agreement.
 - (2) In the event that the Government and the Recipient cannot agree upon a mutually acceptable change, the Government reserves the right to make a unilateral change to the OCI Plan as necessary, subject to Recipient appeal.
- (c) Violation. The Recipient shall report any violation of the Organizational Conflict of Interest Mitigation Plan to the Grants Officer. This report shall include a description of the violation and the actions the Recipient has taken or proposes to take to mitigate and avoid repetition of the violation. After conducting such further inquiries and discussions as may be necessary, the Grants Officer and the Recipient shall agree on appropriate corrective action, if any, or the Grants Officer shall direct corrective action.
- (d) Breach. Any breach of the above restrictions or any nondisclosure or misrepresentation of any relevant facts required regarding organizational conflicts of interests to be disclosed may result in termination of this Cooperative Agreement.
- (e) Subcontracts. When the possibility of an OCI exists, CASIS will ensure that OCI prevention and mitigation requirements (including this paragraph (e)) flow down to affected subcontractors at any tier. The terms "Recipient" and "Grants Officer" shall be appropriately modified to reflect the change in parties and to preserve the Government's rights.

4.30 PATENT RIGHTS (MAY 2006) [1260.28]

- (a) Definitions

- (1) "Invention" means any invention or discovery which is or may be patentable or otherwise protectable under Title 35 of the United States Code, or any novel variety of plant which is or

may be protected under the Plant Variety Protection Act (7 U.S.C. 2321 et seq.).

(2) "Subject invention" means any invention of the Recipient conceived or first actually reduced to practice in the performance of work under this grant, provided that in the case of a variety of plant, the date of determination (as defined in section 41(d) of the Plant Variety Protection Act, 7 U.S.C. 2401(d)) must also occur during the period of grant performance.

(3) "Practical Application" means to manufacture in the case of a composition or product, to practice in the case of a process or method, or to operate in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are, to the extent permitted by law or government regulations, available to the public on reasonable terms.

(4) "Made" when used in relation to any invention means the conception or first actual reduction to practice of such invention.

(5) "Small Business Firm" means a small business concern as defined at section 2 of Pub. L. 85-536 (15 U.S.C. 632) and implementing regulations of the Administrator of the Small Business Administration. For the purpose of this clause, the size standards for small business concerns involved in government procurement and subcontracting at 13 CFR 121.3-8 and 13 CFR 121.3-12, respectively, will be used.

(6) "Nonprofit Organization" means a university or other institution of higher education or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. 501(c) and exempt from taxation under section 501(a) of the Internal Revenue Code (25 U.S.C. 501(a)) or any nonprofit scientific or educational organization qualified under a state nonprofit organization statute.

(b) Allocation of Principal Rights

The Recipient may retain the entire right, title, and interest throughout the world to each subject invention subject to the provisions of this clause and 35 U.S.C. 203. With respect to any subject invention in which the Recipient retains title, the Federal government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the subject invention throughout the world.

(c) Invention Disclosure, Election of Title and Filing of Patent Application by Recipient

(1) The Recipient will disclose each subject invention to NASA within two months after the inventor discloses it in writing to Recipient personnel responsible for patent matters. The disclosure to NASA shall be in the form of a written report and shall identify the grant under which the invention was made and the inventor(s). It shall be sufficiently complete in technical detail to convey a clear understanding to the extent known at the time of the disclosure, of the nature, purpose, operation, and the physical, chemical, biological or electrical characteristics of the invention. The disclosure shall also identify any publication, on sale or public use of the invention and whether a manuscript describing the invention has been submitted for publication and, if so, whether it has been accepted for publication at the time of disclosure. In addition, after disclosure to NASA, the Recipient will promptly notify NASA of the acceptance of any manuscript describing the invention for publication or of any on sale or public use planned by the Recipient.

(2) The Recipient will elect in writing whether or not to retain title to any such invention by notifying NASA within two years of disclosure to NASA. However, in any case where publication, on sale or public use has initiated the one year statutory period wherein valid patent protection can still be obtained in the United States, the period for election of title may be shortened by NASA to a date that is no more than 60 days prior to the end of the statutory period.

(3) The Recipient will file its initial patent application on a subject invention to which it elects to retain title within one year after election of title or, if earlier, prior to the end of any statutory period wherein valid patent protection can be obtained in the United States after a publication, on sale, or public use. The Recipient will file patent applications in additional countries or international patent offices within either ten months of the corresponding initial patent application or six months from the date permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications where such filing has been prohibited by a Secrecy Order.

(4) Requests for extension of the time for disclosure, election, and filing under subparagraphs (1), (2), and (3) may, at the discretion of NASA, be granted.

(d) Conditions When the Government May Obtain Title

The Recipient will convey to NASA, upon written request, title to any subject invention—

(1) If the Recipient fails to disclose or elect title to the subject invention within the times specified in (c), above, or elects not to retain title; provided that NASA may only request title within 60 days after learning of the failure of the Recipient to disclose or elect within the specified times.

(2) In those countries in which the Recipient fails to file patent applications within the times specified in (c) above; provided, however, that if the Recipient has filed a patent application in a country after the times specified in (c) above, but prior to its receipt of the written request of NASA, the Recipient shall continue to retain title in that country.

(3) In any country in which the Recipient decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in reexamination or opposition proceeding on, a patent on a subject invention.

(e) Minimum Rights to Recipient and Protection of the Recipient Right to File

(1) The Recipient will retain a nonexclusive royalty-free license throughout the world in each subject invention to which the Government obtains title, except if the Recipient fails to disclose the invention within the times specified in (c), above. The Recipient's license extends to its domestic subsidiary and affiliates, if any, within the corporate structure of which the Recipient is a party and includes the right to grant sublicenses of the same scope to the extent the Recipient was legally obligated to do so at the time the grant was awarded. The license is transferable only with the approval of NASA except when transferred to the successor of that party of the Recipient's business to which the invention pertains.

(2) The Recipient's domestic license may be revoked or modified by NASA to the extent necessary to achieve expeditious practical application of the subject invention pursuant to an application for an exclusive license submitted in accordance with applicable provisions at

37 CFR part 404 and agency licensing regulations (if any). This license will not be revoked in that field of use or the geographical areas in which the Recipient has achieved practical application and continues to make the benefits of the invention reasonably accessible to the public. The license in any foreign country may be revoked or modified at the discretion of NASA to the extent the Recipient, its licensees, or the domestic subsidiaries or affiliates have failed to achieve practical application in that foreign country.

(3) Before revocation or modification of the license, NASA will furnish the Recipient a written notice of its intention to revoke or modify the license, and the Recipient will be allowed thirty days (or such other time as may be authorized by NASA for good cause shown by the Recipient) after the notice to show cause why the license should not be revoked or modified. The Recipient has the right to appeal, in accordance with applicable regulations in 37 CFR part 404 and agency regulations (if any) concerning the licensing of Government-owned inventions, any decision concerning the revocation or modification of the license.

(f) Recipient Action to Protect the Government's Interest

(1) The Recipient agrees to execute or to have executed and promptly deliver to NASA all instruments necessary to (i) establish or confirm the rights the Government has throughout the world in those subject inventions to which the Recipient elects to retain title, and (ii) convey title to NASA when requested under paragraph (d) above and to enable the government to obtain patent protection throughout the world in that subject invention.

