

**ENCORE II TASK ORDER (TO) PERFORMANCE WORK STATEMENT (PWS)
as of 23 March 2009**

Contract Number:	<i>(completed by the KO at time of TO award)</i>
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ENCORE II Tracking Number:	E200201.00
Follow-on to ENCORE II Contract and Task Order Number:	

1. Task Monitors (TMs).

a. Primary TM.

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b. Alternate TM. N/A

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2. Task Order Title. Theater Overhead Radar Downlink Demo

3. Background. The US needs a near-term solution to pressing needs for theater overhead high resolution SAR imagery, as described in the USD(AT&L) ADM released in July 2008. Northrop Grumman (NGC) and Israel Aerospace Industries (IAI) have offered a derivative of the IAI TecSAR radar imaging satellite, known as "Trinidad," to demonstrate support of these US government requirements. In 2008, NGC and IAI completed internally-funded imaging demonstrations using the on-orbit TecSAR satellite, and provided sample data to US customers for quality evaluation. The Government's next step is to evaluate the utility of theater overhead radar imagery, (similar to the Trinidad capability), delivered directly to US warfighters, in a realistic operational context.

4. Objectives: This project will demonstrate the potential utility of a currently-available space radar system in meeting US warfighter requirements for affordable, responsive overhead radar imagery. The demonstration will be performed in the context of OSD's THUNDERSTORM ISR test bed operational experiment at JIATF-South, using operationally realistic targets, tasking cycles, and environments. The demonstration will include US-designated tasking of a contractor accessed, on-orbit radar satellite, fol-

lowed by downlinking of image data directly from the satellite to a contractor-furnished mobile CONUS ground station (nominally co-located at JIATF-S). The data will be processed at the contractor ground station into a JITC-standard US imagery format for exploitation. The demonstration will support THUNDERSTORM Spiral 2, starting o/a 28 May 09.

5. Scope. This task allows an operational evaluation for theater overhead radar with direct-downlink capability, using an existing satellite asset. The scope includes integration and test of the overhead radar CONUS ground station, exercise planning support to the JIATF-S operators, and test execution including on-site downlink operation and image data exploitation support. The contractor will furnish all of the required hardware and software components, at no cost to the government, as well as imagery data licenses as required to meet demo objectives. The contractor's integrated ground station equipment will not be deliverable; but will be made accessible as required for US utility evaluation. The imagery data is not deliverable in the base effort, but there is a follow-on option task for delivery of the data. This work is applicable to the ENCORE contract task areas identified below.

- **Task Area 5 – Requirements Analysis**
- **Task Area 6 – Market Research and Prototyping**
- **Task Area 8 – Custom Application Development**
- **Task Area 9 – Product Integration**
- **Task Area 10 – Test and Evaluation**

6. Performance Requirements.

6.1 Task 1 – Program Management

The Contractor shall appoint a program manager with authority over all technical, cost, and budgetary decisions. The Contractor shall provide monthly technical, schedule, and financial status to government management. Additionally, the Contractor shall provide status as directed by the government at program milestones.

Deliverables

Monthly Technical and Financial Status Report

6.2 Task 2 – Satellite Ground Terminal integration & test

The Contractor shall integrate and test Contractor-furnished ground equipment (communications equipment, antennas, image processing computers) into a deployable satellite ground terminal capable of receiving and processing SAR data directly downlinked from the radar satellite.

The Contractor shall deploy the ground terminal described above to a CONUS site mutually agreed-to by the Contractor, OSD(AT&L)/RRTO, and end users (JIATF-S), to support THUNDERSTORM exercise activities.

Deliverables

Presentation summarizing ground terminal performance

6.3 Task 3 – Exercise Support

The Contractor shall provide on-site technical support to demonstrate theater direct downlink of raw SAR data from the imaging radar satellite at THUNDERSTORM Spiral 2.

Deliverables

Demonstration of overhead radar data direct downlink

6.4 Task 4 – Technical Plans, Reports, and Reviews

The Contractor shall deliver a draft test plan for collection of radar imaging data at THUNDERSTORM Spiral 2, and support a test plan review at a site designated by the customer within 30 days of ATP.

The Contractor shall deliver a test outcome report within 30 days of completion of THUNDERSTORM Spiral 2.

The Contractor shall support telecon meetings as required to coordinate and execute the THUNDERSTORM Spiral 2 demonstration plan with the test conductors and Users.

Deliverables

Test Plan for THUNDERSTORM Spiral 2

Test Outcome Report for THUNDERSTORM Spiral 2

Telecon meetings

6.5 Task 5 – THUNDERSTORM Spiral 3 (Option)

The Contractor shall deliver a draft test plan for collection of theater overhead radar data at THUNDERSTORM Spiral 3, and support a review at a site designated by the customer within 30 days of option ATP.

The Contractor shall deliver a test report within 30 days of completion of THUNDERSTORM Spiral 3.

The Contractor shall support telecon meetings as required to coordinate and execute the THUNDERSTORM Spiral 3 demonstration plan with the test conductors and Users.

The Contractor shall provide on-site technical support as required to demonstrate theater overhead imaging radar utility at THUNDERSTORM Spiral 3.

