

# ORDER FOR SUPPLIES OR SERVICES

1. CONTRACT/PURCH. ORDER/ AGREEMENT NO. <b>DASG60-02-D-0014</b>	2. DELIVERY ORDER/ CALL NO. <b>007601</b>	3. DATE OF ORDER/CALL (YYYYMMDD) <b>2004 Apr 19</b>	4. REQ./ PURCH. REQUEST NO.  MIPR4FOPSD2091-01	5. PRIORITY
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6. ISSUED BY US ARMY SPACE & MISSILE DEFENSE COMMAND P.O. BOX 1500 HUNTSVILLE AL 35807-3801	CODE W9113M	7. ADMINISTERED BY (if other than 6) DCMA HUNTSVILLE BUILDING 4505, SUITE 301 MARTIN ROAD REDSTONE ARSENAL AL 35898-0001	CODE S0107A	8. DELIVERY FOB <input checked="" type="checkbox"/> DESTINATION <input type="checkbox"/> OTHER  (See Schedule if other)
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9. CONTRACTOR DYNETICS, CAS & DAVIDSON, LLC 990 EXPLORER BLVD HUNTSVILLE AL 35806	CODE <b>1VDA4</b>	FACILITY	10. DELIVER TO FOB POINT BY (Date) (YYYYMMDD) <b>SEE SCHEDULE</b>	11. MARK IF BUSINESS IS <input checked="" type="checkbox"/> SMALL <input type="checkbox"/> SMALL DISADVANTAGED <input type="checkbox"/> WOMEN-OWNED
NAME AND ADDRESS			12. DISCOUNT TERMS	13. MAIL INVOICES TO THE ADDRESS IN BLOCK <b>See Item 15</b>

14. SHIP TO  <b>SEE SCHEDULE</b>	CODE	15. PAYMENT WILL BE MADE BY DFAS-COLUMBUS CENTER DFAS-CO/SOUTH ENTITLEMENT OPERATION P.O. BOX 182264 COLUMBUS OH 43218-2264	CODE HQ0338	<b>MARK ALL PACKAGES AND PAPERS WITH IDENTIFICATION NUMBERS IN BLOCKS 1 AND 2.</b>
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16. TYPE OF ORDER	DELIVERY/ CALL	<input checked="" type="checkbox"/>	This delivery order/call is issued on another Government agency or in accordance with and subject to terms and conditions of above numbered contract.
	PURCHASE	<input type="checkbox"/>	Reference your quote dated Furnish the following on terms specified herein. REF:

ACCEPTANCE. THE CONTRACTOR HEREBY ACCEPTS THE OFFER REPRESENTED BY THE NUMBERED PURCHASE ORDER AS IT MAY PREVIOUSLY HAVE BEEN OR IS NOW MODIFIED, SUBJECT TO ALL OF THE TERMS AND CONDITIONS SET FORTH, AND AGREES TO PERFORM THE SAME.

NAME OF CONTRACTOR	SIGNATURE	TYPED NAME AND TITLE	DATE SIGNED (YYYYMMDD)
<input type="checkbox"/> If this box is marked, supplier must sign Acceptance and return the following number of copies:			

17. ACCOUNTING AND APPROPRIATION DATA/ LOCAL USE  
**See Schedule**

18. ITEM NO.	19. SCHEDULE OF SUPPLIES/ SERVICES	20. QUANTITY ORDERED/ ACCEPTED*	21. UNIT	22. UNIT PRICE	23. AMOUNT
<b>SEE SCHEDULE</b>					

* If quantity accepted by the Government is same as quantity ordered, indicate by X. If different, enter actual quantity accepted below quantity ordered and encircle.	24. UNITED STATES OF AMERICA	25. TOTAL <b>\$388,000.00</b>
		26. DIFFERENCES

27a. QUANTITY IN COLUMN 20 HAS BEEN  
 INSPECTED     RECEIVED     ACCEPTED, AND CONFORMS TO THE CONTRACT EXCEPT AS NOTED

b. SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE	c. DATE (YYYYMMDD)	d. PRINTED NAME AND TITLE OF AUTHORIZED GOVERNMENT REPRESENTATIVE
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e. MAILING ADDRESS OF AUTHORIZED GOVERNMENT REPRESENTATIVE	28. SHIP NO.	29. DO VOUCHER NO.	30. INITIALS
f. TELEPHONE NUMBER	g. E-MAIL ADDRESS		32. PAID BY <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL
33. AMOUNT VERIFIED CORRECT FOR			

**36. I certify this account is correct and proper for payment.**

a. DATE (YYYYMMDD)	b. SIGNATURE AND TITLE OF CERTIFYING OFFICER
31. PAYMENT <input type="checkbox"/> COMPLETE <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL	
34. CHECK NUMBER	
35. BILL OF LADING NO.	

