

AWARD BASIC

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U. S. ARMY RESEARCH OFFICE
4300 SOUTH MIAMI BLVD.
P. O. BOX 12211
RESEARCH TRIANGLE PARK, NORTH CAROLINA 27709-2211

RESEARCH GRANT SCHEDULE

1. ARO PROPOSAL NUMBER: P-32850-MA
2. GRANT NUMBER: DAAH04-94-G-0267
3. GRANTEE NAME AND ADDRESS: George Mason University
4400 University Drive
Fairfax, VA 22030-4444
4. PRINCIPAL INVESTIGATOR: Dr. Edward J. Wegman
5. STATEMENT OF WORK: The research to be accomplished is identified in the Grantee's proposal identified below which is incorporated by reference in this grant. The estimated cost of the research is set forth in the budget included as Exhibit A.
 - A. RESEARCH TITLE: VISUALIZATION METHODS FOR THE EXPLORATION OF HIGH DIMENSIONAL DATA
 - B. DATE OF PROPOSAL AND REVISIONS THERETO: 12 November 1993, as revised
3 June 1994
6. ARO SCIENTIFIC OFFICER: Dr. Jagdish Chandra
7. PERFORMANCE PERIOD: 15 July 1994 - 14 November 1995
8. A. AWARD AMOUNT: \$95,000
 - B. FUNDED AMOUNT TO DATE: \$15,000
 - C. FUNDED PERIOD: 15 July 1994 - 14 November 1994

See Article 14 of the "U.S. Army Research Office General Terms and Conditions for Grant Awards to Educational Institutions and Other Nonprofit Organizations" (Exhibit B) for restrictions on the Grantor's obligation to provide funding for research beyond that covered by funds provided above.

9. APPROPRIATION DATA:

2142040 46A-7270 P611102.H5705-2583 S31124 \$15,000

10. ADMINISTERED BY: U. S. Army Research Office and the Office of Naval Research. See Article 13 of Exhibit B for the identity of the administrative duties delegated to the ONR. The ONR office that will perform these duties is identified below:

ONR, Resident Representative
101 Marietta Tower, Suite 2805
Atlanta, GA 30303

11. TERMS AND CONDITIONS: This grant is subject to the General Terms and Conditions set forth in the attached Exhibit B and to any Special Terms and Conditions contained in Item 17 of this Grant Schedule.

12. OPTIONS FOR ADDITIONAL PERIODS OF RESEARCH: This grant contains the following option(s):

Option No.	Amount	Number of Months
1	\$80,000	12
2	\$65,000	8

See Article 14 of Exhibit B for restrictions on the Grantor's obligation to exercise the option(s) identified above.

13. FUNDING INCREMENTS AND OPTIONS: The Grantor's obligation to provide funding for increments and/or options is pursuant to Article 14 of Exhibit B.

14. REPORTING REQUIREMENTS: Reporting Requirements are pursuant to Article 11 and Article 12 of Exhibit B.

15. PAYMENTS. Grant payments shall be made in accordance with the following schedule of payments:

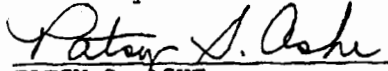
Payment No.	Payment Date	Payment Amount
1	15 July 1994	\$7,500
2	15 September 1994	\$6,750
3	Upon receipt of final technical report	\$ 750

The Grantee shall advise the Grants Officer if at any time an adjustment to the above payment schedule is required due to a variance between projected and experienced expenditures.

16. ACCEPTANCE OF GRANT: Acceptance of this grant is pursuant to Article 38 of Exhibit B.

17. SPECIAL TERMS AND CONDITIONS: None

UNITED STATES OF AMERICA
U.S. Army Research Office



PATSY S. ASHE
Grants Officer

Date: 05 JUL 1994

Attachments:

Exhibit A Budget

Exhibit B U. S. Army Research Office General Terms and Conditions
for Grant Awards to Educational Institutions and Other
Nonprofit Organizations

Exhibit C ARO Form 18 (Attachement of Exhibit B)

SUMMARY PROPOSAL BUDGET

EXHIBIT A

Year 1 FY 94

OFFEROR George Mason University					FOR ARO USE ONLY						
					PROPOSAL NO.	DURATION (MONTHS)		Funds Requested By Offeror	Funds Granted By ARO (If Different)		
PRINCIPAL INVESTIGATOR/PROJECT DIRECTOR Edward Wegman					AWARD NO.	Proposed	Granted				
A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other-Senior Associates (List each separately with title, A.7. show number in brackets)					Man Hrs/Mos	Rate	Person-mos.		Funds Requested By Offeror	Funds Granted By ARO (If Different)	
							CAL	ACAD			SUMR
1. E. Wegman									1	\$ 9,700	\$
2.											
3.											
4.											
5.											
6. () OTHERS (LIST INDIVIDUALLY ON BUDGET EXPLANATION PAGE)											
7. (1) TOTAL SENIOR PERSONNEL (1-6)									1	9,700	
B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)											
1. () POST DOCTORAL ASSOCIATES											
2. () OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)											
3. () GRADUATE STUDENTS											
4. () UNDERGRADUATE STUDENTS											
5. () SECRETARIAL - CLERICAL											
6. () OTHER											
TOTAL SALARIES AND WAGES (A + B)										9,700	
C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)										741	
TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A + B + C)										10,441	
D. PERMANENT EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM. ATTACH ADDITIONAL EXPLANATION PAGES, IF NECESSARY.)											
TOTAL PERMANENT EQUIPMENT											
E. TRAVEL (LIST ON BUDGET EXPLANATION PAGE)											
1. DOMESTIC (INCL CANADA AND U.S. POSSESSIONS)											
2. FOREIGN											
F. PARTICIPANT SUPPORT COSTS											
1. STIPENDS \$ _____											
2. TRAVEL _____											
3. SUBSISTENCE _____											
4. OTHER _____											
() TOTAL PARTICIPANT COSTS											
G. OTHER DIRECT COSTS (ITEMIZE ON BUDGET EXPLANATION PAGE)											
1. MATERIALS AND SUPPLIES											
2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION											
3. CONSULTANT SERVICES											
4. COMPUTER (ADPE) SERVICES											
5. SUBCONTRACTS											
6. OTHER											
TOTAL OTHER DIRECT COSTS											
H. TOTAL DIRECT COSTS (A THROUGH G)										10,441	
I. INDIRECT COSTS					Overhead	Rate	Base	Total			
47% of salaries and wages					G & A						
					Fringe						
					FCCM						
TOTAL INDIRECT COSTS										4,559	
J. TOTAL DIRECT AND INDIRECT COSTS (H + I)										15,000	
K. FEE () (%) (BASE \$)											
L. COST SHARING											
M. AMOUNT OF THIS REQUEST										15,000	
PI/PD TYPED NAME & SIGNATURE Edward J. Wegman					DATE 6/3/94		FOR ARO USE ONLY				
OFFEROR'S REP TYPED NAME & SIGNATURE Jennifer O. Murphy					DATE 6/3/94						

