

TECHNICAL WORK MAY NOT BEGIN PRIOR TO CO APPROVAL

NASA/GODDARD SPACE FLIGHT CENTER

Page 1 of 6

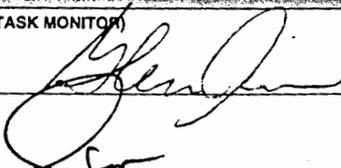
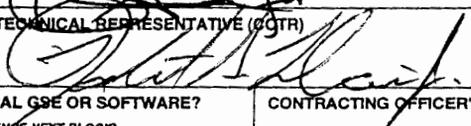
REQUEST FOR TASK PLAN / TASK ORDER

CONTRACTOR	CONTRACT NO./TASK NO.	JOB ORDER NUMBER	APPROP. FY
QSS Group, Inc.	NAS5- TASK NO. AMENDMENT 99124 367	423-428-12-87-89	01

TASK TITLE: (NTE 80 characters; include Project name)

SSDO System Engineering Analysis and Science Standards Development

(Type or print name and sign)

ASSISTANT TECHNICAL REPRESENTATIVE (OR TASK MONITOR)	DATE	ORG CODE	MAIL CODE	PHONE
Glenn Iona 	9/5/06	423	423	301-614-5285
BRANCH HEAD	DATE	CODE		PHONE
Dorothy C. Perkins 	9/11/05		423	301-614-5048
CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (COTR)	DATE	CODE		PHONE
Robert S. Lehair, Jr. 	9/14/00		560	301-286-6588

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

The contractor shall identify and explain the reason for any deviations, exceptions, or conditional assumptions taken with respect to this Task Order or to any of the technical requirements of the Task Order Statement of Work and related specifications. The contractor shall complete and submit the required Reps and Certs.

(To be completed by Contracting Officer)

C.O. Requested Quote on:
Date:

Contractor will develop specification or statement of work under this task for a future procurement.	<input 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 type="checkbox"/> N/A
Government Furnished Property/Facilities:	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES - SEE LIST OF GFP (offsite only) / FACILITIES (onsite only)
Onsite Performance:	<input type="checkbox"/> NO <input checked="" type="checkbox"/> YES If yes: <input type="checkbox"/> TOTAL <input checked="" type="checkbox"/> PARTIAL If partial, indicate onsite work in SOW by asterisk (*)

Surveillance Plan Attached:	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES
Highlighted Contract Clauses:	(to be completed by Contracting Officer)

Per Clause H.14, Task Ordering Procedure, subparagraph (f), the effective date of this task order shall be 10/1/00.

INCENTIVE FEE STRUCTURE (check one)

(See Contract NAS5-99124, Attachment K, Incentive Fee Plan)

	No. 1	No. 2	No. 3	No. 4	<input checked="" type="checkbox"/> No. 5
Cost	10%	50%	25%	25%	15%
Schedule	15%	25%	25%	50%	10%
Technical	75%	25%	50%	25%	75%

(To be completed by Contracting Officer)

The target cost of this task order is \$ 2,051,147.

The target fee of this task order is \$ 72,189.

The total target cost and target fee of this task order as contemplated by the Incentive Fee clause of this contract is \$ 2,123,336.

The maximum fee is \$ 105,507

The minimum fee is \$0.

AUTHORIZED SIGNATURE:

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


SIGNATURE OF CONTRACTING OFFICER

11/28/00
DATE

Theresa J. Becker
TYPED NAME OF CONTRACTING OFFICER

CONTRACTOR'S ACCEPTANCE:

AUTHORIZED SIGNATURE

DATE

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Applicable paragraphs from contract Statement of Work:

STATEMENT OF WORK: (Continue on blank paper if additional space is required)

This is a follow-on to Tasks 151, 156, and 181 under this contract: uninterrupted transition is required.