(2) The Recipient agrees to require, by written agreement, its employees, other than clerical and nontechnical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by the Recipient each subject invention made under grant in order that the Recipient can comply with the disclosure provisions of paragraph (c), above, and to execute all papers necessary to file patent applications on subject inventions and to establish the government's rights in the subject inventions. This disclosure format should require, as a minimum, the information required by (c)(1), above. The Recipient shall instruct such employees through employee agreements or other suitable educational programs on the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars.

(3) The Recipient will notify NASA of any decisions not to continue the prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on a patent, in any country, not less than thirty days before the expiration of the response period required by the relevant patent office.

(4) The Recipient agrees to include, within the specification of any United States patent applications and any patent issuing thereon covering a subject invention, the following statement, "This invention was made with government support under (identify the grant) awarded by NASA. The government has certain rights in the invention."

(5) The Recipient shall include a list of any Subject Inventions required to be disclosed during the preceding year in the performance report, technical report, or renewal proposal. A complete list (or a negative statement) for the entire award period shall be included in the summary of research.

(g) Subcontracts (including purchase orders per 14 CFR § 1260.28(d))

(1) The Recipient will include this clause, suitably modified to identify the parties, in all subcontracts, regardless of tier, for experimental, developmental or research work to be performed by a small business firm or domestic nonprofit organization. The subcontractor will retain all rights provided for the Recipient in this clause, and the Recipient will not, as part of the consideration for awarding the subcontract, obtain rights in the subcontractor's subject inventions.

(2) The Recipient will include the clause at 48 CFR 1852.227-70, New Technology, in all other subcontracts, regardless of tier, with other than a small business firm or a nonprofit organization if a purpose of the subcontract is the performance of experimental, developmental, research, design, or engineering work of any of the types described in 48 CFR 1827.303-70(b) (1)-(6).

(3) In the case of subcontracts, at any tier, when the prime award with NASA was a contract (but not a grant or cooperative agreement), NASA, subcontractor, and the Recipient agree that the mutual obligations of the parties created by this clause constitute a contract between the subcontractor and NASA with respect to the matters covered by the clause; provided, however, that nothing in this paragraph is intended to confer any jurisdiction under the Contract Disputes Act in connection with proceedings under paragraph (j) of this clause.

(h) Reporting on Utilization of Subject Inventions

The Recipient agrees to submit on request periodic reports no more frequently than annually on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the Recipient or its licensees or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the Recipient, and such other data and information as NASA may reasonably specify. The Recipient also agrees to provide additional reports as may be requested by NASA in connection with any march-in proceeding undertaken by NASA in accordance with paragraph (j) of this clause. As required by 35 U.S.C. 202(c)(5), NASA agrees it will not disclose such information to persons outside the government without permission of the Recipient.

(i) Preference for United States Industry

Notwithstanding any other provision of this clause, the Recipient agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell any subject inventions in the United States unless such person agrees that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States. However, in individual cases, the requirement for such an agreement may be waived by NASA upon a showing by the Recipient or its assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible.

(j) March-in Rights

The Recipient agrees that with respect to any subject invention in which it has acquired title, NASA has the right in accordance with the procedures in 37 CFR 401.6 and any supplemental regulations of NASA to require the Recipient, an assignee or exclusive licensee of a subject invention to grant a nonexclusive, partially exclusive, or exclusive license in any field of use to a

responsible applicant or applicants, upon terms that are reasonable under the circumstances, and if the Recipient, assignee, or exclusive licensee refuses such a request NASA has the right to grant such a license itself if NASA determines that:

- (1) Such action is necessary because the Recipient or assignee has not taken, or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use.
- (2) Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the Recipient, assignee or their licensees;
- (3) Such action is necessary to meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the Recipient, assignee or licensees; or
- (4) Such action is necessary because the agreement required by paragraph (i) of this clause has not been obtained or waived or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of such agreement.

(k) Special Provisions for Grants with Nonprofit Organizations

If the Recipient is a nonprofit organization, it agrees that:

- (1) Rights to a subject invention in the United States may not be assigned without the approval of NASA, except where such assignment is made to an organization which has as one of its primary functions the management of inventions, provided that such assignee will be subject to the same provisions as the Recipient;
- (2) The Recipient will share royalties collected on a subject invention with the inventor, including Federal employee co-inventors (when NASA deems it appropriate) when the subject invention is assigned in accordance with 35 U.S.C. 202(e) and 37 CFR 401.10;
- (3) The balance of any royalties or income earned by the Recipient with respect to subject inventions, after payment of expenses (including payments to inventors) incidental to the administration of subject inventions, will be utilized for the support of scientific research or education; and
- (4) It will make efforts that are reasonable under the circumstances to attract licensees of subject invention that are small business firms and that it will give a preference to a small business firm when licensing a subject invention if the Recipient determines that the small business firm has a plan or proposal for marketing the invention which, if executed, is equally as likely to bring the invention to practical application as any plans or proposals from applicants that are not small business firms; provided, that the Recipient is also satisfied that the small business firm has the capability and resources to carry out its plan or proposal. The decision whether to give a preference in any specific case will be at the discretion of the Recipient. However, the Recipient agrees that the Secretary may review the Recipient's licensing program and decisions regarding small business applicants, and the Recipient will negotiate changes to its licensing policies, procedures, or practices with the Secretary when the Secretary's review discloses that the Recipient could take reasonable steps to implement more effectively the requirements of this paragraph (k)(4).

- (l) **Communications.** A copy of all submissions or requests required by this clause, plus a copy of any reports, manuscripts, publications or similar material bearing on patent matters, shall be sent to the Center Patent Counsel and the NASA Grant Officer in addition to any other submission requirements in the grant provisions. If any reports contain information describing a "subject invention" for which the Recipient has elected or may elect to retain title, NASA will use reasonable efforts to delay public release by NASA or publication by NASA in a NASA technical series until an application filing date has been established, provided that the Recipient identify the information and the "subject invention" to which it relates at the time of submittal. If required by the NASA Grant Officer, the Recipient shall provide the filing date, serial number and title, a copy of the patent application, and a patent number and issue date for any "subject invention" in any country in which the Recipient has applied for patents.