37. RECEIVED AT	38. RECEIVED BY	39. DATE RECEIVED (YYYYMMDD)	40. TOTAL CONTAINERS	41. S/R ACCOUNT NO.	42. S/R VOUCHER NO.
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Section B - Supplies or Services and Prices

ITEM NO	SUPPLIES/SERVICES	MAX QUANTITY	UNIT	UNIT PRICE	MAX AMOUNT
0001	SETAC - FP Labor COST	1	Lot	UNDEFINED	UNDEFINED
	Provide services outlined in the scope of work (SOW), as defined in a given task order (T/O), at the fixed prices/government labor category specified in Section B paragraph entitled, "GOVERNMENT LABOR CATEGORIES AND ASSOCIATED FIXED PRICES PER DPPH"				
	PURCHASE REQUEST NUMBER: MIPR4FOPSD2091-01				
				MAX COST	\$378,000.00

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	MAX QUANTITY	UNIT	UNIT PRICE	MAX AMOUNT
0003	Consultants COST	1	Lot	UNDEFINED	UNDEFINED
	Provide services outlined in the scope of work (SOW) at the cost reimbursable amounts as approved on a task-order-by-task-order basis. Total Fee, including prime and subcontractor/consultant, shall not exceed 3% of the estimated costs. This CLIN is valid during the three-year base period as well as any/all award term extensions earned by the contractor.				
	PURCHASE REQUEST NUMBER: MIPR4FOPSD2091-01				
				MAX COST	\$0.00

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	MAX QUANTITY	UNIT	UNIT PRICE	MAX AMOUNT
0004		1	Lot	UNDEFINED	UNDEFINED

Materials and STE  
COST

Provide materials, special test equipment (STE), and associated services outlined in the individual task orders at the cost reimbursable amounts as approved by the T/OM and the Contracting Officer. NO FEE ON THIS CLIN. This CLIN is valid during the three-year base period as well as any/all award term extensions earned by the contractor.

PURCHASE REQUEST NUMBER: MIPR4FOPSD2091-01

MAX COST \$0.00

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	MAX QUANTITY	UNIT	UNIT PRICE	MAX AMOUNT
0005		1	Lot	UNDEFINED	UNDEFINED

Travel  
COST

Travel as directed in the individual task orders. Travel must be completed within the cost reimbursable amounts allowed per the Joint Travel Regulations and the DCAA-approved Company-Implemented Policy and Procedures. NO FEE ON THIS CLIN. This CLIN is valid during the three-year base period as well as any/all award term extensions earned by the contractor.

PURCHASE REQUEST NUMBER: MIPR4FOPSD2091-01

MAX COST \$10,000.00

FOB: Destination

BLOCK 17/BLOCK 18 CONTINUED  
BLOCK 17 (DD1155) CONTINUED:

TASK ORDER FUNDS REQUIRED	\$388,000
TASK ORDER FUNDS AVAILABLE	\$388,000
UNFUNDED BALANCE	\$-0-

ACRN AA: O&M Funding – Expiration of \$388,000: 18 Apr 05.

BLOCK 18 (DD1155) CONTINUED: In the performance of this Task Order (T/O), the contractor shall provide the total Direct Productive Person Hours (DPPHs), plus or minus 10 percent, as stated for fixed-price labor categories

stated in Section B of the contract listed in Block 1 of the DD Form 1155. These DPPHs shall be billed at the fixed price stated in Exhibit V of the contract. The contractor shall not exceed the DPPHs, nor the total dollars, stated for consultant below. The contractor is allowed to provide up to 10 percent less than the DPPHs stated for consultant and still expend the total dollars as stated in the T/O. Furthermore, under no circumstance shall the contractor exceed the dollars stated for Materials, Travel, or Total T/O.

LABOR CATEGORIES: Labor categories are as listed in the contract, Section B, paragraph entitled "GOVERNMENT LABOR CATEGORIES AND ASSOCIATED FIXED PRICES PER DPPH"

	DPPHs ORDERED	NTE AMOUNT
FIXED-PRICE LABOR TOTAL	 DPPHs	\$378,000
*CONSULTANT TOTAL	 DPPHs	\$0
T/O TOTAL LABOR	 DPPHs	\$378,000
MATERIAL	NTE	\$ 0
TRAVEL	NTE	\$ 10,000
T/O TOTAL		\$388,000

\*Consultant requirements must have prior written approval of the Administrative Contracting Officer (ACO) (via subcontract consent package) before any costs are incurred under the consultant CLIN.

## Section C - Descriptions and Specifications

### STATEMENT OF WORK

#### “SPACE SERVER CONCEPT” Statement of Work

##### 1.0 Objective

Design a space server concept capability for federated models through a computer network. The immediate focus is to design an ability to allow federates to remotely request one or more satellite constellations of a particular configuration and have the physical states of those satellites published to the federation. The space server shall also be able to report when an area of interest is in line of site of a specified satellite or constellation.