The contractor shall support the ESDIS project by providing engineering services to develop and verify the EOSDIS science data systems (e.g. ECS, EDG, and IIMS) and science standards development. ESDIS system engineering activities include requirements, EOS ground system I&T, security, VDB, test data/tools, ECS release transitions, and infrastructure tools. ESDIS SSDO development activities include support for EOSDIS science data systems development and testing. ESDIS science standards development activities include support for the formulation/communication of standards and the tracking of emerging technologies.

Specific tasks:

System Engineering

- 1. Requirements:** Prepare and review revisions/updates to EOSDIS science system requirements and specifications, including F&PRS, IRDs, ICDs, and DFCDs for new and existing missions.
- 2. ETE Integration:** Assist ESDIS with the EOSDIS science systems interface integration for Aqua, Aura, ICESAT, existing missions, and Flight Project tests. This includes support for coordination of technical interface meetings and resolution of open issues. This work will require support on-site at GSFC. Office space and computer equipment will be provided.
- 3. Security:** Support the SSDO security point of contact for implementation of security requirements within ECS. Assuring ECS security measures comply with the applicable documents 1-3 as specified in the applicable document section below. This work includes assuring the development, analysis, and implementation of compliant processes and plans. (e.g.; Security Plan/Risk Assessment Plan, Contingency Plan, Appointment Screening of System Administrators and Foreign Nationals, Rules of Behavior, Authorization to Process). This work will require travel to the various data centers.
- 4. ECS Verification Database (VDB):** Provide system engineering services for the completion of the ECS Verification Database (ECS-VDB) for ECS releases 6A/6B through deployment/SRA. This includes management, development, maintenance, and augmentation of the ECS VDB and schema. In addition, close coordination with ECS/ESDIS organizations is required for data entry/updates, custom/web reporting, and QA of new features/VDB updates. This work will be performed in the prime contractor's (Raytheon) facility in Upper Marlboro, Maryland. Office space and computer equipment will be provided in Landover. ESDIS will provide the GFE system at GSFC to host the VDB.
- 5. ECS Test Data/Tools:** Provide technical services in the area of test data/tools management, acquisition, development, conversion, manipulation, and cloning of multiple days of data for ETE science system tests. For future EOS missions (e.g. Aqua, Aura, IceSat, SAGE-III) the contractor shall assist ESDIS project with acquiring and developing representative mission test data/tools which are needed for ESDIS ETE tests and GFE for the EOSDIS science system development contract to validate the support system interfaces and processing. Provide support for the testing and sustaining engineering test activities for the SCTGEN tool. Support the Test Data Support Working Group (TDSWG) by providing test data, test tools, understanding ECS GFE needs, test data analysis. This support will require close coordination and interaction with ESDIS and various ECS offices. Office space and computer equipment will be provided in Landover. The work will be primarily performed on-site at GSFC using a GFE provided test data development environment.
- 6. ECS Transitions:** Provide technical support for the preparation of hardware and software transition activities at the DAACs and with the ECS development facility. This includes the investigation, coordination, resolution, and reporting for transition activities. This support will require close coordination and interaction with ESDIS, the DAACs, and various ECS offices. This work may require travel to the various data centers.
- 7. Infrastructure Tools:** Maintain existing ESDIS existing databases and webpages (e.g. Data Management system, Whiteboard, Sysstat, Action Items DB, Data Reorder tool, Data Loss tool, and Aqua Web Pages. Provide support for the development of additional web pages or databases as needed to support EOSDIS development and integration activities.
- 8. ERB:** Assist with the operations of the ESDIS/ECS Review Board (ERB), preparing summaries of the discussions and maintaining action item status in the ERB database.

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STATEMENT OF WORK (cont.):

EOSDIS Development Engineering

- 1. Document Reviews:** Review, analyze, and evaluate requirements, design specifications, and test documentation for the EOSDIS science data system development.
- 2. Design Reviews:** Participate in code walkthroughs, design reviews, and reviews of EOSDIS science data systems
- 3. Development I&T:** Review the integration and testing activities of the EOSDIS science system development activities; assess the thoroughness of integration and test processes, witness testing and provide assessment of the test results.