4.31 RIGHTS IN DATA (AUGUST 2005) [1260.30]

- (a) "Data" means recorded information, regardless of form, the media on which it may be recorded, or the method of recording, created under the grant or cooperative agreement. The term includes, but is not limited to, data of a scientific or technical nature, and any copyrightable work, including computer software and documentation thereof, in which the recipient asserts copyright, or for which copyright ownership was purchased, under the grant or cooperative agreement.
- (b) **Fully Funded Efforts.**
- (1) The Recipient grants to the Federal Government, a royalty-free, nonexclusive and irrevocable license to use, reproduce, distribute (including distribution by transmission) to the public, perform publicly, prepare derivative works, and display publicly, data in whole or in part and in any manner for Federal purposes and to have or permit others to do so for Federal purposes only.
 - (2) In order that the Federal Government may exercise its license rights in data, the Federal Government, upon request to the Recipient, shall have the right to review and/or obtain delivery of data resulting from the performance of work under this grant, and authorize others to receive data to use for Federal purposes. For purposes of this clause, Recipient's work under this grant shall include work performed by Recipient or for the Recipient's benefit (e.g., by Recipient's contractors, subcontractors, consultants, and other agents). Data generated by Recipient's customers and partners are not subject to this clause unless otherwise agreed in writing between Recipient and such customer or partner.
- (c) **Cost Sharing and/or Matching Efforts.** When the Recipient cost shares with the Government on the effort, the following paragraph applies:
- (1) In the event data first produced by Recipient in carrying out Recipient's responsibilities under an agreement is furnished to NASA, and Recipient considers such data to embody trade secrets or to comprise commercial or financial information which is privileged or confidential, and such data is so identified with a suitable notice or legend, the data will be maintained in confidence and disclosed and used by the Government and its Contractors (under suitable protective conditions) only for experimental, evaluation, research and development purposes, by or on behalf of the Government for an agreed to period of time, and thereafter for Federal purposes as defined in §

1260.30(b)(2) (paragraph (b)(2) of this Article).

(d) For Cooperative Agreements the following paragraph applies:

- (1) As to data first produced by NASA in carrying out NASA's responsibilities under a cooperative agreement and which data would embody trade secrets or would comprise commercial or financial information that is privileged or confidential if it has been obtained from the Recipient, such data will be marked with an appropriate legend and maintained in confidence for 5 years (unless a shorter period has been agreed to between the Government and Recipient) after development of the information, with the express understanding that during the aforesaid period such data may be disclosed and used (under suitable protective conditions) by or on behalf of the Government for Government purposes only, and thereafter for any purpose whatsoever without restriction on disclosure and use. Recipient agrees not to disclose such data to any third party without NASA's written approval until the aforementioned restricted period expires."

4.32 USE OF NASA NAME AND EMBLEMS

(a) NASA Name and Initials

Recipient shall not use "National Aeronautics and Space Administration" or "NASA" in a way that creates the impression that a product or service has the authorization, support, sponsorship, or endorsement of NASA, which does not, in fact, exist. Except for releases under the "Release of General Information to the Public and Media" clause, Recipient must submit any proposed public use of the NASA name or initials (including press releases and all promotional and advertising use) to the NASA Assistant Administrator for the Office of Communications or designee ("NASA Communications") for review and approval. Approval by NASA Communications shall be based on applicable law and policy governing the use of the NASA name and initials.

(b) NASA Emblems

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

(c) Release of General Information to the Public and Media

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

4.33 LISTING OF REPORTABLE EQUIPMENT AND OTHER PROPERTY (OCTOBER 2000) [1260.66]

- (a) Title to federally-owned property provided to the Recipient remains vested in the Federal Government, and shall be managed in accordance with § 1260.133. The following items of federally-owned property are being provided to the recipient for use in performance of the work under this grant or cooperative agreement:

Equipment (include part number)	Quantity	Flight/ Ground	Shared or Dedicated	Approximate duration of use	Responsible Provisioning Organization
KSC off-line laboratory required for pre-flight processing and on-orbit parallel ground operations.	1	Ground	Shared	To be documented in Ground Support Requirements Document	KSC/UB-R. Kuczajda
EXPRESS Payload Power Cable (P/N 683-44024*)	1	Flight	Shared	During Flight Operations (already onboard ISS)	EXPRESS Project Office/ NASA MSFC FP10
EXPRESS Payload Power Cable (P/N 683-44024)	1	Ground	Shared	During functional interface testing with the Payload Rack Checkout Unit (PRCU) (available at PRCU)	EXPRESS Project Office/ NASA MSFC FP10
EXPRESS Payload Data Cable (P/N 683-44267*)	1	Flight	Shared	During Flight Operations (already onboard ISS)	EXPRESS Project Office/ NASA MSFC FP10
EXPRESS Payload Data Cable (P/N 683-44267)	1	Ground	Shared	During functional interface testing with the Payload rack Checkout Unit (PRCU) (available at PRCU)	EXPRESS Project Office/ NASA MSFC FP10
EXPRESS Laptop (T61P)	1	Flight	Shared	For use during Osteo-4 operations (already on-board ISS)	EXPRESS Project Office
Wet Lab Kit Disposable Glove Bag (DGB) P/N SEG46122063 (glove size is to be determined) Clip Assembly P/N SEG46122124-301 Glove Bag Filter P/N SEG46122084-301	Max 3	1 Flight	Dedicated	Up to three activities within ISS operational timeframe (spanning ~ 30 days)	ISS National Laboratory Office/OZ4
Wet Lab Kit Disposable Glove	1	1 Ground	Dedicated	Ground unit for OPS checkout – 1	ISS National Laboratory

Bag (DGB) P/N SEG46122063 (glove size is to be determined)				mo.	Office/OZ4
Clip Assembly P/N SEG46122124-301					
Glove Bag Filter P/N SEG46122084-301					
Biocide Wipes P/N D35100 Absorbent Pad P/N STP-151	Qty >3	Flight	Dedicated	Up to three activities within ISS operational timeframe (spanning ~ 30 days)	ISS National Laboratory Office/OZ4
Support Frame Assembly; P/N SEG46122064-301	1	Flight	Dedicated	Re-use support frame for up to three activities within ISS operational timeframe (spanning ~ 30 days)	ISS National Laboratory Office/OZ4
Seat Track Strap; P/N SEG46122061- 301	2	Flight	Dedicated	Up to three activities within ISS operational timeframe (spanning ~ 30 days)	ISS National Laboratory Office/OZ4

- (b) The following specific items of equipment acquired by the Recipient have been identified by NASA for transfer of title to the Government when no longer required for performance under this grant or cooperative agreement. This equipment will be managed in accordance with § 1260.134, and shall be transferred to NASA or NASA's designee in accordance with the procedures set forth at § 1260.134(g):

Not applicable.

4.34 FEDERALLY OWNED AND EXEMPT PROPERTY [1260.133]

- (a) Federally owned property.

(1) Title to federally owned property remains vested in the Federal Government. Recipients shall submit annually an inventory listing of federally owned property in their custody to NASA. Upon completion of the award or when the property is no longer needed, the recipient shall report the property to NASA for further Federal agency utilization.

(2) If NASA has no further need for the property, it shall be declared **excess** and reported to

the General Services Administration, unless NASA has statutory authority to dispose of the property by alternative methods (e.g., the authority provided by the Federal Technology Transfer Act (15 U.S.C. 3710 (l)) to donate research equipment to educational and non profit organizations in accordance with Executive Order 12821, "Improving Mathematics and Science Education in Support of the National Education Goals.") Appropriate instructions shall be issued to the recipient by NASA.

- (b) Exempt property. Under the authority of the Childs Act, 31 U.S.C. 6301 to 6308, NASA has determined to vest title to property acquired with Federal funds in the recipient without further obligation to NASA, including reporting requirements.