SUMMARY PROPOSAL BUDGET

Year 2 FY 95

OFFEROR George Mason University						FOR ARO USE ONLY							
						PROPOSAL NO.	DURATION (MONTHS)						
PRINCIPAL INVESTIGATOR/PROJECT DIRECTOR Edward Wegman						AWARD NO.							
A. SENIOR PERSONNEL: P/PPD, Co-PI's, Faculty and Other-Senior Associates (List each separately with title, A.7. show number in brackets)						Man Hrs/Mo	Rate	Person-mos.			Funds Requested By Offeror	Funds Granted By ARO (If Different)	
								CAL	ACAD	SUMR			
1. E. Wegman										2	\$ 24,383	\$	
2.													
3.													
4.													
5.													
6. () OTHERS (LIST INDIVIDUALLY ON BUDGET EXPLANATION PAGE)													
7. (1) TOTAL SENIOR PERSONNEL (1-6)										2	24,383		
B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)													
1. () POST DOCTORAL ASSOCIATES													
2. () OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)													
3. (1) GRADUATE STUDENTS											10,000		
4. () UNDERGRADUATE STUDENTS													
5. (1) SECRETARIAL - CLERICAL Grants Administrator											10,000		
6. () OTHER													
TOTAL SALARIES AND WAGES (A + B)											44,383		
C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)											4,465		
TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A + B + C)											48,848		
D. PERMANENT EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM. ATTACH ADDITIONAL EXPLANATION PAGES, IF NECESSARY.)													
TOTAL PERMANENT EQUIPMENT											1,000		
E. TRAVEL (LIST ON BUDGET EXPLANATION PAGE)													
1. DOMESTIC (INCL. CANADA AND U.S. POSSESSIONS)											1,250		
2. FOREIGN													
F. PARTICIPANT SUPPORT COSTS													
1. STIPENDS \$ _____													
2. TRAVEL _____													
3. SUBSISTENCE _____													
4. OTHER _____													
() TOTAL PARTICIPANT COSTS													
G. OTHER DIRECT COSTS (ITEMIZE ON BUDGET EXPLANATION PAGE)													
1. MATERIALS AND SUPPLIES													
2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION											500		
3. CONSULTANT SERVICES													
4. COMPUTER (ADPE) SERVICES													
5. SUBCONTRACTS													
6. OTHER Tuition											7,542		
TOTAL OTHER DIRECT COSTS											8,042		
H. TOTAL DIRECT COSTS (A THROUGH G)											59,140		
I. INDIRECT COSTS						Overhead	Rate	Base	Total				
47% of salaries and wages						G & A							
						Fringe							
TOTAL INDIRECT COSTS						FCCM					20,860		
J. TOTAL DIRECT AND INDIRECT COSTS (H + I)											80,000		
K. FEE (_____ %) (BASE \$ _____)													
L. COST SHARING													
M. AMOUNT OF THIS REQUEST											80,000		
PI/PPD TYPED NAME & SIGNATURE Edward J. Wegman						DATE 6/3/94			FOR ARO USE ONLY				
OFFERORS REP. TYPED NAME & SIGNATURE Jennifer O. Murphy						DATE 6/3/94							

