

Contract: Hydrospheric and Biospheric Sciences Support Services (HBS) Contract Num: NNG15HQ01C Period: 12/01/2014 - 11/30/2019

Task Num/Mod Num: 6050/4 (Technical) Title: Earth Imager Calibration Support Task Period: 02/01/2015 - 01/31/2019

Parent Task Lower Subtasks: 0

Task Type: Code 600 Flight: Non-Flight Process Stage: Fully_Awarded Process Date: 03/07/2018 Awarded To: Science Systems and Application Inc (SSAI)

Current Mod. Est. Cost: (b)(4) Current Mod Max Fee: (b)(4) Current Mod Cost (Mod Est Cost + Mod Max Fee): \$162,733.00

Total Estimated Cost: (b)(4) Total Maximum Fee: (b)(4) Task Order Total Cost (Total Est Cost + Total Max Fee): \$639,008.00

Task Monitor (TM)	Date	Org Code	Phone
KURTIS J THOME	02/27/2018 02:01 PM	6180	301.614.6671
Project Resource Analyst KURTIS J THOME			
RONNETTE M BARNES	03/01/2018 02:05 PM	6030	301.614.5925
Branch Head RONNETTE M BARNES			
Jeffrey Masek	02/20/2018 11:55 AM	6180	301.614.6629
Contract Resource Analyst Jeffrey Masek			
Lisa M Grochola	03/01/2018 02:05 PM	6030	301.286.5072
Contracting Officer Technical Rep. (COR) RONNETTE M BARNES			
John R Moisan	03/01/2018 03:05 PM	610W	(757)824-1312
Contract Specialist (CSp) John R Moisan			
Alonda L Woodley	03/05/2018 01:04 PM	210Y	301.286.5075
Contracting Officer (CO) Ian P Sherry			
DARLENE D HARKINS	03/07/2018 12:05 PM	210Y	301.286.4764
DARLENE D HARKINS			

Gov. Cost Estimate: [REDACTED] | Cost Estimate File Work Performed On-Site: All

Attached: Yes Funding Information: 921266.04.12.01.14(SCEX22018D) Government Furnished Property/Facilities: No

Task Background Attached: No Capital Asset Item: No

Contractor will develop specification or statement of work under this task for a future procurement: No

Deliver To: KURTIS J THOME, Code 618.0, Bldg 033, Room G320

**NASA/GODDARD SPACE FLIGHT CENTER
REQUEST FOR TASK PLAN / TASK ORDER**

CONTRACTOR	CONTRACT #	TASK #	REVISION #	JOB ORDER #	APPROP. FY
		6050			

TASK TITLE: (NTE 80 Characters; Include Project Name)
SI-Traceable Calibration of Earth Imaging Sensors

APPROVALS: (Type or print name and sign)

ASSISTANT TECHNICAL REPRESENTATIVE (OR TASK MONITOR)	DATE	ORG CODE	PHONE
Kurtis Thome			
BRANCH HEAD	DATE	ORG CODE	PHONE
Jeff Masek			
RESOURCE ANALYST	DATE	ORG CODE	PHONE
Ronnette Barnes			
CONTRACTING OFFICER'S REPRESENTATIVE (COTR)	DATE	ORG CODE	PHONE
John Moisan			

FLIGHT HARDWARE, CRITICAL GSE OR SOFTWARE? (IF YES, NEED CODE 303 CONCURRENCE NEXT BLOCK) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	CODE CONTRACTING OFFICER'S QUALITY REP.	DESIGNATED FAM:
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Contractor will develop specification or statement of work under this task for a future procurement. NO YES

Flight hardware will be shipped to GSFC for testing prior to final delivery. NO YES NA

Government Furnished Property/Facilities: NO YES

Perform work on GSFC premises: NO YES

Surveillance Plan Attached: NO YES

Performance Spec Attached: NO YES

Highlighted Contract Clauses:

The Contractor shall perform in accordance with the attached Statement of Work and Task Plan at the CPFF amount:

PERIOD OF PERFORMANCE	START DATE:	2/1/2017	END DATE:	1/31/2019
ESTIMATED COST:	\$	FIXED FEE:	\$	TOTAL COST PLUS FIXED FEE:
				\$

NOTES:

AUTHORIZED SIGNATURE:

THIS TASK ASSIGNMENT IS ISSUED ACCORDING TO THE CONTRACT CLAUSE "TASK ASSIGNMENTS AND REPORTS"

SIGNATURE OF CONTRACTING OFFICER	DATE	TYPED NAME OF CONTRACTING OFFICER
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CONTRACTOR'S ACCEPTANCE:

SIGNATURE OF CONTRACTOR	DATE	TYPED NAME OF CONTRACTOR
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NASA/GODDARD SPACE FLIGHT CENTER
REQUEST FOR TASK PLAN / TASK ORDER

CONTRACTOR	CONTRACT	TASK #	REVISION #	JOB ORDER #	APPROP. FY

STATEMENT OF WORK:

The effort will support work to evaluate the radiometric calibration of earth imaging sensors relative to each sensor's stated accuracy as well as to other sensors.

