

AWARD/CONTRACT		1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 350)		RATING	PAGE OF PAGES 1 25		
2. CONTRACT (Proc. Inst. Ident.) NO. HR0011-09-C-0034		3. EFFECTIVE DATE 08 Dec 2008		4. REQUISITION/PURCHASE REQUEST/PROJECT NO. SEE SCHEDULE			
5. ISSUED BY DARPA CMO ATTN: NATALY STUARD 3701 N. FAIRFAX DR ARLINGTON VA 22203-1714		CODE HR0011	6. ADMINISTERED BY (If other than Item 5) DCMA SAN DIEGO 7675 DAGGET STREET SUITE 200 SAN DIEGO CA 92111-2241		CODE S0514A		
7. NAME AND ADDRESS OF CONTRACTOR (No., street, city, county, state and zip code) GENERAL ATOMICS 3550 GENERAL ATOMICS CT SAN DIEGO CA 92121-1122			8. DELIVERY [] FOB ORIGIN [X] OTHER (See below)		9. DISCOUNT FOR PROMPT PAYMENT		
CODE 4V360 FACILITY CODE			10. SUBMIT INVOICES (4 copies unless otherwise specified) TO THE ADDRESS SHOWN IN:				
11. SHIP TO/MARK FOR ARMY RESEARCH OFFICE DR. ROBERT MANTZ P.O. BOX 12211 RESEARCH TRIANGLE PARK NC 27709-2211		CODE W911NF	12. PAYMENT WILL BE MADE BY DFAS COLUMBUS CENTER WEST ENTITLEMENT OPERATIONS P.O. BOX 182381 COLUMBUS OH 43218-2381		CODE HQ0339		
13. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: [] 10 U.S.C. 2304(c)() [] 41 U.S.C. 253(c)()			14. ACCOUNTING AND APPROPRIATION DATA See Schedule				
15A. ITEM NO.	15B. SUPPLIES/ SERVICES	15C. QUANTITY	15D. UNIT	15E. UNIT PRICE	15F. AMOUNT		
SEE SCHEDULE							
15G. TOTAL AMOUNT OF CONTRACT					\$19,946,886.00		
16. TABLE OF CONTENTS							
(X)	SEC.	DESCRIPTION	PAGE(S)	(X)	SEC.	DESCRIPTION	PAGE(S)
PART I - THE SCHEDULE				PART II - CONTRACT CLAUSES			
X	A	SOLICITATION/ CONTRACT FORM	1	X	I	CONTRACT CLAUSES	20 - 24
X	B	SUPPLIES OR SERVICES AND PRICES/ COSTS	2 - 3	PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS			
X	C	DESCRIPTION/ SPECS/ WORK STATEMENT	4 - 6	X	J	LIST OF ATTACHMENTS	25
X	D	PACKAGING AND MARKING	7	PART IV - REPRESENTATIONS AND INSTRUCTIONS			
X	E	INSPECTION AND ACCEPTANCE	8	K	REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF OFFERORS		
X	F	DELIVERIES OR PERFORMANCE	9 - 11		L	INSTRS. CONDS. AND NOTICES TO OFFERORS	
X	G	CONTRACT ADMINISTRATION DATA	12 - 14	M	EVALUATION FACTORS FOR AWARD		
X	H	SPECIAL CONTRACT REQUIREMENTS	15 - 19				
CONTRACTING OFFICER WILL COMPLETE ITEM 17 OR 18 AS APPLICABLE							
17. [X] CONTRACTOR'S NEGOTIATED AGREEMENT (Contractor is required to sign this document and return 2 copies to issuing office.) Contractor agrees to furnish and deliver all items or perform all the services set forth or otherwise identified above and on any continuation sheets for the consideration stated herein. The rights and obligations of the parties to this contract shall be subject to and governed by the following documents: (a) this award/contract, (b) the solicitation, if any, and (c) such provisions, representations, certifications, and specifications, as are attached or incorporated by reference herein. (Attachments are listed herein.)				18. [] AWARD (Contractor is not required to sign this document.) Your offer on Solicitation Number _____			
19A. NAME AND TITLE OF SIGNER (Type or print) (b)(4), (b)(6) Rose Marie Garner Contracts				20A. NAME OF CONTRACTING OFFICER N. Tina Stuard			
19B. NAME OF CONTRACTOR (b)(4), (b)(6) Rose Marie Garner		19C. DATE SIGNED 2 DEC 08		20B. (b)(6) UNITED STATES OF AMERICA			
BY (b)(4), (b)(6) Rose Marie Garner <small>(Signature of person authorized to sign)</small>		BY (b)(6) N. Tina Stuard <small>(Signature of Contracting Officer)</small>		20C. DATE SIGNED 8 Dec 08			

Section B - Supplies or Services and Prices

ITEM NO	SUPPLIES/SERVICES	ESTIMATED COST	FIXED FEE	TOTAL EST. COST PLUS FIXED FEE
0001	Phase I - Algal-derived JP-8 Surrogate CPFF The contractor shall accomplish the taskings in accordance with the Statement of Work, included as Attachment No. 1 to this contract. FOB: Destination	(b)(4) \$28,276.00	(b)(4) \$8,610.00	\$19,946,886.00
			0	\$19,946,886.00

ITEM NO	SUPPLIES/SERVICES	ESTIMATED COST	FIXED FEE	TOTAL EST. COST PLUS FIXED FEE
000101	Funding For CLIN 0001 CPFF FOB: Destination AO No. X729/00	\$0.00	\$0.00	\$0.00
	ACRN AA			\$9,538,150.00