Science Standards Development

- 1. Participate in the NASA and CEOS technical team efforts** in the definition of the CEOS WGISS Test Environment (WTE) architecture and service specifications.
- 2. Coordinate with CEOS Agencies and GOF C science teams** on the iterative development of a GOF C WTE to support GOF C.
- 3. Participate in the CEOS WGISS CINTEX and Data Services Subgroups** as needed to facilitate the development of standards needed in the development of WTE and metadata needed to describe services.
- 4. Participate in the OpenGIS Technical Committee and Web Map Testbed meetings** in the areas of Cataloging, Services Architecture and Metadata, and XML Technologies.
- 5. Participate in various Geographic oriented standards groups** such as TC211, FGDC, and the OpenGIS consortium to ensure that standards developed will enable the effective utilization of Earth Observation Data.
- 6. Track important emerging technologies** related to future versions of EOSDIS or Federation pull side (e.g. XML, CORBA) to assist future pull side development activities.
- 7. Participate in the IEEE Geoscience and Remote Sensing Society's Data Standardization and Distribution Committee,** chairing the committee.

APPLICABLE DOCUMENTS:

- Office of Management and Budget (OMB) Circular No. A-130, Appendix III, February 1996
- National Institute of Standards and Technology (NIST) Special Publication 800-12, "An Introduction to Computer Security: The NIST Handbook"
- NASA Procedures and Guidelines, Security of Information Technology, NPG 2810.1, August 26, 1999

NOTE: All ESDIS science system contractual documents are applicable and can be found on the ESDIS document server (http://spsosun.gsfc.nasa.gov/ESDIS_Pub.html) or the ECS Data handling System (EDHS - <http://edhs1.gsfc.nasa.gov>). ECS documents include SOW, ECS F&PRS, ECS Design and operations documents, ECS IRDs/ICDs, ECS Verification Database, ECS VDB CCRs, ECS Test Plans, ECS Test Procedures, ECS Site Verification Reports.

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PERFORMANCE SPECIFICATIONS:

1. **Science system requirement management:** Acceptable performance will be assessed based on how well the support provided contributes to the maintenance and accuracy of EOSDIS science system requirements and specifications, including F&PRS, IRDs, ICDs, and DFCDs.
2. **Science Systems Integration Services:** Acceptable performance will be assessed based on how well the ESODIS science systems integration services result in timely investigation, coordination, resolution, and reporting for activities in support of Landsat-7, Terra, Aqua, ICESAT, and Aura missions.
3. **Security:** Acceptable performance will be evaluated based on an improved "security report card" and improved security procedures/coordination.
4. **ECS VDB:** Acceptable performance is will be assessed based on the integrity and accuracy of the data maintained in the VDB to reflect the ECS requirements, the test program and the verification results. This includes timely implementation of ECS VDB CCRs, data entry updates, custom/standard reports and responses to ECS/ESDIS user requests. VDB data analysis requests should be concise, readable, and contain a summary. Detailed backup information should be provided, if necessary.
5. **ECS Test Data/Tools:** Acceptable performance will be assessed against how well test data requests and test tools comply with ICDs and data model standards. Additionally, timely delivery od data requests will be an evaluation factor. For SCTGEN, EOSDIS data manipulation/generation. This includes providing timely feedback for enhancement and prioritization of the DRs.
6. **ECS Transitions:** Acceptable performance will be assessed against how the contributions of the contractor contribute to the smooth transitions at the operational sites.
7. **Infrastructure Tools:** Acceptable performance will be assessed based on the usability and accuracy of the databases and tools developed to support the ESDIS project.
8. **ERB:** Acceptable performance will be assessed based on the accuracy of the meeting minutes and completeness of the ERB database status.
9. **Science Data Processing System development analysis:** Acceptable performance is that the requirements, design, integration and test activities for the EOSDIS science data system development are accurately reviewed and evaluated in a timely manner.
10. **CEOS Participation:** Acceptable performance is that the CIP specification is extended accurately and with minimal errors through participation in the CEOS group.
11. **Standard Groups Participation:** Acceptable performance is that the standards developed from various geographic oriented standards groups such as FGDC, and the OpenGIS consortium are accurate and enable the effective utilization of Earth Observance Data.
12. **Emerging Technology Tracking:** Acceptable performance is that the emerging technologies related to future version of ECS or Federation pull side (e.g., XML, CORBA) are tracked accurately with minimal errors to assist future pull side development activities.