The Contractor shall:

Support SI-traceable characterization and application of sources used for pre-flight and on-orbit radiometric calibration including onboard, lunar, solar, desert, cloud, and water sources.

Application of SI-traceable sources to determine radiometric calibration of earth imaging sensors relevant to NASA's science mission including sensors on Landsat and Terra platforms.

Support the dissemination of results through journal articles and other publications, web-based means, and through presentation and attendance at appropriate conferences, meetings, and teleconferences.

TRAVEL SCHEDULE:

Anticipated travel includes 1) one week per year of field work at test sites in Nevada; 2) Annual SPIE Science Conference held in San Diego (or equivalent science conference); and 3) twice yearly meetings of the Committee on Earth Observation Satellites Working Group on Calibration and Validation Infrared and Visible Optical Sensors Meetings typically held at European venues.

OTHER DIRECT COSTS:

None

MILESTONES/DELIVERABLES AND DATES:

Monthly progress reports in accordance with the base contract and the SOW.

FINAL DELIVERY DESTINATION (Name, Code, Extension, Building, Room):

Kurtis Thome, 618, 4-6671, Bldg 33, Rm G320

Contract: Hydrospheric and Biospheric Sciences Support Services (HBS)		Contract Num: NNG15HQ01C	Period: 12/01/2014 - 11/30/2019
Task Num/Mod Num: 6068/3 (Technical)	Title: GEO-CAPE OCEAN COLOR RESEARCH	Task Period: 04/13/2016 - 12/31/2018	
Parent Task	Lower Subtasks: 0		
Task Type: Code 600	Flight: Non-Flight	Process Stage: Fully_Awarded	Process Date: 03/12/2018
Awarded To: Science Systems and Application Inc (SSAI)			
Current Mod. Est. Cost: (b) (4)	Current Mod Max. Fee: (b) (4)	Current Mod Cost (Mod Est Cost + Mod Max Fee): \$42,115.00	
Total Estimated Cost: (b) (4)	Total Maximum Fee: (b) (4)	Task Order Total Cost (Total Est Cost + Total Max Fee): \$238,780.00	
Task Monitor (TM) Antonio Mannino		Date 02/21/2018 06:02 PM	Org Code 6160 Phone 301.286.0182
Antonio Mannino			
Project Resource Analyst Nicole Ayala		Date 02/22/2018 02:25 PM	Org Code 616.0 Phone 301.286.7109
Nicole Ayala			
Branch Head Carlos E Del castillo		Date 02/07/2018 12:25 PM	Org Code 6160 Phone 301.286.8787
Carlos E Del castillo			
Contract Resource Analyst Lisa M Grochola		Date 02/23/2018 02:20 PM	Org Code 6030 Phone 301.286.5072
RONNETTE M BARNES			
I hereby verify that the government cost estimate accompanied with this PR complies with GPR-5100.5B.			
Contracting Officer Technical Rep. (COR) John R Moisan		Date 02/28/2018 08:32 AM	Org Code 610W Phone (757)824-1312
John R Moisan			
Contract Specialist (CSp) Alonda L Woodley		Date 03/12/2018 10:46 AM	Org Code 210Y Phone 301.286.5075
Ian P Sherry			
Contracting Officer (CO) DARLENE D HARKINS		Date 03/12/2018 11:38 AM	Org Code 210Y Phone 301.286.4764
DARLENE D HARKINS			
Gov. Cost Estimate: (b) (4) Cost Estimate File Attached: Yes			Work Performed On-Site: All
Funding Information: 304029.04.02.01.50(SCEX22015D),304029.04.02.01.64(SCEX22017D),304029.04.02.01.64(SCEX22016D)			Government Furnished Property/Facilities: Yes
Task Background Attached: No			
Capital Asset Item: No			
Contractor will develop specification or statement of work under this task for a future procurement: No			
Deliver To: Antonio Mannino, Code 616.1, Bldg 022, Room 250			

**NASA/GODDARD SPACE FLIGHT CENTER
REQUEST FOR TASK PLAN / TASK ORDER**

CONTRACTOR	CONTRACT #	TASK #	REVISION #	JOB ORDER #	APPROP. FY
SSAI	NNG15HQ01C			304029.04.02.01.64	16 and 17

TASK TITLE: (NTE 80 Characters; Include Project Name)

GEO-CAPE OCEAN COLOR RESEARCH

APPROVALS: (Type or print name and sign)