ITEM NO	SUPPLIES/SERVICES	ESTIMATED COST	FIXED FEE	TOTAL EST. COST PLUS FIXED FEE
000102	Funding For CLIN 0001 CPFF FOB: Destination AO No. X729/01	\$0.00	\$0.00	\$0.00 \$0.00
	ACRN AB			\$10,408,736.00

ITEM NO	SUPPLIES/SERVICES	ESTIMATED COST	FIXED FEE	TOTAL EST. COST PLUS FIXED FEE
0002		(b)(4) 2,045,392.00	(b)(4) 4,727.0	\$22,660,119.00
OPTION	Phase II - Algal-derived JP-8 Surrogate CPFF The contractor shall accomplish the taskings in accordance with the Statement of Work, included as Attachment No. 1 to this contract. FOB: Destination		0	\$22,660,119.00

Section C - Descriptions and Specifications

CLAUSES INCORPORATED BY FULL TEXT

C-1 Scope of Work

(a) The Contractor shall furnish the necessary personnel, materials, facilities and other services as may be required to perform Contract Line Item Number (CLIN) 0001, and upon exercise of the option, CLIN 0002 in accordance with the Statement of Work, Attachment 1 hereto, and as specified in the Contractor's proposal entitled "Affordable Algal-derived JP-8 Surrogate", copies of which are in possession of both parties.

(b) In the event of an inconsistency between the provisions of this contract and the Contractor's proposal, the inconsistency shall be resolved by giving precedence in the following order: (1) the contract, (2) the attachments to the contract, and then (3) the Contractor's proposal.
(end of clause)

C-2 Reports and Other Deliverables

(a) The Contractor shall submit the following reports and other deliverables in accordance with the delivery schedule set forth in Section F. Reports and other deliverables shall be submitted in writing, as defined in FAR 2.101, or as specified below:

(1) R&D STATUS REPORT

This brief narrative, not to exceed five pages in length, shall contain the following:

- (i) For first report only, the date work actually started.
- (ii) Description of progress during the reporting period, supported by reasons for any change in approach reported previously
- (iii) Planned activities and milestones for the next reporting period.
- (iv) Description of any major items of experimental or special equipment purchased or constructed during the reporting period.
- (v) Notification of any changes in key personnel associated with the contract during the reporting period.
- (vi) Summary of substantive information derived from noteworthy trips, meetings, and special conferences held in connection with the contract during the reporting period.
- (vii) Summary of all problems or areas of concern.
- (viii) Related accomplishments since last report.
- (ix) Fiscal status, to include reporting of summary level financial data in the following format:
(next page)

R&D STATUS REPORT
PROGRAM FINANCIAL STATUS

Work Breakdown		Cumulative to Date			At Completion	
Structure or Task Element	Planned Expend	Actual Expend	% Budget Compl	At Compl	Latest Revised Estimate	Remarks

Subtotal: _____

Management Reserve: _____

Or Unallocated Resources: _____

TOTAL: _____

Note: Budget at completion changes only with the amount of any scope changes. (Not affected by underrun or overrun)

Based on currently authorized work:

Is current funding sufficient for the current fiscal year (FY)? (Explain in narrative if "NO")

YES NO

What is the next FY funding requirement at current anticipated levels?

\$ _____

Have you included in the report narrative any explanation of the above data and are they cross-referenced?

YES NO

(2) FINAL REPORT

This report shall document the results of the complete effort and should be delivered at the completion of the contract. If the Government chooses to exercise the options under this contract, the due date for the final report is extended accordingly. Title pages shall include a disclaimer worded substantially as follows:

“The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the official policies, either expressly or implied, of the Defense Advanced Research Projects Agency or the U.S. Government.”

The Final Technical Report summary shall include:

Task Objectives
 Technical Problems
 General Methodology (i.e., literature review, laboratory experiments, surveys, etc.)
 Technical Results
 Important Findings and Conclusions
 Significant Hardware Development
 Special Comments
 Implications for Further Research
 Standard Form 298, August 1998

(b) Reports delivered by the Contractor in the performance of the contract shall be considered “Technical Data” as defined in Section I contract clauses entitled “Rights in Technical Data – Noncommercial Items” and “Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation.”

(c) Bulky Reports shall be mailed by other than first-class mail unless the urgency of submission requires use of first-class mail. In this situation, one copy shall be mailed first-class and the remaining copies forwarded by less than first-class.

(d) All papers and articles published as a result of DARPA sponsored research shall include a statement reflecting the sponsorship. In addition, a bibliography of the titles and authors of all such papers are to be included in the Final Technical Report

(1) The cover or title page of each of the above reports or publications prepared, will have the following citation:

Sponsored by
 Defense Advanced Research Projects Agency
 Strategic Technology Office (STO)
 Program: “Affordable Algal-derived JP-8 Surrogate”
 ARPA Order No. X729/00, Program Code: 7620
 Issued by DARPA/CMO under Contract No. HR0011-09-C-0034

(2) The title page shall include a disclaimer worded substantially as follows:

“The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the official policies, either expressly or implied, of the Defense Advanced Research Projects Agency or the U.S. Government.”

(3) All technical reports must (i) be prepared in accordance with American National Standards Institute (ANSI) Standard Z39.18; (ii) include a Standard Form 298, August 1998; and (iii) be marked with an appropriate Distribution Statement.

(end of clause)

Section D - Packaging and Marking

CLAUSES INCORPORATED BY FULL TEXT

D-1 Deliverables under this contract shall be afforded the degree of packaging (preservation and packing) required to prevent damages due to the hazards of shipment and handling. Any hard copy bulky reports shall be mailed by other than first-class mail unless the urgency of submission requires use of first-class mail.

D-2 49 CFR Part 173 is the governing regulation for transporting hazardous substances such as jet fuel.

