

GODDARD SPACE FLIGHT CENTER		TASK ORDER (Instructions and Distribution on Reverse)		PAGE 1 OF 1
1. CONTRACTOR: SSAI	2. CONTRACT NO.: NNG12HP08C	3. TASK/REVISION NO.: Task Order #054		
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): Mesoscale Modeling: TRMM/GCE				
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: \$198,573				
13. TASK ORIGINATOR/MONITOR/CODE/PHONE: Wei-kuo Tao/612.0/4- 6269		18. THIS TASK ORDER IS ISSUED PURSUANT TO THE TERMS OF THE CONTRACT.		
14. BRANCH APPROVAL:	15. DIVISION CONCURRENCE:	CONTRACTING OFFICER'S SIGNATURE/ DATE <u>Ayana A. Briscoe</u> 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_054_Rev0
Task Order Title: Mesoscale Modeling: TRMM/GCE

1.0 Task Monitor (TM):

Name: Wei-kuo Tao
Organization: 612: Mesoscale Atmospheric Processes Laboratory
Email Address: wei-kuo.tao-1@nasa.gov

2.0 Description of Work to be Performed

- Investigate precipitation processes in the convective and stratiform regions of various mesoscale convective systems and moist processes represented in global modeling through:
- Cloud-resolving model simulations of mesoscale convective systems and comparisons of model results with dynamic, thermodynamic and microphysical data collected from various field experiments.
- Producing four-dimensional latent heating structures for the global tropics using TRMM derived rainfall information and providing the latent heating information to the global modeling community.
- Implement terrain into cloud modeling to examine the orographic effect on impact weather events
- Contribute to user support and agency, national and international activities as required
- Conduct high-resolution WRF model simulations to support NASA GPM and NU (NASA unified)-WRF. Also improve the WRF model performance by implementing / utilizing better Goddard microphysics, and improving WRF ability with better post-processing Special Requirements

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

Travel required for two persons to attend project workshops (NASA PMM, DOE ASR), and scientific meetings (WRF, AGU).

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.