4.35 EQUIPMENT [1260.134]

- (a) For grants and cooperative agreements for the purpose of research, NASA's policy is to vest title to property acquired with Federal funds in the recipient without further obligation to NASA, including reporting requirements, as set forth at § 1260.133(b). For grants and cooperative agreements for non-research purposes, and in the exceptional circumstance where a deviation is requested for a grant or cooperative agreement for research to not vest title in the recipient as exempt, equipment shall vest in the recipient subject to conditions of this section. These policies are not applicable to grants and cooperative agreements with commercial firms (see § 1260.74(b)(2) and § 1274.401.)
- (b) The recipient shall not use equipment acquired with Federal funds to provide services to non Federal outside organizations for a fee that is less than private companies charge for equivalent services, unless specifically authorized by Federal statute, for as long as the Federal Government retains an interest in the equipment.
- (c) The recipient shall use the equipment in the project or program for which it was acquired as long as needed, whether or not the project or program continues to be supported by Federal funds and shall not encumber the property without approval of NASA. When no longer needed for the original project or program, the recipient shall use the equipment in connection with its other federally sponsored activities, in the following order of priority:
 - (1) Activities sponsored by NASA, then
 - (2) Activities sponsored by other Federal agencies.
- (d) During the time that equipment is used on the project or program for which it was acquired, the recipient shall make it available for use on other projects or programs if such other use will not interfere with the work on the project or program for which the equipment was originally acquired. First preference for such other use shall be given to other projects or programs sponsored by NASA; second preference shall be given to projects or programs sponsored by other Federal agencies. If the equipment is owned by the Federal Government, use on other activities not sponsored by the Federal Government shall be permissible if authorized by NASA. User charges shall be treated as program income.
- (e) When acquiring replacement equipment, the recipient may use the equipment to be replaced as trade in or sell the equipment and use the proceeds to offset the costs of the replacement equipment subject to the approval of NASA.
- (f) The recipient's property management standards for equipment acquired with Federal funds and federally owned equipment shall include all of the following:

- (1) Equipment records shall be maintained accurately and shall include the following information.
 - (i) A description of the equipment.
 - (ii) Manufacturer's serial number, model number, Federal stock number, national stock number, or other identification number.
 - (iii) Source of the equipment, including the award number.
 - (iv) Whether title vests in the recipient or the Federal Government.
 - (v) Acquisition date (or date received, if the equipment was furnished by the Federal Government) and cost.
 - (vi) Information from which one can calculate the percentage of Federal participation in the cost of the equipment (not applicable to equipment furnished by the Federal Government).
 - (vii) Location and condition of the equipment and the date the information was reported.
 - (viii) Unit acquisition cost.
 - (ix) Ultimate disposition data, including date of disposal and sales price or the method used to determine current fair market value where a recipient compensates NASA for its share.
- (2) Equipment owned by the Federal Government shall be identified to indicate Federal ownership.
- (3) A physical inventory of equipment shall be taken and the results reconciled with the equipment records at least once every two years. Any differences between quantities determined by the physical inspection and those shown in the accounting records shall be investigated to determine the causes of the difference. The recipient shall, in connection with the inventory, verify the existence, current utilization, and continued need for the equipment.
- (4) A control system shall be in effect to insure adequate safeguards to prevent loss, damage, or theft of the equipment. Any loss, damage, or theft of equipment shall be investigated and fully documented; if the equipment was owned by the Federal Government, the recipient shall promptly notify NASA.
- (5) Adequate maintenance procedures shall be implemented to keep the equipment in good condition.
- (6) Where the recipient is authorized or required to sell the equipment, proper sales procedures shall be established which provide for competition to the extent practicable and result in the highest possible return.
- (g) When the recipient no longer needs the equipment, the equipment may be used for other activities in accordance with the following standards. For equipment with a current per unit fair market value of \$5,000 or more, the recipient may retain the equipment for other uses provided that compensation is made to the original Federal awarding agency or its successor. The amount of compensation shall be computed by applying the percentage of Federal participation in the cost of the original project or program to the current fair market value of the equipment. If the recipient has no need for the equipment, the recipient shall request disposition instructions from NASA. NASA shall determine whether the equipment can be used to meet NASA's requirements. If no requirement exists within NASA, the availability of the equipment shall be reported to the General Services Administration by NASA to determine whether a requirement for the equipment exists in other Federal agencies. NASA shall issue instructions to the recipient no later than 120 calendar days after the recipient's request and the following procedures shall govern.
 - (1) If so instructed or if disposition instructions are not issued within 120 calendar days after

the recipient's request, the recipient shall sell the equipment and reimburse NASA an amount computed by applying to the sales proceeds the percentage of Federal participation in the cost of the original project or program. However, the recipient shall be permitted to deduct and retain from the Federal share \$500 or ten percent of the proceeds, whichever is less, for the recipient's selling and handling expenses.

- (2) If the recipient is instructed to ship the equipment elsewhere, the recipient shall be reimbursed by the Federal Government by an amount which is computed by applying the percentage of the recipient's participation in the cost of the original project or program to the current fair market value of the equipment, plus any reasonable shipping or interim storage costs incurred.
- (3) If the recipient is instructed to otherwise dispose of the equipment, the recipient shall be reimbursed by NASA for such costs incurred in its disposition.
- (4) NASA may reserve the right to transfer the title to the Federal Government or to a third party named by NASA when such third party is otherwise eligible under existing statutes. Such transfer shall be subject to the following standards.
 - (i) The equipment shall be appropriately identified in the award or otherwise made known to the recipient in writing.
 - (ii) NASA shall issue disposition instructions within 120 calendar days after receipt of a final inventory. The final inventory shall list all equipment acquired with grant funds and federally owned equipment. If NASA fails to issue disposition instructions within the 120 calendar day period, the recipient shall apply the standards of this section, as appropriate.

When NASA exercises its right to take title, the equipment shall be subject to the provisions for federally owned equipment.

4.36 SENSITIVE INFORMATION

The following two clauses concerning access to and release of sensitive information shall apply to the Cooperative Agreement. Where appropriate to effectuate the intent of these clauses, the term "contractor" shall mean "Recipient," the term "contract" shall mean "Cooperative Agreement," the term "Contracting Officer" shall mean "Grants Officer," and the term "subcontract" shall mean "subcontract or sub-award."

4.36-A. ACCESS TO SENSITIVE INFORMATION (JUNE 2005)

- (a) As used in this clause, "sensitive information" refers to information that a contractor has developed at private expense, or that the Government has generated that qualifies for an exception to the Freedom of Information Act, which is not currently in the public domain, and which may embody trade secrets or commercial or financial information, and which may be sensitive or privileged.
- (b) To assist NASA in accomplishing management activities and administrative functions, the Contractor shall provide the services specified elsewhere in this contract.
- (c) If performing this contract entails access to sensitive information, as defined above, the Contractor agrees to –
 - (1) Utilize any sensitive information coming into its possession only for the purposes of performing the services specified in this contract, and not to improve its own competitive position in another procurement.