DOT PROPER SHIPPING NAME: Fuel, Aviation, Turbine Engine

DOT HAZARDOUS CLASS AND PACKING GROUP: 3, PG II

DOT IDENTIFICATION NUMBER: UN 1863

DOT SHIPPING LABEL: FLAMMABLE LIQUID

May be reclassified for transportation as a COMBUSTIBLE LIQUID under conditions of DOT 49 CFR 173.120(b)(2)

(end of clause)

Section E - Inspection and Acceptance

INSPECTION AND ACCEPTANCE TERMS

Supplies/services will be inspected/accepted at:

CLIN	INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
0001	N/A	N/A	N/A	Government
000101	N/A	N/A	N/A	Government
000102	N/A	N/A	N/A	Government
0002	N/A	N/A	N/A	Government

CLAUSES INCORPORATED BY REFERENCE

52.246-8	Inspection Of Research And Development Cost Reimbursement	MAY 2001
----------	---	----------

Section F - Deliveries or Performance

DELIVERY INFORMATION

CLIN	DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
0001	08-JUN-2010		ARMY RESEARCH OFFICE DR. ROBERT MANTZ P.O. BOX 12211 RESEARCH TRIANGLE PARK NC 27709-2211 (919) 549-4309 FOB: Destination	W911NF
000101	08-JUN-2010		(SAME AS PREVIOUS LOCATION) FOB: Destination	W911NF
000102	08-JUN-2010		(SAME AS PREVIOUS LOCATION) FOB: Destination	W911NF
0002	08-DEC-2011		(SAME AS PREVIOUS LOCATION) FOB: Destination	W911NF

CLAUSES INCORPORATED BY REFERENCE

52.242-15 Alt I	Stop-Work Order (Aug 1989) - Alternate I	APR 1984
52.247-34	F.O.B. Destination	NOV 1991

CLAUSES INCORPORATED BY FULL TEXT

F-1 Term of Contract

(a) The term of the contract commences on the effective date of the contract and continues through 18 months months thereafter.

(b) The period of performance for Option 1, as set forth in CLIN 0002, shall be from the effective date of the option exercise through 18 months thereafter.

(end of clause)

F-2 Reports and Other Deliverables

(a) Delivery of all reports and other deliverables shall be made to the addressee specified in F-3 entitled "Report Distribution" in accordance with the following:

Item No.	Description	Due Date (on or before)
----------	-------------	-------------------------

PHASE I:

1.	R&D Report	20 th day of each Month (start 1 mo ADC)
2.	Status Report	20 th day after prior 3-mo reporting period
3.	algal oil to JP-8 - 2-liter fuel sample	effective date + 6 months
4.	algal oil to JP-8 - 2-liter fuel sample	effective date + 9 months
5.	algal oil to JP-8 - 2 liter fuel sample	effective date + 12 months
6.	algal oil to JP-8 - 2-liter fuel sample	effective date + 15 months
7.	algal oil to JP-8 - 100-liter fuel sample	effective date + 18 months
8.	Final Report – Phase I	effective date + 18 months

PHASE II:

9.	Monthly R&D Status Reports	20 th day of each Month
10.	h 2: Status Report	20 th day after prior 3-mo reporting period
11.	algal oil to JP-8 - 10-liter fuel sample	option exercise + 6 months
12.	algal oil to JP-8 - 10-liter fuel sample	option exercise + 9 months
13.	algal oil to JP-8 - 10-liter fuel sample	option exercise date + 12 months
14.	algal oil to JP-8 - 10-liter fuel sample	option exercise date + 15 months
15.	algal oil to JP-8 - 4,000-liter fuel sample	option exercise date + 18 months
16.	Final Report – Phase II	option exercise date + 18 months

(b) Fuel samples shall be shipped to Fuels Branch, Bldg 490, 1790 Loop Road North, Wright-Patterson, OH 45433-7103. See Section D for special transporting requirements. The Contractor shall submit a copy of the shipping label or other document to verify shipment to the DCMA identified in Section G.

(end of clause)

F-3 Report Distribution

(a) DARPA/STO

Attn: Dr. Aaron Lazarus, Program Manager
 3701 North Fairfax Drive
 Arlington, VA 22203-1714
 Phone: (703) 526-4767
 Fax: (703) 465-1070
 Email: aaron.lazarus@darpa.mil
 (one copy each report)

(b) DARPA/STO

Attn: Patrick Bailey, ADPM
 3701 North Fairfax Drive
 Arlington, VA 22203-1714
 Phone: (703) 696-5277
 Fax: (703) 807-0968
 Email: patrick.bailey@darpa.mil
 (one copy each report)

(c) US Army Research Center

Attn: Dr. Robert Mantz, COR
 P.O. Box 12211
 Research Triangle Park, NC 27709-2211
 Phone: (919) 549-4309
 Fax: (919) 549-4384
 Email: robert.a.mantz@us.army.mil
 (one copy each report)

(d) DARPA/Library
3701 North Fairfax Drive
Arlington, VA 22203-1714
Email: library@darpa.mil
(one copy of the Final Technical Report)

(e) Defense Technical Information Center

(1) Email: TR@dtic.mil
(one electronic copy of the Final Technical Report, if unclassified)

OR

(2) Attn: DTIC-BCS
8725 John J. Kingman Road, Suite 0944
Fort Belvoir, VA 22060-0944
(two hard copies of the Final Technical Report if unclassified)

(f) DARPA/CMO
Attn: ~~(S)~~ Stuard, Contracting Officer
~~(S)~~ 3701 North Fairfax Drive
Arlington, VA 22203-1714
Phone: (571) 218-4621
Fax: (703) 465-1062
Email: ~~(S)~~ stuard@darpa.mil
(one copy each report)