SUMMARY PROPOSAL BUDGET

Year 3 FY 96

OFFEROR George Mason University					FOR ARO USE ONLY				
					PROPOSAL NO.	DURATION (MONTHS)			
PRINCIPAL INVESTIGATOR/PROJECT DIRECTOR Edward Wegman					Proposed		Granted		
					AWARD NO.				
A. SENIOR PERSONNEL: PI/PI, Co-PI's, Faculty and Other Senior Associates (List each separately with title, A.7. show number in brackets)					Man Hrs/Mos	Rate	Person-mos. CAL ACAD SUMR	Funds Requested By Offeror	Funds Granted By ARO (If Different)
1. F. Wegman							2	\$ 24,066	\$
2.									
3.									
4.									
5.									
6. () OTHERS (LIST INDIVIDUALLY ON BUDGET EXPLANATION PAGE)									
7. (1) TOTAL SENIOR PERSONNEL (1-6)							2	24,066	
B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)									
1. () POST DOCTORAL ASSOCIATES									
2. () OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)									
3. (1) GRADUATE STUDENTS								10,000	
4. () UNDERGRADUATE STUDENTS									
5. (1) SECRETARIAL - CLERICAL Grant Administrator								10,500	
6. () OTHER									
TOTAL SALARIES AND WAGES (A + B)								44,566	
C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)								4,574	
TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A + B + C)								49,140	
D. PERMANENT EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM. ATTACH ADDITIONAL EXPLANATION PAGES, IF NECESSARY)									
TOTAL PERMANENT EQUIPMENT								1,000	
E. TRAVEL (LIST ON BUDGET EXPLANATION PAGE)									
1. DOMESTIC (INCL CANADA AND U.S. POSSESSIONS)								1,000	
2. FOREIGN									
F. PARTICIPANT SUPPORT COSTS									
1. STIPENDS \$ _____									
2. TRAVEL _____									
3. SUBSISTENCE _____									
4. OTHER _____									
() TOTAL PARTICIPANT COSTS									
G. OTHER DIRECT COSTS (ITEMIZE ON BUDGET EXPLANATION PAGE)									
1. MATERIALS AND SUPPLIES									
2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION								1,000	
3. CONSULTANT SERVICES									
4. COMPUTER (ADPE) SERVICES									
5. SUBCONTRACTS									
6. OTHER Tuition								6,914	
TOTAL OTHER DIRECT COSTS								7,914	
H. TOTAL DIRECT COSTS (A THROUGH G)								59,054	
I. INDIRECT COSTS					Overhead	Rate	Base	Total	
					G & A				
					Fringe				
					FCCM				
TOTAL INDIRECT COSTS								20,946	
J. TOTAL DIRECT AND INDIRECT COSTS (H + I)								80,000	
K. FEE (%) (BASE \$)									
L. COST SHARING									
M. AMOUNT OF THIS REQUEST								80,000	
PI/PI TYPED NAME & SIGNATURE Edward J. Wegman					DATE	6/3/96			
OFFERORS REP TYPED NAME & SIGNATURE Jennifer O. Murphy, Dir., Sponsored Program Adm.					DATE	6/5/96			
					FOR ARO USE ONLY				

SUMMARY PROPOSAL BUDGET

Year 4 FY 97

OFFEROR George Mason University					FOR ARO USE ONLY				
PRINCIPAL INVESTIGATOR/PROJECT DIRECTOR Edward Wegman					PROPOSAL NO.	DURATION (MONTHS)			
						Proposed	Granted		
					AWARD NO.				
A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other-Senior Associates (List each separately with title, A.7. show number in brackets)					Men Hrs/Mos	Rate	Person-mos. CAL ACAD SUMR	Funds Requested By Offeror	Funds Granted By ARO (If Different)
1. E. Wegman							1	\$ 13,441	
2.									
3.									
4.									
5.									
6. () OTHERS (LIST INDIVIDUALLY ON BUDGET EXPLANATION PAGE)									
7. (1) TOTAL SENIOR PERSONNEL (1-6)							1	13,441	
B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)									
1. () POST DOCTORAL ASSOCIATES									
2. () OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)									
3. (1) GRADUATE STUDENTS								10,000	
4. () UNDERGRADUATE STUDENTS									
5. (1) SECRETARIAL - CLERICAL Grants Administrator								11,025	
6. () OTHER									
TOTAL SALARIES AND WAGES (A + B)								34,466	
C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)								3,895	
TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A + B + C)								38,361	
D. PERMANENT EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM. ATTACH ADDITIONAL EXPLANATION PAGES, IF NECESSARY.)									
TOTAL PERMANENT EQUIPMENT								1,000	
E. TRAVEL (LIST ON BUDGET EXPLANATION PAGE)									
1. DOMESTIC (INCL. CANADA AND U.S. POSSESSIONS)								1,000	
2. FOREIGN									
F. PARTICIPANT SUPPORT COSTS									
1. STIPENDS \$ _____									
2. TRAVEL _____									
3. SUBSISTENCE _____									
4. OTHER _____									
() TOTAL PARTICIPANT COSTS									
G. OTHER DIRECT COSTS (ITEMIZE ON BUDGET EXPLANATION PAGE)									
1. MATERIALS AND SUPPLIES									
2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION								835	
3. CONSULTANT SERVICES									
4. COMPUTER (ADPE) SERVICES									
5. SUBCONTRACTS									
6. OTHER Tuition								7,605	
TOTAL OTHER DIRECT COSTS								8,440	
H. TOTAL DIRECT COSTS (A THROUGH G)								48,801	
I. INDIRECT COSTS					Rate	Base	Total		
47% of salaries and wages					Overhead				
					G & A				
					Fringe				
					FCCM				
TOTAL INDIRECT COSTS								16,199	
J. TOTAL DIRECT AND INDIRECT COSTS (H + I)								65,000	
K. FEE (_____ %) (BASE \$ _____)									
L. COST SHARING								65,000	
M. AMOUNT OF THIS REQUEST									
PI/PD TYPED NAME & SIGNATURE Edward J. Wegman					DATE 6/3/94		FOR ARO USE ONLY		
OFFERORS REP TYPED NAME & SIGNATURE Jennifer O. Murphy					DATE 6/3/94				