- (2) Safeguard sensitive information coming into its possession from unauthorized use and disclosure.
 - (3) Allow access to sensitive information only to those employees that need it to perform services under this contract.
 - (4) Preclude access and disclosure of sensitive information to persons and entities outside of the Contractor's organization.
 - (5) Train employees who may require access to sensitive information about their obligations to utilize it only to perform the services specified in this contract and to safeguard it from unauthorized use and disclosure.
 - (6) Obtain a written affirmation from each employee that he/she has received and will comply with training on the authorized uses and mandatory protections of sensitive information needed in performing this contract.
 - (7) Administer a monitoring process to ensure that employees comply with all reasonable security procedures, report any breaches to the Contracting Officer, and implement any necessary corrective actions.
- (d) The Contractor will comply with all procedures and obligations specified in its Organizational Conflicts of Interest Avoidance Plan, which this contract incorporates as a compliance document.
- (e) The nature of the work on this contract may subject the Contractor and its employees to a variety of laws and regulations relating to ethics, conflicts of interest, corruption, and other criminal or civil matters relating to the award and administration of government contracts. Recognizing that this contract establishes a high standard of accountability and trust, the Government will carefully review the Contractor's performance in relation to the mandates and restrictions found in these laws and regulations. Unauthorized uses or disclosures of sensitive information may result in termination of this contract for default, or in debarment of the Contractor for serious misconduct affecting present responsibility as a government contractor.
- (f) The Contractor shall include the substance of this clause, including this paragraph (f), suitably modified to reflect the relationship of the parties, in all subcontracts that may involve access to sensitive information

4.36-B. RELEASE OF SENSITIVE INFORMATION (JUNE 2005)

- (a) As used in this clause, "sensitive information" refers to information, not currently in the public domain, that the Contractor has developed at private expense, that may embody trade secrets or commercial or financial information, and that may be sensitive or privileged.
- (b) In accomplishing management activities and administrative functions, NASA relies heavily on the support of various service providers. To support NASA activities and functions, these service providers, as well as their subcontractors and their individual employees, may need access to sensitive information submitted by the Contractor under this contract. By submitting this proposal or performing this contract, the Contractor agrees that NASA may

release to its service providers, their subcontractors, and their individual employees, sensitive information submitted during the course of this procurement, subject to the enumerated protections mandated by the clause at 1852.237-72, Access to Sensitive Information.

- (c)(1) The Contractor shall identify any sensitive information submitted in support of this proposal or in performing this contract. For purposes of identifying sensitive information, the Contractor may, in addition to any other notice or legend otherwise required, use a notice similar to the following:

Mark the title page with the following legend:

This proposal or document includes sensitive information that NASA shall not disclose outside the Agency and its service providers that support management activities and administrative functions. To gain access to this sensitive information, a service provider's contract must contain the clause at NFS 1852.237-72, Access to Sensitive Information. Consistent with this clause, the service provider shall not duplicate, use, or disclose the information in whole or in part for any purpose other than to perform the services specified in its contract. This restriction does not limit the Government's right to use this information if it is obtained from another source without restriction. The information subject to this restriction is contained in pages [insert page numbers or other identification of pages].

Mark each page of sensitive information the Contractor wishes to restrict with the following legend:

Use or disclosure of sensitive information contained on this page is subject to the restriction on the title page of this proposal or document.

- (2) The Contracting Officer shall evaluate the facts supporting any claim that particular information is "sensitive." This evaluation shall consider the time and resources necessary to protect the information in accordance with the detailed safeguards mandated by the clause at 1852.237-72, Access to Sensitive Information. However, unless the Contracting Officer decides, with the advice of Center counsel, that reasonable grounds exist to challenge the Contractor's claim that particular information is sensitive, NASA and its service providers and their employees shall comply with all of the safeguards contained in paragraph (d) of this clause.
- (d) To receive access to sensitive information needed to assist NASA in accomplishing management activities and administrative functions, the service provider must be operating under a contract that contains the clause at 1852.237-72, Access to Sensitive Information. This clause obligates the service provider to do the following:
- (1) Comply with all specified procedures and obligations, including the Organizational Conflicts of Interest Avoidance Plan, which the contract has incorporated as a compliance document.
 - (2) Utilize any sensitive information coming into its possession only for the purpose of performing the services specified in its contract.
 - (3) Safeguard sensitive information coming into its possession from unauthorized use and

disclosure.

- (4) Allow access to sensitive information only to those employees that need it to perform services under its contract.
 - (5) Preclude access and disclosure of sensitive information to persons and entities outside of the service provider's organization.
 - (6) Train employees who may require access to sensitive information about their obligations to utilize it only to perform the services specified in its contract and to safeguard it from unauthorized use and disclosure.
 - (7) Obtain a written affirmation from each employee that he/she has received and will comply with training on the authorized uses and mandatory protections of sensitive information needed in performing this contract.
 - (8) Administer a monitoring process to ensure that employees comply with all reasonable security procedures, report any breaches to the Contracting Officer, and implement any necessary corrective actions.
- (e) When the service provider will have primary responsibility for operating an information technology system for NASA that contains sensitive information, the service provider's contract shall include the clause at 1852.204-76, Security Requirements for Unclassified Information Technology Resources. The Security Requirements clause requires the service provider to implement an Information Technology Security Plan to protect information processed, stored, or transmitted from unauthorized access, alteration, disclosure, or use. Service provider personnel requiring privileged access or limited privileged access to these information technology systems are subject to screening using the standard National Agency Check (NAC) forms appropriate to the level of risk for adverse impact to NASA missions. The Contracting Officer may allow the service provider to conduct its own screening, provided the service provider employs substantially equivalent screening procedures.
- (f) This clause does not affect NASA's responsibilities under the Freedom of Information Act.
- (g) The Contractor shall insert this clause, including this paragraph (g), suitably modified to reflect the relationship of the parties, in all subcontracts that may require the furnishing of sensitive information.

ATTACHMENT 1 REPORTING REQUIREMENTS

A. PROGRAM SCIENCE INPUTS

Throughout the term of the Agreement, the Recipient shall share research data with the ISS Program Science Office.

B. RESEARCH PLAN INPUTS

Research Plan inputs shall be developed per the process defined in SSP 50795 rev A on the schedule as defined by the Research Planning Working Group in which CASIS shall participate.

C. EDUCATION REPORTING

CASIS will support utilization of ISS NL and associated space-based assets to promote educational and STEM activities. CASIS will track the impact of educational efforts on educators/other professionals, student participation and outreach, taking into account conventional metrics (numbers inspired, numbers engaged, education improved by CASIS efforts, development and distribution of educational materials, and partnerships with other educational and STEM organizations). To facilitate education and outreach initiatives, CASIS may employ activities such as student competitions, workshops, after-school events, museum programs, and development of classroom content and curricula.

D. QUARTERLY REPORT

The Recipient shall submit a brief electronic quarterly report (government fiscal quarter). Copies shall be submitted to the CATO, the Agreement Administration Office, and the Grants Officer. The report shall contain three (3) major sections:

1. **Technical Status Report.** The technical status report will detail technical progress to date on the APP, including all problems, technical issues, or major developments during the reporting period.
2. **Performance Metrics Status Report.** The performance metrics status report will detail progress to date on performance metrics for the quarter.
3. **Business Status Report.** The business status report will provide summarized details of the resource status of this Agreement. This report should compare the resource payment, expenditures, and status with the current Annual Budget. Cost should be shown by budget element for the current quarter and for the cumulative total per year. Cost should be shown for the elements identified under "F. ANNUAL BUDGET" below. Any major deviations shall be explained along with discussion of adjustment actions proposed.