(end of clause)

F-4 Notice Regarding Late Delivery

(a) In the event the Contractor anticipates difficulty in complying with the contract delivery schedule, the Contractor shall immediately notify the Contracting Officer in writing, giving pertinent details, including the date by which it expects to make delivery; PROVIDED, however, that this date shall be informational only in character and the receipt thereof shall not be construed as a waiver by the Government of any contract delivery schedule, or any rights or remedies provided by law or under this contract.
(end of clause)

Section G - Contract Administration Data

ACCOUNTING AND APPROPRIATION DATA

AA: 9770400 1320 X729 P7620 2525 DPAC 7 5504 S12136 62715E
 AMOUNT: \$9,538,150.00
 CIN 00000000000000000000000000000000: \$9,538,150.00

AB: 9780400 1320 X729 P8620 2525 DPAC 8 5240 S12136 62715E
 AMOUNT: \$10,408,736.00
 CIN 00000000000000000000000000000000: \$10,408,736.00

CLAUSES INCORPORATED BY FULL TEXT

G-1 Procuring Office Representative

(a) The Procuring Office Representative is (b)(6) Stuard, DARPA/CMO, (b)(6) North Fairfax Drive, Arlington, (b)(6) 22203-1714, telephone: (b)(6) 218-4621, fax: (b)(6) 465-1062, e-mail: (b)(6)stuard@darpa.mil.
 (end of clause)

G-2 Electronic Submission of Payment Requests

(a) Invoices for goods received or services rendered under this contract shall be submitted electronically through Wide Area Work Flow – Receipt and Acceptance (WAWF):

(1) Vendors that have never used WAWF shall follow the directions in the WAWF Vendor Getting Started Guide available at the following website:
<http://www.dfas.mil/contractorpay/electroniccommerce/wideareaworkflow.html>. This website also contains links for Vendor training and practice. Additional support can be obtained by calling WAWF Customer Service at 866-618-5988.

(2) Back up documentation (such as timesheets, monthly status reports, etc.) can be included and attached to the invoice in WAWF. Attachments should be in PDF format, but Attachments created in any Microsoft Office product may be attached. Total limit for the size of files per invoice is 5 megabytes.

(b) The following information, regarding invoice routing DoDAAC's, must be entered for completion of the invoice in WAWF:

WAWF Invoice Type:	Cost Voucher
Issuing Office DoDAAC	HR0011, extension 10
Admin Office DoDAAC	S0514A
Service Approver DoDAAC	S0514A
DCAA Office DoDAAC	HAA062
Paying Office DoDAAC	HQ0339

(c) Cost Vouchers from Contractors approved by DCAA for direct billing will be directly routed to DFAS. Cost Vouchers from Contractors not approved for direct billing will be routed to DCAA for approval before the Cost

Voucher is routed to DFAS. All Final Cost Voucher submissions will be routed to the Service Approver for approval. The DCAA office for this award is:

DCAA North County Branch Office
 DoDAAC: HAA062
 9444 Balboa Avenue, Suite 360
 San Diego, CA 92123-5587

(d) For each invoice/cost voucher submitted for payment, the contractor shall also e-mail the WAWF automated invoice notice directly to the following points of contact:

Name	E-mail	Phone	Role
(b)(6) Stuard	tina.stuard@darpa.mil	(571) 218-4621	Contracting Officer

G-3 Delegation of Authority for Contract Administration

(a) DCMA San Diego, is hereby designated as the Contracting Officer’s authorized representative for administering this contract in accordance with current directives.
 (end of clause)

G-4 Contracting Officer’s Representative (COR)

(a) Performance of work under this contract shall be subject to the technical direction of (b)(6) Robert Mantz, Army Research Office, (b)(6) Box 12211, Research Triangle Park, NC 27709-2211, telephone (b)(6) 549-4309, fax: (b)(6) 549-4384 e-mail: (b)(6) r.t.a.mantz@us.army.mil. Such technical direction includes those instructions to the Contractor necessary to accomplish the Statement of Work. The COR is not otherwise authorized to make any representations or commitments of any kind on behalf of the Contracting Officer or the Government. The COR does not have the authority to alter the Contractor’s obligations or to change the specifications of the contract.

(b) Technical direction shall not include any direction which:

- (1) Constitutes additional work outside the scope of work;
- (2) Constitutes a change as defined in Section I contract clause entitled “Changes”;
- (3) In any manner causes an increase or decrease in the total estimated cost or the time required for contract performance; or
- (4) Changes any of the stated terms, conditions, or specifications of the contract.

(end of clause)

G-5 Payment Instructions for Multiple Accounting Classification Citations

(a) Payments under contract line items funded by multiple accounting classification citations shall be made from the earliest available fiscal year funding sources. The earliest assigned ACRN must be fully disbursed before making disbursements from a succeeding ACRN.

(end of clause)

G-6 Payment of Cost and Fee

(a) As consideration for the proper performance of work required under this contract, the Contractor shall be paid as follows:

(1) Costs, as provided for under Section I contract clause titled "Allowable Cost and Payment" not to exceed the amount set forth as "Total Estimated Cost" in Section B, and subject further to those Section I clauses entitled "Limitation of Cost" or "Limitation of Funds".

(2) A fixed fee in the amount set forth as "Fixed Fee" in Section B, in accordance with the Section I contract clause entitled "Fixed Fee". The Contractor may bill on each invoice the amount of the fixed fee bearing the same percentage to the total fixed fee as the amount of cost billed bears to the total estimated cost.