SUMMARY PROPOSAL BUDGET

Year FY 94-FY 97

OFFEROR George Mason University						FOR ARO USE ONLY				
						PROPOSAL NO.	DURATION (MONTHS)			
PRINCIPAL INVESTIGATOR/PROJECT DIRECTOR Edward J. Wegman						AWARD NO.	Proposed	Granted		
						A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associates (List each separately with title, A.7. show number in brackets)				
1. E. Wegman								6	\$ 71,590	\$
2.										
3.										
4.										
5.										
6. () OTHERS (LIST INDIVIDUALLY ON BUDGET EXPLANATION PAGE)										
7. (1) TOTAL SENIOR PERSONNEL (1-6)								6	71,590	
B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)										
1. () POST DOCTORAL ASSOCIATES										
2. () OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)										
3. (1) GRADUATE STUDENTS									30,000	
4. () UNDERGRADUATE STUDENTS										
5. (1) SECRETARIAL - CLERICAL Grant Administrator									31,525	
6. () OTHER										
TOTAL SALARIES AND WAGES (A + B)									133,115	
C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)									13,675	
TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A + B + C)									146,790	
D. PERMANENT EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM. ATTACH ADDITIONAL EXPLANATION PAGES, IF NECESSARY)										
TOTAL PERMANENT EQUIPMENT									3,000	
E. TRAVEL (LIST ON BUDGET EXPLANATION PAGE)										
1. DOMESTIC (INCL CANADA AND U.S. POSSESSIONS)									3,250	
2. FOREIGN										
F. PARTICIPANT SUPPORT COSTS										
1. STIPENDS \$ _____										
2. TRAVEL _____										
3. SUBSISTENCE _____										
4. OTHER _____										
() TOTAL PARTICIPANT COSTS										
G. OTHER DIRECT COSTS (ITEMIZE ON BUDGET EXPLANATION PAGE)										
1. MATERIALS AND SUPPLIES										
2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION									2,335	
3. CONSULTANT SERVICES										
4. COMPUTER (ADPE) SERVICES										
5. SUBCONTRACTS										
6. OTHER Tuition									22,060	
TOTAL OTHER DIRECT COSTS									24,395	
H. TOTAL DIRECT COSTS (A THROUGH G)									177,436	
I. INDIRECT COSTS						Rate	Base	Total		
1. INDIRECT COSTS						Overhead				
47% of salaries and wages						G & A				
						Fringe				
						FCCM				
TOTAL INDIRECT COSTS									62,564	
J. TOTAL DIRECT AND INDIRECT COSTS (H + I)									240,000	
K. FEE (___ %) (BASE \$ _____)										
L. COST SHARING										
M. AMOUNT OF THIS REQUEST									240,000	
PI/PD TYPED NAME & SIGNATURE Edward J. Wegman						DATE	6/3/94			FOR ARO USE ONLY
OFFERORS REP. TYPED NAME & SIGNATURE Jennifer O. Murphy						DATE	6/3/94			

**U.S. ARMY RESEARCH OFFICE GENERAL TERMS AND
CONDITIONS FOR GRANT AWARDS TO EDUCATIONAL
INSTITUTIONS AND OTHER NONPROFIT ORGANIZATIONS**

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34. Data Collection
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36. Use of U.S.-Flag Carriers
37. Debarment
38. Acceptance of Grant

1. RESEARCH RESPONSIBILITY.

a. The grantee will bear primary responsibility for the conduct of the research and will exercise judgment towards

attaining the stated research objectives within the limits of the grant's terms and conditions.

b. The principal investigator(s) specified in the grant document will be continuously responsible for the conduct of the research project and will be closely involved with the research effort. The principal investigator, operating within the policies of the grantee, is in the best position to determine the means by which the research may be conducted most effectively.

c. The grantee will advise the grantor if the principal investigator will, or plans to, devote substantially less effort to the work than specified in the budgetary portion of the grant document.

d. The grantee will obtain the grantor's approval to change the principal investigator or to continue the research work during a continuous period in excess of three (3) months without the participation of an approved principal investigator.

e. The grantee will obtain the grantor's approval to change:

(1) The methodology or experiment when such is stated in the grant as a specific objective;

(2) the stated objectives of the research effort; or

(3) the phenomenon or phenomena under study.

2. ORDER OF PRECEDENCE

Any inconsistency or conflict in the terms or conditions specified in this grant shall be resolved according to the following order of precedence:

a. The Research Grant Schedule

b. General Terms and Conditions for Grant Awards to Educational Institutions and Other Nonprofit Organizations (Exhibit B of the Grant)

3. ADMINISTRATION AND COST PRINCIPLES

The following OMB Circulars and attachments thereto, effective the earlier of (i) the start date of this grant or (ii) the

date on which the grantee incurs costs to be assessed the grant, are incorporated as part of this grant by reference:

- a. A-110, "Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Nonprofit Organizations."
- b. A-21, "Cost Principles for Educational Institutions."
- c. A-122, "Cost Principles for Nonprofit Organizations" (see note below).
- d. A-88, "Indirect Cost Rates, Audit, and Audit Follow-up at Educational Institutions."
- e. A-133, "Audits of Institutions of Higher Education and Other Nonprofit Organizations."

Note: For those nonprofit organizations specifically exempted from the provisions of OMB Circular A-122, Subpart 31.2 of the Federal Acquisition Regulation (FAR) (48 CFR Subpart 31.2) shall apply.

These regulations may be obtained from:

Office of Management and Budget
EOP Publications Office
New Executive Office Building
725 17th Street, N.W. Room 2200
Washington, DC 20503

Telephone: (202) 395-7332

4. AMENDMENT OF THE GRANT

The only method by which this grant can be amended is by a formal, written amendment signed by the grants officer. No other communications, whether oral or in writing, are valid.