E. ANNUAL PROGRAM PLAN

CASIS will prepare an Annual Program Plan (APP), which will meet the requirements of the Progress Report defined in Section 4.4(b)(1) of this Cooperative Agreement. The APP will provide a detailed plan of CASIS' proposed activities for the following year and shall require CASIS to use its best efforts to meet the objectives of this Cooperative Agreement, subject to the availability of funding.

The initial APP shall cover activities for both FY2011 and FY012. This APP shall include the first year's performance metrics and shall be based on the Recipient's budget to be submitted

by the Recipient within 60 days after award. The APP will describe the anticipated membership structure, fee schedule, and membership benefits, programs, and rules. It will also provide a description of the anticipated proposal selection and prioritization process to ensure that a fair, transparent and impartial selection process is utilized for maximizing value to the Nation including the anticipated review factors.

Throughout the term of the Agreement, the Recipient shall submit an electronic APP. Prior to the submission of the APP, a review of the proposed APP will be conducted with the CATO. The APP will describe technical progress and accomplishments for the prior year in all areas of the APP. The APP will also describe the anticipated technical progress and accomplishments for the upcoming year.

F. ANNUAL BUDGET

The initial Annual Budget shall cover activities for both FY2011 and FY2012. This Annual Budget shall be submitted by the Recipient within 60 days after award. Beginning with FY2013 as a part of the preparation of the APP, the Recipient shall submit a copy of the annual budget to the Grants Officer, the Agreement Administrator, and the CATO by September 15 of each year. The annual budget shall contain cost estimates sufficiently detailed for meaningful evaluation. Budgets must be presented for the cost elements identified below:

1. Direct labor costs associated with the cooperative agreement effort.
2. An itemized list of permanent equipment to be acquired showing the cost of each item. Permanent equipment is any article of nonexpendable tangible personal property having a useful life of more than two years, and an acquisition cost of \$5,000 or more per unit.
3. A general description and total estimated cost of expendable equipment and supplies.
4. The total estimated cost for travel and a general description of contemplated travel (purpose of travel, destination, and number of trips). Identify travel and transportation costs associated with staff rotation, if any.
5. Subcontract costs. For Subcontracts totaling more than the simplified acquisition threshold per year, provide the following information:
 - (a) If known, the identity of the subcontractor and (except for subcontractors identified in the referenced proposal) an explanation of why and how the subcontractor was selected or will be selected.
 - (b) Whether or not the award will be competitive and, if noncompetitive, rationale to justify the absence of competition.
 - (c) The proposed acquisition price in sufficient detail to allow for meaningful evaluation.
6. Other direct costs (e.g., publications, computer costs, and insurance).
7. The expected total amount of grants to be awarded.
8. Indirect costs (if any) indicating whether rates used are fixed or provisional and the time frames to which they are applicable (e.g., a fixed rate may apply until a specified date, after

which the rate becomes provisional).

9. Funding from other sources.

G. FINAL REPORT

1. The Recipient shall submit a Final Report making full disclosure of all major technical developments by the Recipient within sixty (60) calendar days of completion or termination of this Agreement. The Final Report shall contain a final accounting of all Federal funds expended during the term of the Agreement. With the approval of the CATO, reprints of published articles may be attached to the Final Report. An original plus (1) copy shall be submitted to the CATO with copies to the Agreement Administrator.
2. The Recipient shall make distribution of the Final Report as follows: CATO - 1 original plus 1 copy; Agreement Administration Office - 1 copy, and the Grants Officer - 1 copy.
3. The Final Report shall be marked with a distribution statement to denote the extent of its availability for further distribution, release, and disclosure with additional approvals or authorizations.

H. REPORT AND BUDGET FORMAT

All reports and the annual budget may be submitted electronically.

ATTACHMENT 2 ORGANIZATIONAL CONFLICT OF INTEREST MITIGATION PLAN

This Plan is designed to ensure that the selection and prioritization of projects and grant awards relating to the ISS NL occurs through fact-based, impartial processes.

I. Identification of Potential Organizational Conflicts of Interest

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

- A. Board of Directors. CASIS may have Board members who are affiliated with entities that seek to use the ISS NL, receive grant funding from CASIS, or otherwise have a financial interest in a user of the ISS NL. As a result of these affiliations, Board members may have, or appear to have, conflicts of interest.
- B. Advisory Boards. CASIS shall identify respected members of the scientific, technological, and other communities with expertise in relevant scientific and other disciplines to serve as a "Science and Technology Advisory Panel" and potentially other Advisory Panels or Boards (collectively referred to herein as "Advisory Boards"). Among other things, members of these Advisory Boards will be eligible to serve as members of Project Selection Panel ("PSPs") that will have the responsibility for making recommendations to the Executive Director and other CASIS senior staff regarding selection and prioritization. Advisory Board members may be affiliated with entities that seek to use the ISS NL, receive grant funding from CASIS, or otherwise have a financial interest in a user of the ISS NL. As a result of these affiliations, Advisory Board members may have, or appear to have, conflicts of interest.
- C. CASIS Subcontractors. CASIS may have subcontractors that may have an organizational conflict because of the subcontractors' use of the ISS NL, receipt of grant funding from CASIS, or financial interest in a user of the ISS NL or CASIS grant recipient. In particular, CASIS may hire a subcontractor to provide needed technical or scientific expertise to a PSP or in support of the preparation of a grant solicitation.
- D. CASIS Staff and Donors. CASIS may have staff or donors who are affiliated with entities that seek to use the ISS NL, receive grant funding from CASIS, or otherwise have a financial interest in a user of the ISS NL. As a result of these affiliations, CASIS staff or donors may have, or appear to have, conflicts of interest.

II. Mitigation of Potential OCIs

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

- A. Exercise of Subjective Judgment. The principal areas in which CASIS will exercise subjective judgment in connection with the Cooperative Agreement are

the preparation of grant solicitations and the selection and prioritization of research projects and grant awards related to the ISS NL.

- B. Preventing Potential Bias in Preparation of Grant Solicitations. CASIS staff personnel may be involved in the process of preparing grant solicitations. In order to mitigate the potential for any potential bias or other conflict of interest, the CASIS Director of Administration will ensure that any staff personnel involved in such drafting are free of any potential conflicts of interest. Before participating in any such preparation, CASIS staff must disclose, in writing, all affiliations with any entities that might have an interest in the grant solicitation and all other potential conflicts of interest. CASIS staff must also supplement this disclosure as changes in actual or potential conflicts occur. If such a conflict or potential conflict exists, the CASIS Director of Administration will firewall the individual from any involvement in the drafting process and forbid the individual from communicating with CASIS staff personnel or subcontractors involved in drafting the grant solicitation.

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

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

When decisions concerning selection or prioritization of payloads for a flight to the ISS NL or decisions concerning grant funding are to be made, CASIS staff (under the direction of the CASIS Executive Director) will select appropriate individuals to serve on a PSP through a process that includes screening for potential OCIs. At the outset of a PSP selection, CASIS staff will evaluate the disclosed conflicts of interest of potential PSP members and will ensure that a conflicted individual will not be selected to serve as a member of a PSP. This PSP screening would apply to all PSP members regardless of an individual's status within CASIS or affiliation with a donor. CASIS Board members will not be eligible to serve on a PSP. All PSP

members will comply with section 4.28 (Preventing Personal Conflicts of Interest) of the Cooperative Agreement. In the event that CASIS is unable to identify a PSP member with the necessary expertise who is free of an OCI, the potential PSP member will remain eligible to serve if (1) a firewall exists between that person and the conflicted entity, and (2) CASIS follows the recusal procedures in the following paragraph.