(end of clause)

Section II - Special Contract Requirements

CLAUSES INCORPORATED BY FULL TEXT

H-1 Contracting Officer

(a) Notwithstanding any other provision of this contract, the Contracting Officer is the only individual authorized to redirect the effort or in any way amend or modify any of the terms of this contract. If, as a result of technical discussions, it is desirable to alter contract obligations or statement of work, a modification must be issued in writing and signed by the Contracting Officer.

(end of clause)

H-2 Type of Contract

(a) This is a Cost Plus Fixed Fee (CPFF) contract.

(end of clause)

H-3 Public Release or Dissemination of Information

(a) There shall be no dissemination or publication, except within and between the Contractor and any subcontractors, of information developed under this contract or contained in the reports to be furnished pursuant to this contract without prior written approval of the DARPA Technical Information Officer (DARPA/TIO). All technical reports will be given proper review by appropriate authority to determine which Distribution Statement is to be applied prior to the initial distribution of these reports by the Contractor. Papers resulting from unclassified contracted fundamental research are exempt from prepublication controls and this review requirement, pursuant to DoD Instruction 5230.27 dated October 6, 1987.

(b) When submitting material for written approval for open publication as described in subparagraph (a) above, the Contractor must submit a request for public release request to the DARPA TIO and include the following information: 1) Document Information: document title, document author, short plain-language description of technology discussed in the material (approx 30 words), number of pages (or minutes of video) and document type (briefing, report, abstract, article, or paper); 2) Event Information: event type (conference, principle investigator meeting, article or paper), event date, desired date for DARPA's approval; 3) DARPA Sponsor: DARPA Program Manager, DARPA office, and contract number; and 4) Contractor's Information: POC name, e-mail and phone. Allow four weeks for processing; due dates under four weeks require a justification. Unusual electronic file formats may require additional processing time. Requests can be sent either via e-mail to tio@darpa.mil or via 3701 North Fairfax Drive, Arlington VA 22203-1714, telephone (571) 218-4235. Refer to www.darpa.mil/tio for information about DARPA's public release process.

(end of clause)

H-4 Key Personnel

(a) The Contractor shall notify the Contracting Officer prior to making any change in key personnel. Key personnel are defined as follows:

(b)(4); (b)(6)
(b)(4); (b)(6)
- Dr. David A. Hazlebeck, Program Manager (General Atomics)
- Adele J. Roberts, Deputy Project Manager (General Atomics)
- Dr. Hal Streckert, Deputy Project Manager (General Atomics)
- Louis Johnson, Senior Executive, (General Atomics)

- (1) Personnel identified in the proposal as key individuals to be assigned for participation in the performance of the contract;
- (2) Personnel whose resumes were submitted with the proposal; or
- (3) Individuals who are designated as key personnel by agreement of the Government and the Contractor during negotiations.

(b) The Contractor must demonstrate that the qualifications of the prospective personnel are equal to or better than the qualifications of the personnel being replaced. Notwithstanding any of the foregoing provisions, key personnel shall be furnished unless the Contractor has demonstrated to the satisfaction of the COR that the qualifications of the proposed substitute personnel are equal to or better than the qualifications of the personnel being replaced.

(end of clause)

H-5 Restrictions on Printing

(a) Unless otherwise authorized in writing by the Contracting Officer, reports, data, or other written material produced using funds provided by this contract and submitted hereunder shall be reproduced only by duplicating processes and shall not exceed 5,000 single page reports or a total of 25,000 pages of a multiple-page report. These restrictions do not preclude the writing, editing, preparation of manuscript or reproducible copy of related illustrative materials if required as part of this contract, or incidental printing such as forms or materials necessary to be used by the Contractor to respond to the terms of the contract.

(end of clause)

H-6 Contractor Representations and Certifications

(a) The Contractor's Representations and Certifications, dated 11 June 2008, are incorporated herein by reference.

(end of clause)

H-7 Insurance Schedule

(a) The Contractor shall maintain the types of insurance listed in FAR 28.307-2 (a), (b) and (c), with the minimum amounts of liability indicated therein. The types of insurance coverage listed in paragraphs (d) and (e) shall also be maintained when applicable.

(end of clause)

H-8 Travel

(a) Reimbursement for travel-related expenses shall be in accordance with the Contractor's approved travel policy. The Federal Travel Regulations, Joint Travel Regulations (JTR), and Standardized Regulations as stated in FAR 31.205-46 will be used as a guide in determining reasonableness of per diem costs. Costs for travel shall be allowable subject to the provisions of FAR 31.205-46.

(b) In connection with direct charge to the contract of travel-related expenses, the Contractor shall hold travel to the minimum required to meet the objectives of the contract, and substantial deviations from the amount of travel agreed to during contract negotiation shall not be made without the authorization of the Contracting Officer.

When applicable, the Contractor shall notify the COR of proposed travel of an employee beyond that agreed to during negotiations.

(c) Approval of the Contracting Officer shall be obtained in advance for attendance by personnel at training courses, seminars, and other meetings not directly related to contract performance if the costs for the courses, seminars, and other meetings are charged to the contract.

(d) All foreign travel shall be authorized and approved in advance, in writing, by the Contracting Officer. Request for such travel must be submitted to the Contracting Officer at least 30-days in advance of traveler's anticipated departure date, and shall include traveler's itinerary of United States Flag Air Carriers. Travel identified in the proposal has been authorized by the contracting officer and does not need separate authorization, provided travel is with United States Flag Air Carriers.

(end of clause)

H-9 Metric System

(a) The Defense Advanced Research Projects Agency (DARPA) will consider the use of the metric system in all of its activities consistent with operational, economical, technical and safety requirements.

(b) The metric system will be considered for use in all new designs. When it is deemed not to be in the best interest of the DoD to provide metric design, justification shall be provided.