ASSISTANT TECHNICAL REPRESENTATIVE (OR TASK MONITOR)	DATE	ORG CODE	PHONE
Antonio Mannino	2/2/2018	616	301-286-0182
BRANCH HEAD	DATE	ORG CODE	PHONE
Carlos Del Castillo		616	301-286-8787
RESOURCE ANALYST	DATE	ORG CODE	PHONE
Nicole Ayala			
CONTRACTING OFFICER'S REPRESENTATIVE (COTR)	DATE	ORG CODE	PHONE
John Moisan			

FLIGHT HARDWARE, CRITICAL GSE OR SOFTWARE? (IF YES, NEED CODE 303 CONCURRENCE NEXT BLOCK)	CODE	CONTRACTING OFFICER'S QUALITY REP.	DESIGNATED FAM:
<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES			

Contractor will develop specification or statement of work under this task for a future procurement.	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
Flight hardware will be shipped to GSFC for testing prior to final delivery.	<input type="checkbox"/> NO	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NA
Government Furnished Property/Facilities:	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Perform work on GSFC premises:	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
Surveillance Plan Attached:	<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
Performance Spec Attached:	<input type="checkbox"/> NO	<input type="checkbox"/> YES

Highlighted Contract Clauses:

The Contractor shall perform in accordance with the attached Statement of Work and Task Plan at the CPFF amount:

PERIOD OF PERFORMANCE	START DATE:	4/14/2018	END DATE:	12/31/2018
ESTIMATED COST:	\$	FIXED FEE:	\$	TOTAL COST PLUS FIXED FEE:

NOTES: THE TOTAL COST IS BASED ON A SOLICITED PROPOSAL SUBMITTED TO GEO-CAPE OCEAN SCIENCE MISSION PRE-FORMULATION SOLICITATION. THIS AMOUNT MUST INCLUDE ANY AND ALL FIXED FEES.

No additional funds will be placed on the task. Renewal allows **b) (4)** to spend out the balance of his FY17 award - cost estimated provided in prior year renewal.

AUTHORIZED SIGNATURE:

THIS TASK ASSIGNMENT IS ISSUED ACCORDING TO THE CONTRACT CLAUSE "TASK ASSIGNMENTS AND REPORTS"

SIGNATURE OF CONTRACTING OFFICER	DATE	TYPED NAME OF CONTRACTING OFFICER
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CONTRACTOR'S ACCEPTANCE:

SIGNATURE OF CONTRACTOR	DATE	TYPED NAME OF CONTRACTOR
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NASA/GODDARD SPACE FLIGHT CENTER
REQUEST FOR TASK PLAN / TASK ORDER

CONTRACTOR	CONTRACT	TASK #	REVISION #	JOB ORDER #	APPROP. FY

STATEMENT OF WORK:

The task will support research directed at understanding marine biogeochemistry and ecosystem dynamics (including atmospheric) and temporal variability on regional scales, e.g., the US eastern continental shelf. The research will emphasize studies related to ocean color retrievals from geostationary orbit. This research is conducted in support of the NASA Ocean Biogeochemistry Program (<http://science.hq.nasa.gov/oceans/>). The scope of the work will include satellite data analysis and processing and radiative-transfer simulations. Research activities may involve the development and evaluation of satellite products for existing satellite sensors in preparation for a future GEO-CAPE (Geostationary Coastal and Air Pollution Events) mission.

Specifically,

GEO-CAPE Scientific Studies:

(a) Atmospheric Correction Optimization. a comprehensive study of the SWIR water-leaving signal in coastal waters (e.g., river mouths, bays, and harbors) will be performed on atmospherically corrected scenes of Landsat8-OLI, SNPP-VIIRS, and Aqua-MODIS. In particular, the OLI instrument allows for studying small-scale spatial variability present in the longer SWIR channels. A sensitivity analysis using radiative transfer modeling will also be conducted to find optimal band settings that a) have sufficient sensitivity to various aerosol compositions, size distributions, and b) provide desired SNR levels given the GEO-CAPE's design limitations and fabrication costs.

(b) KORUS-OC scientific investigations (Korean-U.S. joint ocean color field campaign in May-June 2016).

- i) evaluating the spatial representativeness of GOCI pixels across its FOV,
- ii) revisiting the geolocation requirements for the Geo-CAPE OC mission,
- iii) analyzing the impact of measurements of atmospheric trace gases on Level-2 OC products, and
- iv) making product intercomparisons to map measurement/product uncertainties across GOCI's FOV.

The work will strongly support the efforts during KORUS-OC by combining the measured in-situ data, GOCI observations, and simulated data to further optimize the science-instrument requirements for the planned Geo-CAPE OC mission.

(c) Process Satellite Data. The contractor shall process satellite data as needed to generate ocean color-relevant atmospheric products and ocean optical properties and biogeochemical products as required to accomplish research objectives.

(d) Document Work Performed. The contractor shall prepare reports and manuscripts for publication related to the work performed.