5. WAIVERS OF OMB CIRCULAR PRIOR APPROVALS AND OTHER AUTHORIZATIONS

Prior Approvals. All prior approvals required by OMB Circulars A-21 and A-110 are waived except the following:

- a. Change in the scope or objectives of the Research Project as required by Article I of these terms and conditions entitled "Research Responsibility."
- b. Any request for additional funding.
- c. Change in key personnel as required by Article I of these terms and conditions entitled "Research Responsibility."
- d. Exclusive of supplies, material, equipment or general support services, the award of a subcontract or subgrant to

accomplish substantial programmatic work required in the agreement to be performed by the prime grantee.

- e. Transfer of funds among all cost elements when the cumulative amount of all such transfers exceeds or is expected to exceed 15% of the total budget last approved by the grantor.
- f. Unless identified in the budget incorporated as part of the grant, expenditures for general purpose equipment and specific purpose equipment costing \$1,000 or more.
- g. Unless identified in the budget incorporated as part of the grant, expenditures for foreign travel.
- h. Costs for foreign and domestic travel that exceed by more than 25% or \$500, whichever is greater, the cost for such effort included in the budget incorporated as part of the grant.

6. PRE-AWARD COSTS

The grantee may incur preaward costs of up to ninety (90) days prior to the start date of the grant agreement. Preaward costs as incurred by the grantee must be necessary for the effective and economical conduct of the project, and the costs must be otherwise allowable in accordance with the appropriate cost principles. Preaward costs are made at the grantee's risk. The incurring of preaward costs by the grantee does not impose any obligation on the grantor in the absence of appropriations, if an award is not subsequently made, or if an award is made for a lesser amount than the grantee expected.

7. CHANGE IN PERFORMANCE PERIOD

The grantee may make a one-time extension to the expiration period of the grant for a period up to 12 months. The grantee shall notify the grantor in writing within 30 calendar days after such extension. The grantee's extension must be initiated before the termination date of the grant.

8. UNOBLIGATED BALANCES

In the absence of any specific notice to the contrary, the grantee is authorized to carry forward unexpended balances to subsequent funding periods of the grant agreement.

9. PAYMENTS

Unless specified to the contrary in the Grant Schedule (Special Terms and conditions) payments to the grantee shall be by the use of a predetermined schedule of payments.

Grantees not receiving predetermined schedule of payments shall submit requests for payment using SF 270, Request for Advance or Reimbursement, no more frequently than monthly. The request shall be submitted to the activity identified in Item 10 of the Grant Schedule.

10. PUBLICATION AND ACKNOWLEDGEMENT

a. **Publication.** The grantee is encouraged to publish results of the research, unless classified, in appropriate journals. One copy of each paper planned for publication will be submitted to the Scientific Officer simultaneously with its submission for publication. Copies of all publications resulting from the research will be forwarded to the grantor as they become available even though publication may in fact occur subsequent to the termination date of this grant.

b. **Acknowledgement.** The grantee agrees that in the release of information relating to this grant, such release shall include a statement to the effect that the project or effort depicted was or is sponsored by the Department of the Army, Army Research Office, and that the content of the information does not necessarily reflect the position or the policy of the government, and no official endorsement should be inferred. For purposes of this article, information includes news releases, articles, manuscripts, brochures, advertisements, still and motion pictures, speeches, trade association proceedings, etc.

c. **Disclosure of Federal Funding.** When issuing statements, press releases, requests for proposals, bid solicitations and other documents describing projects or programs funded in whole or in part with federal money, all grantees receiving federal funds, including but not limited to state and local governments, shall clearly state: (1) the percentage of total cost of the program or project which will be financed with federal money and (2) the dollar amount of federal funds for the project or program. (Section 8136, FY 1989 DOD Appropriations Act).

11. TECHNICAL REPORTING REQUIREMENTS

Technical reporting requirements are set forth in the U.S. Army Research Office Reporting Instructions (ARO Form 18). A copy of the reporting requirements is attached.

12. FINANCIAL REPORTING REQUIREMENTS

The following financial reports are required for grantees receiving funds advanced by Treasury checks

a. Federal Cash Transaction Report (SF 272) (Quarterly): Within 15 working days following the end of each quarter.

b. Financial Status Report (SF 269) (Final): At completion of grant.

For grantees receiving funds by reimbursement, the following financial reports are required:

a. Financial Status Report (SF 269) (Final): At completion of grant.

b. Federal Cash Transaction Report (SF 272): Annually.

All reports shall be submitted to the Office of Naval Research Office identified in the Research Grant Schedule.

13. DELEGATION OF ADMINISTRATION DUTIES

Certain grant administration duties have been delegated to the Office of Naval Research identified in Item 10 of the Research Grant Schedule. These duties are listed below:

a. Provisionally approve all Requests for Advance or Reimbursement (SF 270).

b. Perform all property administration duties (Attachment N, OMB Circular A-110) except the approval of grantee requests to purchase equipment with grant funds. Such approval must be granted by the ARO grant officer.

c. Perform all plant clearance functions.

d. Approve requests for Registration of Scientific and Technical Information Services (DD Form 1540).

e. Obtain the interim (if required) and final financial report(s).

f. Obtain the interim patent report(s).

g. Upon expiration of the grant

(1) Obtain the final Report of Inventions and Subcontracts (DD Form 882).

(2) Obtain final payment request, if any.

(3) Obtain final property report and dispose of purchased property and GFE in accordance with Attachment N of OMB Circular A-110.

(4) Obtain the Grantee Release and Assignment of Refunds, Rebates, Credits and Other Amounts.

(5) Perform a review of final incurred costs and assist the grant officer in resolving exceptions, if any, resulting from costs questioned.

