

GODDARD SPACE FLIGHT  
CENTER

**TASK ORDER**  
(Instructions and Distribution on  
Reverse)

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1. CONTRACTOR:  
**SSAI**

2. CONTRACT NO.:  
**NNG12HP08C**

3. TASK/REVISION NO.:  
Task Order #010 Rev.1

4. JOB ORDER NO./PROJECT:

5. FLIGHT HARDWARE /SOFTWARE;  
CRITICAL GSA (IF, YES, OBTAIN  
BLOCK 16 CONCURRENCE):  
YES  NO

6. DESIGNATED FLIGHT  
ASSURANCE MGR.:

7. DESCRIPTION OF WORK TO BE PERFORMED (OBJECTIVES OR RESULTS DESIRED):

**Satellite and Ground-Based Aerosol Analysis**

8. TASK DOCUMENTATION REQUIREMENTS/DELIVERABLE ITEMS:

(See Attached Task Order)

9. PERFORMANCE/MILESTONE SCHEDULE:

**May 1, 2015 – April 30, 2016**

REVISION PERFORMANCE/MILESTONE SCHEDULE:

**October 2, 2015 – April 30, 2016**

10. QUALITY ASSURANCE REQUIREMENTS:

N/A

11. TRAVEL, MATERIALS, ETC., KNOWN TO BE REQUIRED:

(See Attached Task Order)

12. OTHER (FUNDING, NTE, HOURS, ETC.):

	From	By	To
Total Cost:			
Fee:			
Total Price:	\$279,120	\$60,207	\$339,327

13. TASK ORIGINATOR/MONITOR/CODE/PHONE:

Christina Hsu/613.0/4-5554

14. BRANCH APPROVAL:

15. DIVISION  
CONCURRENCE:

18. THIS TASK ORDER IS ISSUED  
PURSUANT TO THE TERMS OF  
THE CONTRACT.

  
CONTRACTING OFFICER'S  
SIGNATURE/ DATE 9/30/15

16. CONTRACTING OFFICER'S TECHNICAL  
REPRESENTATIVE:

Joel Susskind

Makara K. Nevils  
TYPED OR PRINTED NAME

17. CONTRACTOR SIGNATURE:

Science Systems and Applications, Inc.  
NNG12HP08C  
Task Order Statement of Work

Task Order Number: CY4\_010\_Rev1

Task Order Title: Satellite and Ground-Based Aerosol Analysis

1.0 Task Monitor (TM):

Name: Christina Hsu  
Organization: 613: Climate and Radiation Laboratory  
Email Address: christina.hsu@nasa.gov

2.0 Description of Work to be Performed

Satellite and Ground-Based Aerosol Analysis

- Provide scientific and programming support in developing and evaluating satellite algorithms for retrieving aerosol properties used in the space-borne mission focusing on:
- Supporting development and validation of atmospheric remote sensing algorithms and scientific investigations of clouds, aerosols, and other related atmospheric phenomena using satellite data from MODIS, VIIRS, and other instruments, as well as from ground-based observations.
- Supporting the conversion of the “Deep Blue” algorithm Fortran scientific prototype into the operational software.
- Analyzing algorithm results and performing intercomparisons with other satellite aerosol products.
- Participating in field deployment and data analysis.
- Participating in writing of peer-reviewed scientific papers.
- Provide scientific support for the operational aerosol products of NASA's Suomi NPP (National Polar-orbiting Partnership) project, including:
  - Simulating the top of atmosphere reflectance measured by VIIRS using radiative transfer codes.
  - Developing the merged retrieval algorithm using combined VIIRS and OMPS measurements.
  - Comparing VIIRS aerosol products with MODIS to ensure data continuity for constructing long term climate data records.
- Provide Mission Science Support to NASA's Suomi NPP (National Polar-orbiting Partnership) program office, including:
  - Planning and coordination of project science meetings
  - Developing and editing meeting documents and related publications
  - Project web site content management
- Provide radiative transfer support for developing and evaluating satellite algorithms for retrieving aerosol properties, including:

- Developing user interfaces and various inputs for VLIDORT to simulate aerosol laden pixels for MODIS and VIIRS channels under cloud-free and cloudy conditions.
- Providing consultation for the “Deep Blue” team to implement VLIDORT at GSFC.

### 3.0 Special Requirements: None

### 4.0 Performance/Milestone Schedule:

The SAS Contract Year 4 POP is May 01, 2015 - April 30, 2016

Effective period of performance for Revision 1: October 2, 2015 - April 30, 2016

### 5.0 Deliverables/Reporting Requirements

- Contributions to scientific publications, workshops/conferences/symposia, both oral presentations and written contributions.
- Quarterly and annual reports.
- Delivery and availability of quality-controlled datasets and web-based material.
- Software and hardware documentation.
- Reports documenting participation in conferences, workshops, symposia, working groups and field activities.

### 6.0 Other Information Needed for Performance of Task

One domestic travel per year to present papers at the Fall AGU meeting in San Francisco, California is requested for two individuals.

### 7.0 Data Rights: N/A

### 8.0 Safety

Staff on this task shall comply with federal, state, local, and center safety regulations. This shall be accomplished through management emphasis, technical training, and personal responsibility. Staff shall participate in safety orientation and training in accordance with the contract Safety and Health Plan, and work within the requirements of that plan.

### 9.0 Risk

Contractor shall provide ongoing risk assessment and mitigation in performance of the Task Order. Priorities shall be re-evaluated as appropriate with the TM. Cost and schedule performance shall be assessed on a regular basis (no less frequently than monthly) and significant variations discussed and acted on in consultation with the TM and COR.

### 10.0 Proposed Cost and Fixed Fee

In accordance with Paragraph B.8 of the contract, propose the Cost and Fixed Fee amount.