5.0 Deliverables/Reporting Requirements

- Contributions to scientific publications, workshops/conferences/symposia, both oral presentations and written contributions.
- Quarterly and annual reports.

TRAVEL SCHEDULE:

International Ocean Color Symposium, Lisbon, PORTUGAL – May 15-19, 2017

OTHER DIRECT COSTS:

If applicable

MILESTONES/DELIVERABLES AND DATES:

If applicable

FINAL DELIVERY DESTINATION (Name, Code, Extension, Building, Room):

Contract: Hydrospheric and Biospheric Sciences Support Services (HBS)		Contract Num: NNG15HQ01C	Period: 12/01/2014 - 11/30/2019	
Task Num/Mod Num: 6035/5 (Technical)	Title: Web Development - Codes 610HB and 610AT		Task Period: 12/01/2014 - 11/30/2018	
Parent Task	Lower Subtasks: 0			
Task Type: Code 600	Flight: Non-Flight	Process Stage: Fully_Awarded	Process Date: 03/13/2018	Awarded To: Science Systems and Application Inc (SSAI)
Current Mod. Est. Cost: (b) (4)	Current Mod. Max. Fee: (b) (4)	Current Mod Cost (Mod Est Cost + Mod Max Fee): \$97,244.00		
Total Estimated Cost: (b) (4)	Total Maximum Fee: (b) (4)	Task Order Total Cost (Total Est Cost + Total Max Fee): \$1,352,073.00		
Task Monitor (TM) ROSA M KAO		Date 02/22/2018 02:35 PM	Org Code 6100	Phone 301.614.5673
ROSA M KAO				
Project Resource Analyst Kishawn O Sutton		Date 02/26/2018 11:33 AM	Org Code 6030	Phone 301.286.5479
Kishawn O Sutton				
Branch Head TORRY A JOHNSON		Date 02/05/2018 01:11 PM	Org Code 6100	Phone 301.614.5683
TORRY A JOHNSON				
Contract Resource Analyst Lisa M Grochola		Date 02/26/2018 11:46 AM	Org Code 6030	Phone 301.286.5072
RONNETTE M BARNES				
I hereby verify that the government cost estimate accompanied with this PR complies with GPR-5100.5B.				
Contracting Officer Technical Rep. (COR) John R Moisan		Date 02/28/2018 08:33 AM	Org Code 610W	Phone (757)824-1312
John R Moisan				
Contract Specialist (CSp) Alonda L Woodley		Date 03/13/2018 03:58 PM	Org Code 210Y	Phone 301.286.5075
DARLENE D HARKINS				
Contracting Officer (CO) DARLENE D HARKINS		Date 03/13/2018 03:58 PM	Org Code 210Y	Phone 301.286.4764
DARLENE D HARKINS				
Gov. Cost Estimate: [REDACTED] Cost Estimate File		Work Performed On-Site: All		
Attached: Yes		Government Furnished Property/Facilities: No		
Funding Information: 365382.04.23.07(SCEX22018D)				
Task Background Attached: No				
Capital Asset Item: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: TORRY A JOHNSON, Code 610.9, Bldg 033, Room A120B				

TECHNICAL WORK MAY NOT BEGIN PRIOR C.O. APPROVAL

NASA/GODDARD SPACE FLIGHT CENTER

REQUEST FOR TASK PLAN / TASK ORDER

CONTRACTOR	CONTRACT #	TASK #	REVISION #	JOB ORDER #	APPROP. FY
SSAI	NNG15HQ01C	6035			

TASK TITLE: (NTE 80 Characters; Include Project Name)

Web Development – Codes 610HB and 610AT

APPROVALS: (Type or print name and sign)

ASSISTANT TECHNICAL REPRESENTATIVE (OR TASK MONITOR)	DATE	ORG CODE	PHONE
Rosa Kao		610	301-614-5673
BRANCH HEAD	DATE	ORG CODE	PHONE
Torry A. Johnson		610	301-614-5683
RESOURCE ANALYST	DATE	ORG CODE	PHONE
Kishawn Sutton		610	301-286-5479
CONTRACTING OFFICER'S REPRESENTATIVE (COTR)	DATE	ORG CODE	PHONE
John Moisan		610W	757-824-1312

FLIGHT HARDWARE, CRITICAL GSE OR SOFTWARE? (IF YES, NEED CODE 303 CONCURRENCE/EXT BLOCK)	CODE CONTRACTING OFFICER'S QUALITY REP.	DESIGNATED FAM:
<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES		

Contractor will develop specification or statement of work under this task for a future procurement.	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES
Flight hardware will be shipped to GSFC for testing prior to final delivery.	<input type="checkbox"/> NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> NA
Government Furnished Property/Facilities:	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES
Perform work on GSFC premises:	<input type="checkbox"/> NO <input checked="" type="checkbox"/> YES
Surveillance Plan Attached:	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES
Performance Spec Attached:	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES