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

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

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

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

- F. **Firewall to Prevent Improper Influence.** Non-public information involving the selection process or prioritization decisions will be "firewalled." The CASIS Director of Administration will be charged with ensuring that only PSP members, CASIS employees and others involved in selection and prioritization have access to non-public information. PSP members and subcontractors providing support to the PSP will be required to sign

confidentiality agreements in which they will agree not to disclose or discuss any information regarding the selection process with non-PSP members. This firewall shall prevent any persons and entities that might have an interest in the ISS NL from influencing the process and, thus, should preclude a conflict from occurring. If CASIS determines that a PSP member has disclosed or discussed such information regarding selection or prioritization with non-PSP members, the member shall immediately be dismissed from all PSPs and any Advisory Board, and shall not participate in any future CASIS selection or prioritization recommendations.

No CASIS employee, Board member, or officer shall attempt to improperly influence the decision making process. The PSP members, Executive Director, senior Scientific and Economic staff, and subcontractors providing support to the PSP will be instructed that they should not consider any factor in making selection or prioritization recommendations or decisions other than the criteria specified by CASIS.

In the event that a project or application is submitted by a person who has made or pledged a donation to CASIS, the PSP that considers the project or application shall consist of Advisory Board members or subcontractors that do not have access to information about the donation or pledge, not any member of the CASIS staff. The Executive Director and senior Scientific and Economic staff involved in the decision making shall be instructed that they should not consider the donation or pledge in their decision making.

CASIS Directors and officers will be required to review the OCI policy, and sign an OCI agreement. All CASIS employees will receive training regarding the OCI policy and will be required to sign an OCI agreement.

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

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

III. Administrative Provisions

- A. Reporting. The CASIS Director of Administration will report any OCIs to the Board in writing at its regular meetings. Each report shall include (1) a description of the conflict, and (2) the method by which the conflict was resolved.
- B. Revisions. The CASIS Director of Administration will review the OCI Mitigation Plan at least annually to address specific OCIs and to determine if there are new or unaddressed OCIs. Any revisions must be approved by the NASA CATO and incorporated into the Cooperative Agreement.
- C. Business Intake. The CASIS Director of Administration will be responsible for screening new opportunities and contracts for actual and potential OCIs. Upon identifying an OCI, steps will be taken, under direction of the Executive Director, to ensure that the member, contractor, or other entity is subject to the OCI mitigation plan.
- D. Flow Down. When the possibility of an OCI exists, CASIS will ensure that OCI prevention and mitigation requirements flow down to affected subcontractors at any tier. Subcontractors will be required to analyze and identify any potential OCIs and deliver a plan to resolve such conflicts to CASIS. CASIS will seek to avoid entering into agreements with subcontractors at any tier with potential or actual conflicts of interest.
- E. Training. All CASIS personnel are required to participate in a training program on the objectives, elements, and importance of the OCI Mitigation Plan. All new personnel shall be trained on the requirements of the Plan within two weeks of employment and every year thereafter. Personnel will receive training materials and be required to sign a statement confirming their understanding of the responsibilities and restrictions they assume under the Plan. This form will be kept in each employee's personnel file. All employees will also be required to participate in an exit interview and sign an exit interview acknowledgement.
- F. Organizational and Employee Sanctions. Employees will be informed that any OCI policy violation may result in termination, and Board members will be informed that any OCI policy violation may be cause for removal. CASIS members who violate the OCI policy or engage in any improper attempt to influence the PSP, the Executive Director, or senior Scientific and Economic staff, may have their membership agreement terminated. Subcontractors may be terminated based on any violation of the OCI policy or any improper attempt to influence the PSP, the Executive Director, or senior Scientific and Economic staff, or the drafting of a grant solicitation.
- G. Self-Audits. The CASIS Director of Administration will conduct an annual audit verifying adherence to the OCI Mitigation Plan. The Director of Administration shall ensure that such audit is conducted by an independent organization. Audit team members will review records, interview program personnel, examine physical controls, review employee inputs, and take other steps as

deemed necessary. CASIS will require all employees to affirm annually their compliance with the OCI policy and mitigation plan. Audit findings will be documented and made available to the CATO upon request. Upon completion of the annual audit, a certification of compliance will be signed annually, for as long as the Plan is in existence, by the CASIS Director of Administration.

H. Records. CASIS will maintain records relating to this OCI Mitigation Plan for review by NASA upon request. These records will include the following:

1. CASIS Reports of OCIs
2. All contracts and subcontracts with OCI provisions
3. Records reflecting employee training and certifications
4. Any sanctions or other actions taken with respect to employees, contractors or others as a result of OCI violations
5. The results of all self-audits
6. All OCI certifications

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
NNH11CD70A/000013

PAGE 2 OF 3

NAME OF OFFEROR OR CONTRACTOR

CENTER FOR THE ADVANCEMENT OF SCIENCE IN SPACE, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
013	Accounting Info: 10CR000/6100.2550/10/FC000000/904211.01.03.01/000/ 2550/10/EXCX22015D/733B/8015/160115/1/2 Cost Center: 10CR000 GL Account: 6100.2550 Order: FC000000 WBS Element1: 904211.01.03.01 Item Number: 000 Commitment Item: 2550 Funds Center: 10 Fund: EXCX22015D Functional Area: 733B Appropriation: 8015/160115 CASIS Obligated Amount: \$15,000,000.00				15,000,000.00

1. 4.20 INCREMENTAL FUNDING (OCTOBER 2000) [1260.53] is updated as follows:

4.20 INCREMENTAL FUNDING (OCTOBER 2000) [1260.53]

(a) Only **\$65,950,000** of the amount indicated on the face of this award is available for payment and allotted to this award. NASA contemplates making additional allotments of funding during performance of this effort. It is anticipated that these funds will be obligated as appropriated funds become available without any action required by the Recipient. The Recipient will be given written notification by the NASA Grants Officer.

Funding is allocated as follows:

FY 11 - \$3,750,000
FY 12 - \$15,000,000
FY 13 - \$15,000,000
FY 14 - \$15,000,000
FY 15 - \$15,000,000
FY 16 - \$2,200,000

(b) The Recipient agrees to perform work up to the point at which the total amount paid or payable by the Government approximates but does not exceed the total amount actually allotted to this grant or cooperative agreement. NASA is not obligated to reimburse the Recipient for the expenditure of amounts in excess of the total funds allotted by NASA to this grant or cooperative agreement. The Recipient is not authorized to continue performance beyond the amount allotted to this award.