Deliverables

Test Plan for THUNDERSTORM Spiral 3

Test Outcome Report for THUNDERSTORM Spiral 3

Telecon meetings

6.6 Task 6 – Image Data Delivery (Option)

The Contractor shall process and deliver SAR image data in a standard format mutually agreed-to by the Contractor and Users for THUNDERSTORM Spirals 1, 2, and 3. If not otherwise specified, the Contractor will deliver complex-valued SAR image data in U.S. National Imagery Technical Format, version 2.1 (NITF 2.1).

Deliverables

SAR image data for all THUNDERSTORM Spirals (nominally in NITF 2.1 format)

7. Performance Standards.

The Contractor shall respond to customer within 5 working days of receipt of comments.

The Contractor shall update documents within 10 working days of receipt of customer comments.

8. Incentives. If the contractor does not resolve 95% of the comments satisfactorily for the government, government ratings shall be adjusted to indicate the lack of performance.

9. Place of Performance. Work will be performed at the contractor's facilities; and at the Key West, FL JIATF-South site. Travel to Key West or other demo site as directed will be required for 4-5 people during the exercise period. Travel to Key West or other locations will be required as directed for 1-2 people to support test planning meetings and reviews. Travel will be authorized by the Government Task Monitor and IAW the Joint Travel Regulations (JTR), and FAR 31.205-46. The contractor's request shall be in writing and contain the dates, locations, and estimated cost of travel. Travel costs are estimated at \$50,000.00. The contractor may bid other material ODC costs and are requested to specify a Material ODCs bill of materials. Travel ODCs will be cost reimbursable, Material ODCs will be FFP.

10. Period of Performance. The base period of performance will be 30 April 2009 through 14 October 2009. An optional period of performance will be from 15 October 2009 through 14 February 2010.

11 Delivery Schedule.

SOW Sub-task#	Deliverable Title	Format	Number	Delivery
6.1	Technical and Financial Status Report	Contractor and EPTS	6 (base) 4 (option)	Monthly
6.2	Presentation summarizing ground terminal performance	Contractor	1	ATP + 30
6.3	Demonstration of overhead radar data direct downlink during THUNDERSTORM Spiral 2	Contractor	1	ATP + 30
6.4	Test Plan for THUNDERSTORM Spiral 2	Contractor	1	ATP + 30
6.4	Test Outcome Report for THUNDERSTORM Spiral 2	Contractor	1	ATP + 90
6.4	Telecon meetings	N/A	As directed by the government	As directed by the government
6.5	Test Plan for THUNDERSTORM Spiral 3	Contractor	1	OPTION TBR
6.5	Test Outcome Report for THUNDERSTORM Spiral 3	Contractor	1	OPTION TBR
6.6	SAR Image Data Sets	NITF 2.1 or as directed by the government	3	OPTION TBR

12. Security. The requirements of this task order require contractor access up to and including SECRET/Foreign Government Information (FGI). Contractor personnel performing on this task order must possess a security clearance and provide proof of clearance. ENCORE II Basic DD FM 254 is applicable.

13. Government-Furnished Equipment (GFE)/Government-Furnished Information (GFI). The Government will provide the contractor access to the Government information required to satisfy the task order's technical requirements defined in paragraph 6.

14. Other Pertinent Information or Special Considerations.

- a. Identification of Possible Follow-on Work. It is anticipated that follow-on orders may be awarded as a result of work performed under this task order.
- b. Identification of Potential Conflicts of Interest (COI). None noted at this time.
- c. Identification of Non-Disclosure Requirements. Non-disclosure agreements will be established between the Contractor and Israel Aerospace Industries.
- d. Packaging, Packing and Shipping Instructions. None noted at this time.
- e. Inspection and Acceptance Criteria. None noted at this time.
- f. Availability of Contractor-Furnished Equipment. Contractor shall furnish ground equipment and software for communications with the satellite and processing of the image data. Contractor shall account for ODC for shipping and insuring the furnished equipment as required.
- g. Import/Export Control. Contractor must have a Technical Assistance Agreement and sub-licenses as required to receive foreign equipment and data in compliance with ITAR.
- h. Communications License. Contractor must have an FCC-approved license or special temporary authority for downlinking satellite data to all test and demonstration sites.

15. Section 508 Accessibility Standards. The following Section 508 Accessibility Standard(s) (Technical Standards and Functional Performance Criteria) are applicable (if box is checked) to this acquisition.

Technical Standards

- ☐ 1194.21 - Software Applications and Operating Systems
- ☐ 1194.22 - Web Based Intranet and Internet Information and Applications
- ☐ 1194.23 - Telecommunications Products
- ☐ 1194.24 - Video and Multimedia Products
- ☐ 1194.25 - Self-Contained, Closed Products
- ☐ 1194.26 - Desktop and Portable Computers
- ☐ 1194.41 - Information, Documentation and Support

The Technical Standards above facilitate the assurance that the maximum technical standards are provided to the Offerors. Functional Performance Criteria is the minimally acceptable standards to ensure Section 508 compliance. This block is checked to ensure that the minimally acceptable electronic and information technology (E&IT) products are proposed.

Functional Performance Criteria

☐ 1194.31 - Functional Performance Criteria