(c) Physical and operational interfaces between metric items and U.S. customary items will be designed to assure that interchangeability and interoperability will not be affected.

(d) Existing designs dimensioned in U.S. customary units will be converted to metric units only if determined to be necessary or advantageous. Unnecessary retrofit of existing systems with new metric components will be avoided where both the new metric and existing units are interchangeable and interoperable. Normally, the system of measurement in which an item is originally designed will be retained for the life of the item.

(e) During the metric transition phase hybrid metric and U.S. customary designs will be necessary and acceptable. Material components, parts, subassemblies, and semi-fabricated material, which are of adequate or when it is otherwise specifically determined to be in the best interest of the Department of Defense. Bulk materials will be specified and accepted in metric units when it is expedient or economical to do so.

(f) Technical reports, studies, and position papers, (except those pertaining to items dimensioned in U.S. customary units) will include metric units of measurement in addition to or in lieu of U.S. customary units. With respect to existing contracts, this requirement applies only if such documentation can be obtained without an increase in contract costs.

(g) Use of the dual dimensions (i.e., both metric and U.S. customary dimensions) on drawings will be avoided unless it is determined in specific instances that such usage will be beneficial. However, the use of tables on the document to translate dimensions from one system of measurement to the other is acceptable.

(end of clause)

H-10 Consent to Subcontract

(a) Pursuant to the clause of the General Provisions entitled "Subcontracts (AUG 1998)," FAR 52.244-2, the Contracting Officer hereby consents to the placement of subcontract(s) with the following firm(s)/consultant(s) at the amounts commensurate with those identified in the contractor's proposal:

Name

Boeing

UOP, EERC

Texas AgriLife Research
 REG, Bioselect, Tellurian
 Kuehnle AgroSystems
 Arizona State University
 Martek
 Scripps Institute for Oceanography (SIO)
 Hawaii Bio Energy
 Incitor
 Blue Sun Biodiesel
 Eco Solids International
 Inventure
 Altex
 Utah State
 Los Alamos National Lab
 TSD

(b) Approval must be obtained from the Administrative Contracting Officer to increase the use or number of subcontractors from the level established in subparagraph a.
 (end of clause)

H-11 Small Business Subcontracting Plan and Goals

(a) The Contractor’s Small Business Subcontracting Plan, dated 3 December 2008, is incorporated herein and made a part of this contract by reference.
 (end of clause)

H-12 Proprietary Technical Data and Computer Software

(a) Any deliverable technical data or computer software developed or generated at private expense and considered to be proprietary by the Contractor or subcontractors shall be delivered in accordance with DFARS 252.227-7013 and 252.227-7014. A list of such data and/or software is incorporated into the contract as Attachment No. 2.
 (end of clause)

H-13 Consultants

(a) The contractor is authorized to use the following consultants to the extent indicated:

<u>Name</u>	<u>No. of Hours</u>	<u>Rate</u>	<u>Total Amount</u>
(b)(4); (b)(6) Ralph Down	160	\$175	\$28,000
Amha Belay	256	\$300	\$76,800
Jonathan Lamoureux	300	\$50	\$15,000

(b) Approval must be obtained from the Administrative Contracting Officer to increase the use of consultants from the level estimated in subparagraph (1.).
 (end of clause)

H-14 Export Control Clause

Should this project develop beyond fundamental research (basic and applied research ordinarily published and shared broadly within the scientific community) with military or dual-use applications the following apply:

- (a) The contractor shall comply with all U. S. export control laws and regulations, including the International Traffic in Arms Regulations (ITAR), 22 CFR Parts 120 through 130, and the Export Administration Regulations (EAR), 15 CFR Parts 730 through 799, in the performance of this contract. In the absence of available license exemptions/exceptions, the Contractor shall be responsible for obtaining the appropriate licenses or other approvals, if required, for exports of (including deemed exports) hardware, technical data, and software, or for the provision of technical assistance.
- (b) The Contractor shall be responsible for obtaining export licenses, if required, before utilizing foreign persons in the performance of this contract, including instances where the work is to be performed on-site at any Government installation (whether in or outside the United States), where the foreign person will have access to export-controlled technical data or software.
- (c) The Contractor shall be responsible for all regulatory record keeping requirements associated with the use of licenses and license exemptions/exceptions.
- (d) The Contractor shall be responsible for ensuring that the provisions of this clause apply to its subcontractors.

(end of clause)

H-15 Invention Disclosure and Reports

All written communications required for invention disclosures and reports shall be submitted to the Administrative Contracting Officer (ACO). All unclassified required reporting shall be accomplished using the i-Edison.gov reporting website (<http://s-edison.info.nih.gov/i-Edison/>).

(end of clause)