(6) Assure that all refunds due the Government are received by the grant officer.

14. FUNDING INCREMENTS AND/OR OPTIONS

The grantee is advised that the grantor's obligation to provide funding for funding increments and/or options included in the grant is contingent upon (i) satisfactory performance and (ii) the availability of funds. Accordingly, no legal liability on the part of the grantor exists unless or until (i) funds are made

available to the grantor and notice of such availability is confirmed in writing to the grantee and (ii) performance of the research is deemed satisfactory in the judgment of the scientific officer.

15. COST-SHARING

Cost-sharing amounts, if any, identified in the grant documents must meet the allocability test of the appropriate cost principles identified in Article 3 of these Terms and Conditions. If at the end of the grant period the actual cost of the research project is less than the project cost negotiated, the actual cost will be allocated between the grantor and the grantee in the dollar ratio originally proposed. Excess grantor funds will be returned to the government. If the grant officer approves a significant departure from the original research objectives, the grantee may request that the negotiated cost-sharing percentage be adjusted.

16. TITLE TO EXPENDABLE AND NONEXPENDABLE ACQUIRED PROPERTY

Unless specified otherwise in the "Special Terms and Conditions" paragraph of the grant agreement, title to all nonexpendable and expendable tangible personal property purchased with grant funds shall be vested in the grantee upon acquisition subject to the provisions of Attachment N, OMB Circular A-110.

17. PROGRAM INCOME

All program income earned except (i) interest on advances of funds, (ii) proceeds from the sale of real and personal property and (iii) royalties received as a result of copyrights or patents produced under the grant shall be deducted from the total project costs in determining the net costs on which the grantor share of costs will be based.

18. PATENT RIGHTS

The patent rights clause, "Rights to Inventions Made to Nonprofit Organizations and Small Business Firms" (37 CFR Part 401) is incorporated as part of the grant by reference. Invention reports shall be filed at least annually and at the end of the period of the grant. Annual Reports are due 60 days after the anniversary date of the grant and final reports are due 6 months after the expiration of the final research period. The grantee shall use DD Form 882, Report of Inventions and Subcontracts, to file the invention reports. Negative reports are required. The grant shall not be closed out until all invention reporting requirements are met.

19. RIGHTS IN TECHNICAL DATA AND COMPUTER SOFTWARE

Rights in technical data and computer software under this grant shall be as specified in the DOD FAR Supplement

(DFARS 252.227-7013, Rights in Technical Data and Computer Software)(OCT 1988) which is incorporated by reference.

20. DISPUTES

Disagreements regarding matters of fact between the grantee and the grantor which arise during performance of the grant shall be resolved by negotiation to the maximum extent practicable. If agreement cannot be reached, the grant officer will issue a final decision in writing to the grantee. The final decision will permit the grantee to appeal the decision within 30 days after receipt of such notification. Appeals will be resolved at the Headquarters, Department of Army level. A decision will be final and not subject to further administrative appeal.

21. SUSPENSION AND TERMINATION

a. **Suspension.** When the grantee has failed to comply with the terms of the grant agreement, the grantor may, upon reasonable written notice, temporarily suspend performance under the grant. Such suspension will be without further payments and will prohibit the grantee from incurring additional obligations pending corrective action by the grantee or a decision to terminate by the grantor. The grant officer shall notify the grantee in writing of the suspension and specify the effective date of the suspension and, where practicable, the duration of the suspension. The grantor shall allow all necessary and proper costs which the grantee could not reasonably avoid during the period of suspension provided such costs are in accordance with applicable cost principles.

b. **Termination.** The grantor may terminate the grant in whole or in part for:

(1) **Cause.** Termination may occur at any time before the date of completion if the grantor determines that the grantee has failed to comply with the conditions of the grant. Payments made to the grantee or recoveries made by the grantor shall be within the legal rights and liabilities of the parties.

(2) **Convenience.** When both parties agree that continuing the project would not result in benefits commensurate with expending more funds, they may agree to terminate the grant. Termination conditions shall include the effective date of termination. In case of partial termination, the portion to be discontinued must be specified. Grantees shall cancel as many outstanding obligations as possible and shall not incur new obligations after the effective date of termination. The grantee shall be allowed full credit for the federal share of the noncancelable obligations properly incurred before termination.

22. GRANTEE RELEASE AND ASSIGNMENT OF REFUNDS, REBATES, CREDITS AND OTHER AMOUNTS.

The grantee shall submit these reports not later than ninety (90) days after completion of the grant.

23. SECURITY

As a general rule, principal investigators will not need access to classified security information in the conduct of research supported under this grant. Should it appear that access to such information is desirable, the grantee shall advise the grantor and request clearance for the investigator. Should information be developed under the course of work under this grant that, in the judgment of the principal investigator or the grantee, should be classified, the grantor shall be notified immediately.

24. OFFICIALS NOT BE BENEFIT

No member of or delegate to Congress, or resident Commissioner, will be admitted to any share or part of the grant, or to any benefits that may arise therefrom.

25. NONDISCRIMINATION

a. **Employment.** In connection with performance of work under this grant, the grantee agrees not to discriminate against any employee or applicant for employment because of race, religion, color, sex, or national origin. This provision will include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

b. **Educational Institutions.** If the grantee is an educational institution, the grantee agrees not to discriminate on the basis of race, color, creed, sex, or national origin against any student in selection of personnel for graduate or technical work related to the grant.

26. ACCESS TO INFORMATION

The grantee agrees to permit any person or persons designated by the grantor access during normal business hours to such books, records, accounts and other sources of information, and facilities as is reasonably necessary to ascertain compliance with the provisions of this article.