Highlighted Contract Clauses:

The Contractor shall perform in accordance with the attached Statement of Work and Task Plan at the CPEP amount:

PERIOD OF PERFORMANCE	START DATE:	12/01/2015	END DATE:	11/30/2018	
ESTIMATED COST:	\$	FIXED FEE:	\$	TOTAL COST PLUS FIXED FEE:	\$

NOTES:

AUTHORIZED SIGNATURE:

THIS TASK ASSIGNMENT IS ISSUED ACCORDING TO THE CONTRACT CLAUSE "TASK ASSIGNMENTS AND REPORTS"

SIGNATURE OF CONTRACTING OFFICER _____ DATE _____ TYPED NAME OF CONTRACTING OFFICER _____

CONTRACTOR'S ACCEPTANCE:

SIGNATURE OF CONTRACTOR _____ DATE _____ TYPED NAME OF CONTRACTOR _____

TECHNICAL WORK MAY NOT BEGIN PRIOR TO C.O. APPROVAL

NASA/GODDARD SPACE FLIGHT CENTER

REQUEST FOR TASK PLAN / TASK ORDER

CONTRACTOR	CONTRACT	TASK #	REVISION #	JOB ORDER #	APPROP. FY

STATEMENT OF WORK:

The Contractor shall:

- Provide maintenance and development of web sites for laboratories, instruments, missions, and projects, assuring that they meet all NASA/GSFC IT security requirements and Web policies and are updated regularly.
- Update/refresh older websites
- Assist staff with Content Management Systems
- Provide recommendations for website updates
- Report property highlights, task work and problems on a monthly basis - via email

TRAVEL SCHEDULE:

None

OTHER DIRECT COSTS:

None

MILESTONES/DELIVERABLES AND DATES:

Monthly, Quarterly Reports, and Final Report in accordance with the base contract and statement of work.

FINAL DELIVERY DESTINATION (Name, Code, Extension, Building, Room):

Torry Johnson, Code 618, 301-614-5683

Contract: Hydrospheric and Biospheric Sciences Support Services (HBS)		Contract Num: NNG15HQ01C	Period: 12/01/2014 - 11/30/2019	
Task Num/Mod Num: 6060/5 (Technical)	Title: Carbon System Modeling Support		Task Period: 02/01/2015 - 01/31/2019	
Parent Task	Lower Subtasks: 0			
Task Type: Code 600	Flight: Non-Flight	Process Stage: Fully_Awarded	Process Date: 03/07/2018	Awarded To: Science Systems and Application Inc (SSAI)
Current Mod. Est. Cost: (b) (4)	Current Mod. Max. Fee: (b) (4)	Current Mod Cost (Mod Est Cost + Mod Max Fee): \$780,781.00		
Total Estimated Cost: (b) (4)	Total Maximum Fee: (b) (4)	Task Order Total Cost (Total Est Cost + Total Max Fee): \$3,150,302.00		
Task Monitor (TM) COMPTON J TUCKER		Date 02/22/2018 02:28 PM	Org Code 6100	Phone 301.614.6644
COMPTON J TUCKER				
Project Resource Analyst Kishawn O Sutton		Date 02/28/2018 02:50 PM	Org Code 6030	Phone 301.286.5479
Kishawn O Sutton				
Branch Head TORRY A JOHNSON		Date 02/05/2018 01:11 PM	Org Code 6100	Phone 301.614.5683
TORRY A JOHNSON				
Contract Resource Analyst Lisa M Grochola		Date 03/01/2018 11:59 AM	Org Code 6030	Phone 301.286.5072
RONNETTE M BARNES				
I hereby verify that the government cost estimate accompanied with this PR complies with GPR-5100.5B.				
Contracting Officer Technical Rep. (COR) John R Moisan		Date 03/01/2018 03:05 PM	Org Code 610W	Phone (757)824-1312
John R Moisan				
Contract Specialist (CSp) Alonda L Woodley		Date 03/06/2018 12:01 PM	Org Code 210Y	Phone 301.286.5075
Ian P Sherry				
Contracting Officer (CO) DARLENE D HARKINS		Date 03/07/2018 12:12 PM	Org Code 210Y	Phone 301.286.4764
DARLENE D HARKINS				
Gov. Cost Estimate: [REDACTED] Cost Estimate File		Work Performed On-Site: All		
Attached: Yes				
Funding Information: 547714.04.13.01.50(SCEX22018D) Government Furnished Property/Facilities: No				
Task Background Attached: No				
Capital Asset Item: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: COMPTON J TUCKER, Code 610.9, Bldg 033, Room A106				

**NASA/GODDARD SPACE FLIGHT CENTER
REQUEST FOR TASK PLAN / TASK ORDER**

CONTRACTOR	CONTRACT #	TASK #	REVISION #	JOB ORDER #	APPROP. FY
SSAI	NNG15HQ01C	6060	3		

TASK TITLE: (NTE 80 Characters; Include Project Name)