Section I - Contract Clauses

CLAUSES INCORPORATED BY REFERENCE

52.202-1	Definitions	JUL 2004
52.203-3	Gratuities	APR 1984
52.203-5	Covenant Against Contingent Fees	APR 1984
52.203-6	Restrictions On Subcontractor Sales To The Government	SEP 2006
52.203-7	Anti-Kickback Procedures	JUL 1995
52.203-8	Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity	JAN 1997
52.203-10	Price Or Fee Adjustment For Illegal Or Improper Activity	JAN 1997
52.203-12	Limitation On Payments To Influence Certain Federal Transactions	SEP 2007
52.204-4	Printed or Copied Double-Sided on Recycled Paper	AUG 2000
52.204-7	Central Contractor Registration	APR 2008
52.209-6	Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment	SEP 2006
52.215-2	Audit and Records--Negotiation	JUN 1999
52.215-8	Order of Precedence--Uniform Contract Format	OCT 1997
52.215-10	Price Reduction for Defective Cost or Pricing Data	OCT 1997
52.215-12	Subcontractor Cost or Pricing Data	OCT 1997
52.215-14	Integrity of Unit Prices	OCT 1997
52.215-15	Pension Adjustments and Asset Reversions	OCT 2004
52.215-16	Facilities Capital Cost of Money	JUN 2003
52.215-18	Reversion or Adjustment of Plans for Postretirement Benefits (PRB) Other than Pensions	JUL 2005
52.215-19	Notification of Ownership Changes	OCT 1997
52.215-21	Requirements for Cost or Pricing Data or Information Other Than Cost or Pricing Data--Modifications	OCT 1997
52.216-7	Allowable Cost And Payment	DEC 2002
52.216-8	Fixed Fee	MAR 1997
52.217-2	Cancellation Under Multiyear Contracts	OCT 1997
52.219-4	Notice of Price Evaluation Preference for HUBZone Small Business Concerns	JUL 2005
52.219-8	Utilization of Small Business Concerns	MAY 2004
52.219-9 Alt II	Small Business Subcontracting Plan (Apr 2008) Alternate II	OCT 2001
52.219-28	Post-Award Small Business Program Rerepresentation	JUN 2007
52.222-1	Notice To The Government Of Labor Disputes	FEB 1997
52.222-3	Convict Labor	JUN 2003
52.222-21	Prohibition Of Segregated Facilities	FEB 1999
52.222-26	Equal Opportunity	MAR 2007
52.222-35	Equal Opportunity For Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans	SEP 2006
52.222-36	Affirmative Action For Workers With Disabilities	JUN 1998
52.222-37	Employment Reports On Special Disabled Veterans, Veterans Of The Vietnam Era, and Other Eligible Veterans	SEP 2006
52.222-39	Notification of Employee Rights Concerning Payment of Union Dues or Fees	DEC 2004
52.222-50	Combating Trafficking in Persons	AUG 2007
52.223-3	Hazardous Material Identification And Material Safety Data	JAN 1997
52.223-6	Drug-Free Workplace	MAY 2001

52.223-14	Toxic Chemical Release Reporting	AUG 2003
52.225-13	Restrictions on Certain Foreign Purchases	FEB 2006
52.227-1 Alt I	Authorization And Consent (Dec 2007) - Alternate I	APR 1984
52.227-2	Notice And Assistance Regarding Patent And Copyright Infringement	DEC 2007
52.228-7	Insurance--Liability To Third Persons	MAR 1996
52.230-2	Cost Accounting Standards	APR 1998
52.230-6	Administration of Cost Accounting Standards	MAR 2008
52.232-9	Limitation On Withholding Of Payments	APR 1984
52.232-17	Interest	JUN 1996
52.232-20	Limitation Of Cost	APR 1984
52.232-23	Assignment Of Claims	JAN 1986
52.232-25	Prompt Payment	OCT 2003
52.232-33	Payment by Electronic Funds Transfer--Central Contractor Registration	OCT 2003
52.233-1	Disputes	JUL 2002
52.233-3 Alt I	Protest After Award (Aug 1996) - Alternate I	JUN 1985
52.233-4	Applicable Law for Breach of Contract Claim	OCT 2004
52.242-1	Notice of Intent to Disallow Costs	APR 1984
52.242-3	Penalties for Unallowable Costs	MAY 2001
52.242-4	Certification of Final Indirect Costs	JAN 1997
52.242-13	Bankruptcy	JUL 1995
52.242-15 Alt I	Stop-Work Order (Aug 1989) - Alternate I	APR 1984
52.243-2 Alt V	Changes--Cost-Reimbursement (Aug 1987) - Alternate V	APR 1984
52.244-2	Subcontracts	JUN 2007
52.244-5	Competition In Subcontracting	DEC 1996
52.244-6	Subcontracts for Commercial Items	MAR 2007
52.245-1 (Dev)	Government Property (June 2007)	JUN 2007
52.245-9	Use And Charges	JUN 2007
52.246-23	Limitation Of Liability	FEB 1997
52.249-6	Termination (Cost Reimbursement)	MAY 2004
52.249-14	Excusable Delays	APR 1984
52.253-1	Computer Generated Forms	JAN 1991
252.201-7000	Contracting Officer's Representative	DEC 1991
252.203-7001	Prohibition On Persons Convicted of Fraud or Other Defense-Contract-Related Felonies	DEC 2004
252.204-7000	Disclosure Of Information	DEC 1991
252.204-7003	Control Of Government Personnel Work Product	APR 1992
252.204-7004 Alt A	Central Contractor Registration (52.204-7) Alternate A	SEP 2007
252.204-7006	Billing Instructions	OCT 2005
252.204-7009	Requirements Regarding Potential Access to Export-Controlled Items	JUL 2008
252.205-7000	Provision Of Information To Cooperative Agreement Holders	DEC 1991
252.209-7004	Subcontracting With Firms That Are Owned or Controlled By The Government of a Terrorist Country	DEC 2006
252.209-7007	Prohibited Financial Interests for Lead System Integrators	JAN 2008
252.211-7003	Item Identification and Valuation	AUG 2008
252.211-7007	Item Unique Identification of Government Property	SEP 2007
252.215-7000	Pricing Adjustments	DEC 1991
252.215-7002	Cost Estimating System Requirements	DEC 2006
252.219-7003	Small Business Subcontracting Plan (DOD Contracts)	APR 2007
252.225-7001	Buy American Act And Balance Of Payments Program	JUN 2005
252.225-7002	Qualifying Country Sources As Subcontractors	APR 2003
252.225-7012	Preference For Certain Domestic Commodities	MAR 2008