27. CIVIL RIGHTS ACT OF 1964

The grantee shall comply with the Civil Rights Act of 1964 and implementing regulations.

28. CLEAN AIR AND WATER

If the amount of this grant exceeds \$100,000, the grantee shall comply with the Clean Air Act of 1970 (42 U.S.C. 1857), as amended; the Federal Water Pollution Control Act (33 U.S.C. 1251), as amended; Executive Order No. 11738; and the related regulations of the Environmental Protection Agency (40 CFR, Part 15).

29. CERTIFICATION REGARDING DRUG-FREE WORKPLACE

By acceptance of the grant document, the grantee acknowledges CFR, Appendix C to Part 280, "Certification Regarding Drug-Free Workplace Requirements, Alternate 1." The place of performance as specified in the technical proposal shall constitute the grantee's designation of the site for the performance of work done in connection with this grant.

30. CERTIFICATION REGARDING LOBBYING

If the amount of this grant exceeds \$100,000, the grantee acknowledges 31 U.S.C. 1352, "Limitation on Use of Appropriated Funds to Influence Certain Federal Contracting and Financial Transactions."

31. RESEARCH INVOLVING RECOMBINANT DNA MOLECULES

Any grantee performing research involving recombinant DNA molecules and/or organisms and viruses containing recombinant DNA molecules agrees by acceptance of this award to comply with the National Institutes of Health "Guidelines for Research Involving Recombinant DNA Molecules," Nov 1984 (49 FR46266-46291), or such later revision of those guidelines as may be published in the Federal Register.

32. PROHIBITION OF USE OF HUMAN SUBJECTS

Notwithstanding any other provisions contained in this grant or incorporated by reference herein, the grantee is expressly forbidden to use or subcontract for the use of human subjects in any manner whatsoever. In the performance of this grant, the grantee agrees not to come into contact with, use or employ, or subcontract for those or employ of any human subject for research, experimentation, test or other treatment under the scope of works as set out in the grant without the express written approval from the grant officer.

33. PROHIBITION OF USE OF LABORATORY ANIMALS

Notwithstanding any other provisions contained in this grant or incorporated by reference herein, the grantee is expressly forbidden to use or subcontract or subgrant for the use of

laboratory animals in any manner whatsoever without the express written approval of the grant officer.

34. DATA COLLECTION

Data collection activities, if any, performed under this project are the responsibility of the grantee, and awarding agency support of the project does not constitute approval of any survey design, questionnaire content, or data collection procedures. The grantee shall not represent to respondents that such data are being collected for or in association with the awarding agency without the specific written approval of the grant officer. However, this requirement is not intended to preclude mention of awarding agency support of the project in response to an inquiry or to preclude acknowledgement of such support in any publication of this data.

35. SITE VISITS

The grantor, through authorized representatives, has the right during normal business hours, to make site visits to review project accomplishments and to provide such technical assistance as may be required. If any site visit is made by the grantor on the premises of the grantee, a subgrantee, or contractor, the grantee shall provide, and shall require its subgrantees and contractor to provide, all reasonable facilities and assistance for the safety and convenience of the government representatives in the performance of their duties. All site visits and evaluations shall be performed in such a manner as will not unduly interfere with or delay the work.

36. USE OF U.S.-FLAG AIR CARRIERS

a. The Comptroller General of the United States, by Decision B-138942 of June 17, 1975, as amended March 31, 1981, provided guidelines for implementation of Section 5 of the International Air Transportation Fair Competitive Practices Act of 1974.

b. Any air transportation to, from, between, or within a country other than the U.S., of persons or property, the expense of which will be assisted by this award, must be performed on a U.S.-flag air carrier if service provided by such carrier is "available."

c. The following rules apply unless the result would be use of a foreign air carrier ("foreign carrier") for the first or last leg of travel from or to the U.S.:

(1) A U.S.-flag air carrier ("U.S. carrier") shall be used to destination or, in the absence of through service, to farthest interchange point.

(2) If a U.S. carrier does not serve an origin or interchange point, a foreign carrier shall be used to the nearest interchange point to connect with a U.S. carrier.

(3) If a U.S. carrier involuntarily reroutes the traveler via a foreign carrier, the foreign carrier may be used.

d. Exceptions. In the following situations, use of a foreign carrier is permissible:

(1) Travel to and from the U.S. Use of a foreign carrier is permissible if:

(a) The airport abroad is the origin or destination airport, and use of a U.S. carrier would extend the total travel time 24 hours or more than would travel by foreign carrier; or

(b) The airport abroad is an interchange point, and use of a U.S. carrier would require the traveller to wait six (6) hours or more to make connection or would extend the total travel time six (6) hours or more than would travel by foreign carrier.

(2) Travel Between Points Outside the U.S. Use of a foreign carrier is permissible if:

(a) Travel by foreign carrier would eliminate two (2) or more aircraft en route; or

(b) Travel by U.S. carrier would extend the total travel time six (6) hours or more than would travel by foreign carrier.

(3) Short Distance Travel. For all short distance travel, regardless of origin and destination, use of a foreign carrier is permissible if the elapsed travel time on a scheduled flight from origin to destination airport by foreign carrier is three (3) hours or less and service by U.S. carrier would double the travel time.

37. DEBARMENT & SUSPENSION

This award is subject to any DoD regulations that provide for debarring organizations or individuals from eligibility to participate under financial assistance programs.

