

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 #070

4. JOB ORDER NO./PROJECT:

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

6. DESIGNATED FLIGHT  
ASSURANCE MGR.:

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

Biomass Burning Fire Energetics and Emissions Characterization

8. TASK DOCUMENTATION REQUIREMENTS/DELIVERABLE ITEMS:

(See Attached Task Order)

9. PERFORMANCE/MILESTONE SCHEDULE:

**May 1, 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.):

Total Cost:

Fee:

Total Price: **\$92,030**

13. TASK ORIGINATOR/MONITOR/CODE/PHONE:

Charles Ichoku/613.0/4- 6212

14. BRANCH APPROVAL:

15. DIVISION  
CONCURRENCE:

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

  
CONTRACTING OFFICER'S  
SIGNATURE/ DATE

Ayana A. Briscoe

Contracting Officer

Ayana A. Briscoe  
TYPED OR PRINTED NAME

16. CONTRACTING OFFICER'S TECHNICAL  
REPRESENTATIVE:

Joel Susskind

17. CONTRACTOR SIGNATURE:

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

Task Order Number: CY4\_070\_Rev0

Task Order Title: Biomass Burning Fire Energetics and Emissions Characterization

1.0 Task Monitor (TM):

Name: Charles Ichoku  
Organization: 613: Climate and Radiation Laboratory  
Email Address: charles.ichoku@nasa.gov

2.0 Description of Work to be Performed

- Ø Support scientific research on Fire Energetics and Emissions for large forest fires and other types of biomass burning, as observed by MODIS, VIIRS, and other satellite sensors globally. Retrieve fire radiative power and related geophysical parameters from satellite, airborne and ground-based measurements acquired using various instruments, including MODIS and VIIRS. Develop and maintain algorithms, models, and software tools for processing, analysis, and visualization of these fire products.
- Ø Quantify and characterize smoke emission sources and composition from a combination of satellite measurements and model parameters.
- Ø Participate in laboratory and field experiments for biomass burning fire and smoke characterization, including setting up and maintaining airborne and ground-based instrumentation. Perform comparative analysis of ground-based and airborne measurements of fire and smoke properties against corresponding satellite retrievals.
- Ø Develop and maintain appropriate web sites for data dissemination and collaborative research activities.
- Ø Support the concept formulation, design, testing, calibration, integration, and operation of new generation airborne remote-sensing instruments for fire and smoke characterization aboard NASA and other approved research aircraft during relevant field campaigns.
- Ø Attend professional workshops, conferences, meetings, seminars and courses necessary to communicate results, exchange ideas, and maintain expertise in various areas of biomass burning characterization, remote sensing, modeling, and analysis. Perform administrative activities in support of items listed above such as preparing and transcribing materials for workshops, compiling information on the efficacy of the workshops, assistance with scheduling activities and post activity follow up

### 3.0 Special Requirements

None

### 4.0 Performance/Milestone Schedule

The SAS Contract Year 4 POP is May 01, 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

Domestic or foreign travel may be required to attend professional workshops, conferences, meetings, seminars and courses necessary to communicate results, exchange ideas, and maintain expertise in various areas of biomass burning characterization, remote sensing, modeling, and analysis and will be determined on a case by case basis.

### 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.