252.225-7013	Duty-Free Entry	OCT 2006
252.227-7000	Non-estoppel	OCT 1966
252.227-7013	Rights in Technical Data--Noncommercial Items	NOV 1995
252.227-7014	Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation	JUN 1995
252.227-7016	Rights in Bid or Proposal Information	JUN 1995
252.227-7030	Technical Data--Withholding Of Payment	MAR 2000
252.227-7037	Validation of Restrictive Markings on Technical Data	SEP 1999
252.227-7038	Patent Rights--Ownership by the Contractor (Large Business)	DEC 2007
252.227-7039	Patents--Reporting Of Subject Inventions	APR 1990
252.231-7000	Supplemental Cost Principles	DEC 1991
252.232-7003	Electronic Submission of Payment Requests and Receiving Reports	MAR 2008
252.232-7003	Electronic Submission of Payment Requests and Receiving Reports	MAR 2008
252.232-7010	Levies on Contract Payments	DEC 2006
252.235-7011	Final Scientific or Technical Report	NOV 2004
252.242-7004	Material Management And Accounting System	NOV 2005
252.243-7002	Requests for Equitable Adjustment	MAR 1998
252.244-7000	Subcontracts for Commercial Items and Commercial Components (DoD Contracts)	JAN 2007
252.247-7023	Transportation of Supplies by Sea	MAY 2002
252.247-7024	Notification Of Transportation Of Supplies By Sea	MAR 2000

CLAUSES INCORPORATED BY FULL TEXT

52.217-7 OPTION FOR INCREASED QUANTITY--SEPARATELY PRICED LINE ITEM (MAR 1989)

The Government may require the delivery of the numbered line item, identified in the Schedule as an option item, in the quantity and at the price stated in the Schedule. The Contracting Officer may exercise the option by written notice to the Contractor within 15-days of the period of performance end. Delivery of added items shall continue at the same rate that like items are called for under the contract, unless the parties otherwise agree.

(End of clause)

52.222-2 PAYMENT FOR OVERTIME PREMIUMS (JUL 1990)

(a) The use of overtime is authorized under this contract if the overtime premium cost does not exceed \$0.00 or the overtime premium is paid for work --

(1) Necessary to cope with emergencies such as those resulting from accidents, natural disasters, breakdowns of production equipment, or occasional production bottlenecks of a sporadic nature;

(2) By indirect-labor employees such as those performing duties in connection with administration, protection, transportation, maintenance, standby plant protection, operation of utilities, or accounting;

(3) To perform tests, industrial processes, laboratory procedures, loading or unloading of transportation conveyances, and operations in flight or afloat that are continuous in nature and cannot reasonably be interrupted or completed otherwise; or

(4) That will result in lower overall costs to the Government.

(b) Any request for estimated overtime premiums that exceeds the amount specified above shall include all estimated overtime for contract completion and shall--

(1) Identify the work unit; e.g., department or section in which the requested overtime will be used, together with present workload, staffing, and other data of the affected unit sufficient to permit the Contracting Officer to evaluate the necessity for the overtime;

(2) Demonstrate the effect that denial of the request will have on the contract delivery or performance schedule;

(3) Identify the extent to which approval of overtime would affect the performance or payments in connection with other Government contracts, together with identification of each affected contract; and

(4) Provide reasons why the required work cannot be performed by using multishift operations or by employing additional personnel.

* Insert either "zero" or the dollar amount agreed to during negotiations. The inserted figure does not apply to the exceptions in paragraph (a)(1) through (a)(4) of the clause.

(End of clause)

52.247-1 COMMERCIAL BILL OF LADING NOTATIONS (FEB 2006)

When the Contracting Officer authorizes supplies to be shipped on a commercial bill of lading and the Contractor will be reimbursed these transportation costs as direct allowable costs, the Contractor shall ensure before shipment is made that the commercial shipping documents are annotated with either of the following notations, as appropriate:

(a) If the Government is shown as the consignor or the consignee, the annotation shall be:

"Transportation is for the authorized contract deliverables under Contract No. HR0011-09-C-0034 and the actual total transportation charges paid to the carrier(s) by the consignor or consignee are assignable to, and shall be reimbursed by, the Government."

(b) If the Government is not shown as the consignor or the consignee, the annotation shall be:

"Transportation is for the Contract No. HR0011-09-C-0034 and the actual total transportation charges paid to the carrier(s) by the consignor or consignee shall be reimbursed by the Government, pursuant to cost-reimbursement contract no. HR0011-09-C-0034. This may be confirmed by contacting Dina Stuard at tina.stuard@darpa.mil."

(End of clause)

52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

<http://farsite.hill.af.mil>

(End of clause)

52.252-6 AUTHORIZED DEVIATIONS IN CLAUSES (APR 1984)

(a) The use in this solicitation or contract of any Federal Acquisition Regulation (48 CFR Chapter 1) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the clause.

(b) The use in this solicitation or contract of any Defense Federal Acquisition Regulation (48 CFR 201) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

(End of clause)

252.235-7010 Acknowledgment of Support and Disclaimer. (MAY 1995)

(a) The Contractor shall include an acknowledgment of the Government's support in the publication of any material based on or developed under this contract, stated in the following terms: This material is based upon work supported by DARPA under Contract No. HR0011-09-C-0034.

(b) All material, except scientific articles or papers published in scientific journals, must, in addition to any notices or disclaimers by the Contractor, also contain the following disclaimer: Any opinions, findings and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of DARPA.

Section J - List of Documents, Exhibits and Other Attachments

Exhibit/Attachment Table of Contents

DOCUMENT TYPE	DESCRIPTION	PAGES	DATE
Attachment 1	Attachment No. 1 - Statement of Work		
Attachment 2	Attachment 2 - IP Assertions		