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MILESTONES/DELIVERABLES AND DATES:

General:

1. Provide recommendations for improvements as white papers or e-mail messages as necessary.
2. Provide regular reports of progress and issues on a monthly basis or more frequently if there are issues that require attention.

System Engineering

1. Provide revisions/updates/comments to requirement documents to support the ESDIS CCB process. The delivery of these updates or comments varies on the order of days to weeks with the schedule defined by the ESDIS ICWG/CCB process.
2. Provide daily engineering services to support ESDIS with EOSDIS science systems interface integration, Aqua MOSS tests and Flight Project test coordination activities.
3. For the security implementation work, develop a "security report card", provide input to security procedures/coordination, provide weekly report of status/progress in meeting security goals, and prepare presentations/analysis reports (as required).
4. VDB: Provide custom (as necessary) and automated web based access reports to the VDB contents. Provide custom reports in support of ECS 6A/6B TRRs (10/00, 1/01), CSRs(12/00, 3/01), and SRAs (3/01, 6/01) for ECS releases. Provide L3 reconciliation report; incremental updates as needed and final by 6/01. Provide verification logs within 1 week of starting verification. Perform verification of VDB and web interface updates within 1 week for minor changes and 2 weeks for major enhancements. Provide data entry updates within 1-2 days depending on the magnitude of the updates requested.
5. Test data/tools: Attend TDSWGs and ETS SCTGEN DR board meetings bi-weekly. Provide timely delivery in response to test data requests for interface tests and EOSDIS ETE tests (e.g. SCTs, MOSS).
6. ECS transitions: Support the ECS hardware capacity upgrade (forth quarter CY2000), release 65 COTS upgrade (summer 2001)
7. Create or provide updates to existing tools and web pages within one week of request.
8. Provide summaries of the ERB meetings within one week of the meeting and coordinate the updated status of ERB open items in the ERB database.

Development Engineering

1. Provide EOSDIS science systems development status on code walkthroughs, design reviews, unit testing and development I&T activities in e-mail to the ESDIS development organization leads, on a regular basis (e.g. bi-monthly or more frequently as required)

Science Standards Development:

1. Report on WGISS Test Environment Technical Team Meeting -12/29/00
2. Preliminary WGISS Test Environment Conceptual Architecture - 1/31/01
3. Preliminary Online Services Metadata Schema - 3/30/01
4. WGISS Test Environment Conceptual Architecture - 5/31/01
5. Online Services Metadata Schema - 7/31/01
6. WGISS Test Environment Briefing - 9/15/01

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TRAINING, TRAVEL, CONFERENCES

1. Visit each DAAC facility twice to participate in security working group meetings, DAAC quarterly meetings, or other security-related activity.
2. OGC technical committee in San Rapael Ca. (4days) 12/00, Atlanta (4 days) 2/01, Geneva Switzerland (4 days) 4/01, Los Angeles (4 days) 7/01
3. GOF/WTE meeting Milan Italy (5 days) 7/01
4. CEOS meeting Frankfort Germany (5 days) 4/01
5. GRSS Administration Committee meeting in Tampa (11/00)
6. GHRSS Administration Committee and IGARSS meetings (Alburquerque 2/01, and Sidney Australia 7/01)
7. Attend two security conferences to be specified at a future date.
8. Attend FileMaker Pro training in Boston (6/01)
9. Attend FEDWEB conference (4/01)
10. Attend introductory and intermediate Java (2/01) and XML (3/01)

TASK END DATE: 9/30/01

PERFORMANCE STANDARDS:

- Schedule: On-time delivery/completion of the deliverables/milestones
- Technical: ATR's acceptance of the above

FINAL DELIVERY DESTINATION (NAME, BLDG, ROOM):

Glenn Iona, building 32, room E230C