Carbon Cycling Modeling Support

APPROVALS: (Type or print name and sign)

ASSISTANT TECHNICAL REPRESENTATIVE (OR TASK MONITOR)	DATE	ORG CODE	PHONE
Compton J. Tucker	1/18/2018	610	301-614-6644
BRANCH HEAD	DATE	ORG CODE	PHONE
Torry A. Johnson	1/18/2018	610	301-614-5683
RESOURCE ANALYST	DATE	ORG CODE	PHONE
Kishawn Sutton	1/18/2018	603	301-286-5479
CONTRACTING OFFICER'S REPRESENTATIVE (COTR)	DATE	ORG CODE	PHONE
John R. Moisan	1/18/2018	610.W	757-824-1312

FLIGHT HARDWARE, CRITICAL GSE OR SOFTWARE? (IF YES, NEED CODE 303 CONCURRENCE NEXT BLOCK) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	CODE CONTRACTING OFFICER'S QUALITY REP.	DESIGNATED FAM:
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Contractor will develop specification or statement of work under this task for a future procurement.	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES
Flight hardware will be shipped to GSFC for testing prior to final delivery.	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> NA
Government Furnished Property/Facilities:	<input type="checkbox"/> NO <input checked="" type="checkbox"/> YES
Perform work on GSFC premises:	<input type="checkbox"/> NO <input checked="" type="checkbox"/> YES
Surveillance Plan Attached:	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES
Performance Spec Attached:	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES

Highlighted Contract Clauses:

The Contractor shall perform in accordance with the attached Statement of Work and Task Plan at the CPFF amount:

PERIOD OF PERFORMANCE	START DATE:	2/1/2015	END DATE:	1/31/2019
ESTIMATED COST:	\$	FIXED FEE:	\$	TOTAL COST PLUS FIXED FEE: \$

NOTES:

AUTHORIZED SIGNATURE:

THIS TASK ASSIGNMENT IS ISSUED ACCORDING TO THE CONTRACT CLAUSE "TASK ASSIGNMENTS AND REPORTS"

SIGNATURE OF CONTRACTING OFFICER	DATE	TYPED NAME OF CONTRACTING OFFICER
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CONTRACTOR'S ACCEPTANCE:

SIGNATURE OF CONTRACTOR	DATE	TYPED NAME OF CONTRACTOR
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NASA/GODDARD SPACE FLIGHT CENTER
REQUEST FOR TASK PLAN / TASK ORDER

CONTRACTOR	CONTRACT	TASK #	REVISION #	JOB ORDER #	APPROP. FY
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STATEMENT OF WORK:

Subtask D

This subtask provides support for near-real time satellite data processing and data distribution to support research activities supporting Agricultural Service, Food and Drug Administration, Department of Defense, and USAID's Famine Early Warning System using data from MetOps' AVHRR instruments, MODIS Aqua & Terra, NOAA's VIIRS instrument, and SPOT Vegetation. In support of these activities the contractor will:

- Ingest daily satellite data streams, process the respective data streams, and provide near-real time distribution of data products;
- Develop computer processing code to handle multiple input data streams;
- Add a 0.25° soil moisture layer, based on SMOS data incorporated using an enhanced modified Palmer Index algorithm, to the near real-time NDVI processing;
- Develop the implementation to ingest VIIRS NDVI data from the NPP & JPSS satellites;
- Provide scientific analyses of near-real time data products for our collaborators in the areas of agricultural shortfalls, disease outbreaks, famine early warning, and data integrity;
- Closely monitor all of this task's computer processing systems, including central processor arrays, large RAID storage systems, network functionality, and document and report any problems associated with these systems;
- Document work performed, document all computer code written, and assist in the development of presentations and written materials, including journal papers;
- Work closely with the Foreign Agricultural Service, Food and Drug Administration, Department of Defense, and USAID's Famine Early Warning System; and
- Limited travel, with the advance approval of the TM, may be necessary to support this subtask.

Subtask E

This subtask provides support for satellite analysis of AVHRR, MODIS, Landsat, and commercial high resolution and stereo imagery, for land disturbance and land degradation analyses for Senegal, Uganda, Kenya, and Tanzania; for analyses of Madagascar woodlands, tropical forests, temperate forests, and boreal forests; for tree and bush census efforts from 12°N to 24°N from the Atlantic Ocean to the Red Sea; for the extent of tropical and other glaciers' surface area through time using the satellite record; and Non-stationary NDVI3g data analysis for climate studies, to include:

- Feature extraction from large geophysical temporal, multi-spectral and hyper-spatial data;
- Uncertainty quantification, quality assurance, and calibration of geophysical observations;
- Image analysis, image compression, image classification, Bayesian analysis & remote sensing applications for monitoring eco-climatic conditions associated with emerging infectious diseases;
- Documentation of work performed in the form of scientific papers;
- Documentation of all computer code utilized to organize and process the satellite data used; and
- Limited travel, with the advance approval of the TM, may be necessary to support this subtask.