##### 2.0 Scope

The scope of this effort includes three major components:

2.1 The actual satellite server design. This will serve as a single entry point to connect to a federation. The satellite server will receive requests to instantiate satellite constellations and create separate simulation processes as needed on a local area network. These simulations will report requested data to the federation via the server. The Unmanned Air Vehicle (UAV) Air Mobility Server (AMS) that was implemented for the Air & Missile Research, Engineering Center (AMRDEC) will provide an example and may also provide some reusable code. The AMS will be a part of the RDEC Modeling Architecture for Technology and Research Experimentation (MATREX) federation.

2.2 The Satellite Modeling and Analysis Tool, SMAT, will provide initial satellite propagation and field of regard calculations. The satellite server will be constructed in a modular manner to allow the potential for future expansion or alternate satellite propagation models. SMAT will be integrated with the Joint Modeling and Simulation System (JMASS). The socket interface to SMAT may be extended to allow remote definition of constellations.

2.3 The JMASS simulation environment will serve as an integration environment. It will provide a modular simulation layer between the server itself and any modules plugged in to handle actual calculations. This will provide greater modularity and extensibility than relying on connecting satellite models directly to the satellite server. This modularity may allow the inclusion of sensor models or communications and networking models in the future. One potential opportunity would be to leverage the existing NetFires JMASS Communications Server to determine data link closure and latencies.

##### 3.0 Background

There is a need to have the ability to include satellite representations in a federated simulation in order to improve Intelligence Surveillance and Reconnaissance (ISR) and communications modeling in exercises and experiments. A centralized satellite server will help avoid duplication of effort through the creation and federation of multiple satellite propagation codes

##### 4.0 Tasks/Technical Requirements

The contractor shall accomplish the following:

4.1 Requirements Definition: Determine the approach to provide space information into exercise and experiments.

4.2 Methodology Development: Develop a methodology to integrate the space server in a federate.

4.3 Implementation: Federate the server into an exercise.

4.4 Testing: Test the space server to validate the functionality and confirm data support requirements.

4.5 Documentation: Provide documentation of the requirements determination results, detailed methodology, and User's Manual to support configuration management, future verification, validation, and accreditation efforts and user training.

PERIOD OF PERFORMANCE

19 April 2004 – 31 May 2005

KEY PERSONNEL

TBD

DELIVERABLES

DELIVERABLES:

Item/Title	CDRL#	# Copies	Delivery Date
Task Order Management Plan	A001	1 *	Per CDRL
FMER	A003	1 *	Per CDRL
Full Design Document	A005	1 *	31 May 2005
Quarterly Transmittal Listing	A007	1	Per CDRL

\* Plus Electronic Version.

TRAVEL

ESTIMATED TRAVEL: Except for the locations listed below, the contractor has no authority to incur travel costs without explicit prior written approval (email acceptable) of the Task Order Monitor. The contractor is not authorized to travel outside the United States without the explicit written approval (email acceptable) of the contracting Officer. Under no circumstance shall the contractor incur travel costs in excess of the NTE amount stated herein. **NTE: \$10,000**

Colorado Springs, CO Ft Knox, KY

MATERIALS

ESTIMATED COST FOR MATERIALS AND/OR SPECIAL TEST EQUIPMENT: The contractor has no authority to incur material costs without the explicit prior written approval of the contracting officer. Prior to forwarding requests to the contracting officer, the contractor shall obtain the Task Order Monitor's concurrence. Electronic Mail (email) shall be utilized for both steps in this process. Under no circumstance shall the contractor incur materials costs in excess of the NTE amount stated herein.

NTE: \$0

SPECIAL INSTRUCTIONS

Cost data shall be segregated/reported/vouchered/paid at the ACRN level.

The "Limitation of Funds" is applicable at the ACRN level.

ACRN AA is O&M funding and must be expended by 18 Apr 2005.

The effort described in the Task Order Statement of Work anticipated to be performed in FY04 and FY05 is subject to the Clause at FAR 52.232-18, Availability of Funds.

All of the terms and conditions of the contract listed in Block 1 above are applicable to this T/O.

All of the provisions and clauses of the contract listed in Block 1 above are applicable to this T/O.

No Government Furnished Property or Test Facilities are available for use in performance of this Task Order.

It is incumbent upon the contractor and/or subcontractor to ensure that appropriate Technical Assistance Agreements (TAAs) and/or applicable export licenses are in place before conducting any activity under the SOW which requires such approval and documentation.

DISTRIBUTION

TASK ORDER MONITOR: [REDACTED]

MAILING ADDRESS: [REDACTED]

Section G - Contract Administration Data

ACCOUNTING AND APPROPRIATION DATA

AA: 214 2020 0000 22 2010122018.0000252GVMSO00MIPR4FOPSD2091D2CRRA S23185  
AMOUNT: \$388,000.00