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AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 3	
2. AMENDMENT/MODIFICATION NO. 000014		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
5. ISSUED BY NASA/Goddard Space Flight Center Headquarters Procurement Office Greenbelt MD 20771		6. CODE HQ		5. PROJECT NO. (If applicable)	
7. ADMINISTERED BY (If other than Item 6) NASA/Goddard Space Flight Center Headquarters Procurement Office Greenbelt MD 20771		CODE HQ			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) CENTER FOR THE ADVANCEMENT OF SCIENCE IN SPACE, INC. MS.CASIS, BLDG M6-1025, RM 308-123 KENNEDY SPACE CENTER FL 32899-0001		(x) 9A. AMENDMENT OF SOLICITATION NO.			
		9B. DATED (SEE ITEM 11)			
		x 10A. MODIFICATION OF CONTRACT/ORDER NO. NNH11CD70A			
		10B. DATED (SEE ITEM 13) 08/31/2011			
CODE 6BSZ4		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

- ☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
- Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) Mutual Agreement of the Parties



E. IMPORTANT: Contractor ☐ is not. ☒ is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to revise clause 4.33 - Listing of Reportable Equipment and Other Property. The clause is revised and replaced as follows:

Accordingly, see the following pages:

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Jorge Fernandez Chief Financial Officer		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Amanda Heslop	
15B. CONTRACTING OFFICER 	15C. DATE SIGNED 9/17/2015	16B. UNITED STATES OF AMERICA 	16C. DATE SIGNED SEP 17 2015

NSN 7540-01-152-8070
Previous edition unusable

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

Clause 4.33 is hereby revised and replaced with the following:

4.33 LISTING OF REPORTABLE EQUIPMENT AND OTHER PROPERTY (OCTOBER 2000) [1260.66]

- (a) Title to federally-owned property provided to the Recipient remains vested in the Federal Government, and shall be managed in accordance with § 1260.133. The following items of federally-owned property are being provided to the recipient for use in performance of the work under this grant or cooperative agreement:

Equipment (include part number)	Quantity	Flight/Ground	Shared or Dedicated	Approximate duration Of Use	Responsible Provisioning Organization
Laptop Computer Assembly - IBM T61p (Class III)	3	Flight	Shared	During Flight Operations (already on board)	Express Project Office
Ultra Bay Slim Adapter	1	Ground	Dedicated	For Testing	Express Project Office
Input Power Cable 28 VDC ISS Inverter - S/N: 1001 (Class III)	1	Ground	Dedicated	For Testing	Express Project Office
28 VDC to 120 VAC Inverter - S/N: 1012; Class III	1	Ground	Dedicated	For Testing	Express Project Office
Thinkpad T61P- S/N: LK-ACHPX	1	Ground	Dedicated	For Testing	Express Project Office
EXPRESS Payload Power Connector	2	Ground	Dedicated	For Testing	Express Project Office
EXPRESS Payload Data Connector	2	Ground	Dedicated	For Testing	Express Project Office
AC ADAPTER T61P- S/N: ZBTZ783068	1	Ground	Dedicated	For Testing	Express Project Office
ISS Single Stowage Locker- S/N: 1052	1	Flight	Dedicated	Experiment Duration	Vehicle Office
ISS Single Stowage Locker- S/N: 1056	1	Flight	Dedicated	Experiment Duration	Vehicle Office
Radiation Area Monitor (RAM) Assembly	4	Flight	Dedicated	Experiment Duration	Human Space Flight Operations Branch
AC Adapter, T61P	1	Ground	Dedicated	For Testing	Express Project Office
Thinkpad T61P, Lenovo	1	Ground	Dedicated	For Testing	Express Project Office
ISIS Drawer	1	Flight	Dedicated	Indefinite	Vehicle Office

- (b) The following specific items of equipment acquired by the Recipient have been identified by NASA for transfer of title to the Government when no longer required for performance under this grant or cooperative agreement. This equipment will be managed in accordance with § 1260.134, and shall be transferred to NASA or NASA's designee in accordance with the procedures set forth at § 1260.134(g):

Not applicable.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 3	
2. AMENDMENT/MODIFICATION NO. 000015		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. 4200580696	
5. PROJECT NO. (If applicable)		6. ISSUED BY NASA/Goddard Space Flight Center Headquarters Procurement Office Greenbelt MD 20771		7. ADMINISTERED BY (If other than Item 6) NASA/Goddard Space Flight Center Headquarters Procurement Office Greenbelt MD 20771	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) CENTER FOR THE ADVANCEMENT OF SCIENCE IN SPACE, INC. MS.CASIS, BLDG M6-1025, RM 308-123 KENNEDY SPACE CENTER FL 32899-0001		9A. AMENDMENT OF SOLICITATION NO. (x)		9B. DATED (SEE ITEM 11)	
CODE 6BSZ4 FACILITY CODE		10A. MODIFICATION OF CONTRACT/ORDER NO. NNH11CD70A		10B. DATED (SEE ITEM 13) 08/31/2011	
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule Net Increase: \$15,000,000.00					
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.					
CHECK ONE					
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).					
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:					
D. OTHER (Specify type of modification and authority)					
X 4.19 MULTIPLE YEAR GRANT OR COOPERATIVE AGREEMENT (OCTOBER 2000) [1260.52]					
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not. <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)					

The purpose of this modification is to provide funding for the Government's contribution for FY 16 in the amount of \$12,800,000 and FY 17 in the amount of \$2,200,000. The total funding and value of this Cooperative Agreement are revised as follows:

From: \$65,950,000 By: \$15,000,000 To: \$80,950,000

Accordingly, see the following page:

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Amanda J. Heslop	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA Amanda J. Heslop (Signature of Contracting Officer)	16C. DATE SIGNED 03/17/2016

NSN 7540-01-152-8070
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CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
NNH11CD70A/000015

PAGE 2 OF 3

NAME OF OFFEROR OR CONTRACTOR

CENTER FOR THE ADVANCEMENT OF SCIENCE IN SPACE, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
014	<p>Accounting Info: 10CR000/6100.2550/10/FC0000000/659813.01.01/000/255 0/10/EXCX22016D/733B/8016/170115/1/2 Cost Center: 10CR000 GL Account: 6100.2550 Order: FC000000 WBS Element1: 659813.01.01 Item Number: 000 Commitment Item: 2550 Funds Center: 10 Fund: EXCX22016D Functional Area: 733B Appropriation: 3016/170115</p> <p>CASIS Obligated Amount: \$15,000,000.00</p>				15,000,000.00

1. 4.20 INCREMENTAL FUNDING (OCTOBER 2000) [1260.53] is updated as follows:

4.20 INCREMENTAL FUNDING (OCTOBER 2000) [1260.53]

(a) Only **\$80,950,000** of the amount indicated on the face of this award is available for payment and allotted to this award. NASA contemplates making additional allotments of funding during performance of this effort. It is anticipated that these funds will be obligated as appropriated funds become available without any action required by the Recipient. The Recipient will be given written notification by the NASA Grants Officer.

Funding is allocated as follows:

FY 11 - \$3,750,000
FY 12 - \$15,000,000
FY 13 - \$15,000,000
FY 14 - \$15,000,000
FY 15 - \$15,000,000
FY 16 - \$15,000,000
FY 17 - \$2,200,000

(b) The Recipient agrees to perform work up to the point at which the total amount paid or payable by the Government approximates but does not exceed the total amount actually allotted to this grant or cooperative agreement. NASA is not obligated to reimburse the Recipient for the expenditure of amounts in excess of the total funds allotted by NASA to this grant or cooperative agreement. The Recipient is not authorized to continue performance beyond the amount allotted to this award.