Subtask I

This subtask provides support for satellite analysis of Landsat, commercial high-resolution, and commercial stereo imagery to determine the area of all the tropical glaciers in the New World and elsewhere. In addition to the satellite analyses, precipitation data for all glaciers areas will be analyzed and the 500 mb atmospheric temperatures from MERRA-2 will be analyzed. This will include:

- Uncertainty quantification, quality assurance, and inter-comparisons of geophysical observations of glacier area between Landsat 16's Advanced Baseline Imager, and coincident commercial satellite data;
- Image analysis, image compression, image classification, Bayesian analysis & remote sensing applications for monitoring tree extent and differentiating ice from snow;
- Documentation of work performed in the form of scientific papers;
- Documentation of all computer code utilized to organize and process the satellite data used; and
- Limited travel, with the advance approval of the TM, may be necessary to support this subtask.
- A limited consultancy may be necessary to develop a proposal to support GOES-16's Advanced Baseline Imager data specialized processing for this task. This will involve (b) (4) [redacted], will be <\$2500, and will be executed during FY17. (b) (4) [redacted] will provide his expertise for processing of geostationary image collection from a MetoSat Second Generation geostationary imager that is very similar to GOES-16's Advanced Baseline Imager.

TRAVEL SCHEDULE:

OTHER DIRECT COSTS:

N/A

MILESTONES/DELIVERABLES AND DATES:

Yearly reports, presentations an written materials including journal papers.

FINAL DELIVERY DESTINATION (Name, Code, Extension, Building, Room):

Compton J. Tucker, Code 610.0, Bldg. 33, Room A106

Contract: Hydrospheric and Biospheric Sciences Support Services (HBS)		Contract Num: NNG15HQ01C	Period: 12/01/2014 - 11/30/2019	
Task Num/Mod Num: 6061/3 (Technical)	Title: Satellite Altimetric Hydrology Studies	Task Period: 02/01/2015 - 01/31/2019		
Parent Task	Lower Subtasks: 0			
Task Type: Code 600	Flight: Non-Flight	Process Stage: Fully_Awarded	Process Date: 03/12/2018	Awarded To: Science Systems and Application Inc (SSAI)
Current Mod. Est. Cost: (b) (4)	Current Mod. Max. Fee: (b) (4)	Current Mod Cost (Mod Est Cost + Mod Max Fee): \$129,134.00		
Total Estimated Cost: (b) (4)	Total Maximum Fee: (b) (4)	Task Order Total Cost (Total Est Cost + Total Max Fee): \$496,788.00		
Task Monitor (TM) MICHAEL F JASINSKI		Date 03/05/2018 12:06 PM	Org Code 6170	Phone 301.614.5782
MICHAEL F JASINSKI				
Project Resource Analyst Felicia S Harrison		Date 03/07/2018 01:34 PM	Org Code 617.0	Phone 301.614.5674
Felicia S Harrison				
Branch Head MATTHEW RODELL		Date 01/30/2018 03:24 PM	Org Code 6170	Phone 301.286.9143
MATTHEW RODELL				
Contract Resource Analyst Lisa M Grochola		Date 03/07/2018 01:50 PM	Org Code 6030	Phone 301.286.5072
RONNETTE M BARNES				
I hereby verify that the government cost estimate accompanied with this PR complies with GPR-5100.5B.				
Contracting Officer Technical Rep. (COR) John R Moisan		Date 03/09/2018 01:21 PM	Org Code 610W	Phone (757)824-1312
John R Moisan				
Contract Specialist (CSp) Alonda L Woodley		Date 03/12/2018 11:31 AM	Org Code 210Y	Phone 301.286.5075
DARLENE D HARKINS				
Contracting Officer (CO) DARLENE D HARKINS		Date 03/12/2018 11:33 AM	Org Code 210Y	Phone 301.286.4764
DARLENE D HARKINS				
Gov. Cost Estimate: [REDACTED] Cost Estimate File		Work Performed On-Site: All		
Attached: Yes				
Funding Information: 883151.04.05.01.46(SCEX22018D)		Government Furnished Property/Facilities: Yes		
Task Background Attached: No				
Capital Asset Item: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: MICHAEL F JASINSKI, Code 617.0, Bldg 033, Room G215				

**NASA/GODDARD SPACE FLIGHT CENTER
REQUEST FOR TASK PLAN / TASK ORDER**

CONTRACTOR	CONTRACT #	TASK #	REVISION #	JOB ORDER #	APPROP. FY
SSAI	NNG15HQ01C	6061	3		

TASK TITLE: (NTE 80 Characters; Include Project Name)

Satellite Allimetric Hydrology Studies

APPROVALS: (Type or print name and sign)

ASSISTANT TECHNICAL REPRESENTATIVE (OR TASK MONITOR)	DATE	ORG CODE	PHONE
Michael F. Jasinski	2/1/2018	617	301-614-5782
BRANCH HEAD	DATE	ORG CODE	PHONE
Matthew Rodell	2/1/2018	617	301-286-9143
RESOURCE ANALYST	DATE	ORG CODE	PHONE
Felicia Harrison	2/1/2018	617	301-614-5674
CONTRACTING OFFICER'S REPRESENTATIVE (COTR)	DATE	ORG CODE	PHONE
John Moisan	2/1/2018	610W	757-824-1515

FLIGHT HARDWARE, CRITICAL GSE OR SOFTWARE? (IF YES, NEED CODE 303 CONCURRENCE NEXT BLOCK) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	CODE CONTRACTING OFFICER'S QUALITY REP.	DESIGNATED FAM:
---------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------	-----------------

Contractor will develop specification or statement of work under this task for a future procurement.	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES
Flight hardware will be shipped to GSFC for testing prior to final delivery.	<input type="checkbox"/> NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> NA
Government Furnished Property/Facilities:	<input type="checkbox"/> NO <input checked="" type="checkbox"/> YES
Perform work on GSFC premises:	<input type="checkbox"/> NO <input checked="" type="checkbox"/> YES
Surveillance Plan Attached:	<input type="checkbox"/> NO <input checked="" type="checkbox"/> YES
Performance Spec Attached:	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES

Highlighted Contract Clauses:

The Contractor shall perform in accordance with the attached Statement of Work and Task Plan at the CPFF amount:

PERIOD OF PERFORMANCE	START DATE:	1/31/2017	END DATE:	1/30/2018
ESTIMATED COST:	\$	FIXED FEE:	\$	TOTAL COST PLUS FIXED FEE:
				\$

NOTES:

AUTHORIZED SIGNATURE:

THIS TASK ASSIGNMENT IS ISSUED ACCORDING TO THE CONTRACT CLAUSE "TASK ASSIGNMENTS AND REPORTS"

SIGNATURE OF CONTRACTING OFFICER	DATE	TYPED NAME OF CONTRACTING OFFICER
CONTRACTOR'S ACCEPTANCE:		
SIGNATURE OF CONTRACTOR	DATE	TYPED NAME OF CONTRACTOR

NASA/GODDARD SPACE FLIGHT CENTER

REQUEST FOR TASK PLAN / TASK ORDER

CONTRACTOR	CONTRACT	TASK #	REVISION #	JOB ORDER #	APPROP. FY

STATEMENT OF WORK:

The objective of this task is to conduct analyses of satellite altimetric data, including ICESat-2 lidar observations, to better understand the hydrologic cycle. The contractor shall, under the direction of the ATR: 1) Analyze characteristics of ICESat-2, airborne MABEL and other lidar systems, in situ data, and data products related to inland water surface elevation, snow and other properties, and other surface water and hydrology variables, 2) Develop software code for the ICESat-2 mission for the Inland Water retrieval algorithm, 3) Assist the ATR in the development and writing of the Inland Water Algorithm Theoretical Basis Document (ATBD) for the ATL13 Inland Water Product, and 4) conduct other studies as requested by the ATR related to ICESat-2 or other altimeters, other remote sensing sensors, or hydrologic models.

The Contractor shall specifically:

- Perform analysis of aircraft and satellite based lidar data from ICESAT2, MABEL and other altimeters, and data products for estimating terrestrial hydrology characteristics including inland water body height statistics, snow depth, land surface and other hydrologic components, for regions of varying water body type, topography and vegetation cover types.
- Compare analysis of ICESat-2, MABEL or other lidar data to in situ water body data and snow observations including lakes, rivers and coastal areas, and land.
- Develop or contribute to creation of water body and regional basin masks or other supporting databases.
- Develop and write computer code for above analysis and the ICESat-2 Inland Water ATBD,
- Prepare summary data, databases, graphics, and manuscripts as requested for science meeting presentations, Algorithm Theoretical Basis Documents (ATBD), ICESat2 Science and ATBD meetings, and journal articles.

All contractor work shall be performed under the direction of the ATR.

TRAVEL SCHEDULE:

As requested

OTHER DIRECT COSTS:

If applicable

MILESTONES/DELIVERABLES AND DATES:

Prepare analyses, summary data, graphics, computer code, and manuscripts as requested for science meeting presentations, Algorithm Theoretical Basis Documents (ATBD), ICESat2 Science and ATBD meetings, and journal articles dates to be provided by the ATR as they become available.

FINAL DELIVERY DESTINATION (Name, Code, Extension, Building, Room):

Michael Jasinski, Code 617, Ext. 4-5782, Bldg. 33, Rm. G215