38. ACCEPTANCE OF GRANT

The recipient is not required to countersign the grant document; however, the grantee agrees to the conditions specified in the Grant Schedule and the Articles herein unless notice of disagreement is furnished the grant officer within 15 calendar days after the date of grant officer signature. In case of disagreement, the grantee shall not assess the grant any costs of the research unless and until such disagreement(s) is resolved.

Award

Mod 1

INDIVIDUAL GRANT ACTION REPORT

INTERAGENCY REPORT
CONTROL NUMBER
0252-DOC-QU

PART A		A1. TYPE OF REPORT 0 Original 1 Cancelling 2 Correcting		A2. REPORT NO	A3. CONTRACTING OFFICE CODE AH04	
PART B		B1. DUNS NUMBER	B2. CAGI CODE	B3. INSTITUTION CODE	B4. TIN	B5. PARENT TIN
B6. GRANTEE NAME AND DIVISION NAME George Mason University				B7. GRANTEE ADDRESS (Street, City, State) 4400 University Drive Fairfax, VA		B8. GRANTEE CITY OR PLACE CODE 26496
						B9. GRANTEE STATE OR COUNTRY CODE 51
						B10. ZIP CODE 22030-4444
B11. TYPE OF GRANTEE				B12. OTHER GRANTEE INFORMATION		
1 State Government 2 County Government 3 Municipal Government 4 Special District Government 5 Independent School District 6 State Controlled Institutions of Higher Education 7 Indian Tribe 8 Nonprofit Agency (Other than Educational) 9 Private Higher Education Institution 10 Individual 11 Profit Organization (Not a Small Business) 12 Small Business 13 All Other				1 Historically Black Colleges and Universities 2 Minority Institution 3 Foreign University 4 Foreign Nonprofit Organization 5 Federally Funded Research and Development Center (Academic) 6 Federally Funded Research and Development Center (Nonprofit) 7 Not Applicable		
PART C		C1. GRANT NUMBER 94-G-0267	C2. MOD NUMBER P00001	C3. OBLIGATION DATE (YYMMDD)	C4. PROJECT STARTING DATE (YYMMDD)	C5. PROJECT ENDING DATE (YYMMDD)
C6. TYPE OF ACTION		C7A. FEDERAL OBLIGATION AMOUNT (Enter whole dollars only)		C7B. FEDERAL OBLIGATION SIGN		C9. TOTAL FEDERAL VALUE OF GRANT (Enter whole dollars only)
1 New Grant Award 2 Subsequent Incremental Funding Action 3 Exercise of Option, Additional Research, Revision of Research Proposal 4 Funding Adjustment to Completed Project		80,000		1 Obligation 2 Deobligation		
		C7A. NONFEDERAL OBLIGATION AMOUNT (Enter whole dollars only)		C7B. NONFEDERAL OBLIGATION SIGN		
				1 Obligation 2 Deobligation		
C10. TYPE OF AWARD						C11. CDA NUMBER
1 Revenue Sharing 4 Project Grant 7 Direct Loan 10 Direct Payment (Restricted Use) 2 Block Grant 5 Cooperative Agreement 8 Guaranteed Loan 11 Other Reimbursable Contingent Intangible Indirect 3 Formula Grant 6 Direct Payment (Specific Use) 9 Insurance						12.431
C12. PROJECT DESCRIPTION VISUALIZATION METHODS FOR THE EXPLORATION OF HIGH DIMENSIONAL DATA						
C13. PRIMARY ADMINISTERING AGENCY 2100		C14. PRINCIPAL PLACE OF PERFORMANCE		C15. TYPE OF FUNDS		
		C14A. CITY OR PLACE CODE	C14B. STATE OR COUNTRY CODE	1 Research 4 Engineering Development 7 Other 2 Exploratory Development 5 Operational Systems Development 3 Advanced Development 6 Management and Support		
C16. AGENCY APPROPRIATION				C17. EXTENT COMPLETED		
1 ARMY 4 OSD 7 NSA 10 DIA 13 DLA 2 DMA 5 DARPA 8 DNA 11 USMC 14 USHS 3 SOO 6 AF 9 DCA 12 NAVY 15 Non-DOO				1 Completed Action 2 Follow-on to Completed Action 3 Not Available for Comparison 4 Not Completed		
C18. CATEGORY OF SUPPORT (Choose one category)				AMOUNT		C19. CATEGORY OF SCIENCE AND ENGINEERING
C18A. RESEARCH AND DEVELOPMENT				80,000		C19A.
C18B. FELLOWSHIPS, TRAINESHIPS						21
C18C. R & D PLANT						C19B.
C18D. FACILITIES AND EQUIPMENT FOR SCIENCE AND ENGINEERING (DoD Instrumentation)						C19C.
C18E. GENERAL SUPPORT FOR SCIENCE AND ENGINEERING						C19D.
C18F. OTHER ACTIVITIES RELATED TO SCIENCE AND ENGINEERING (Conference/Symposia)						C19E.
C18G. ALL OTHER ACTIVITIES NOT RELATED TO SCIENCE AND ENGINEERING						C19F.
PART D		D1. NAME OF CONTRACTING OFFICER OR REPRESENTATIVE (Last, First, Middle Initial) ASHE, PATSY S.		D2. SIGNATURE <i>Patsy S. Ashe</i>		D3. TELEPHONE NUMBER (Include Area Code) 919-549-4270
						D4. DATE SIGNED (YYMMDD) 15 DEC 1994

U.S. ARMY RESEARCH OFFICE
4300 SOUTH MIAMI BLVD.
P. O. BOX 12211
RESEARCH TRIANGLE PARK, NORTH CAROLINA 27709-2211

RESEARCH GRANT SCHEDULE

1. ARO PROPOSAL NUMBER: P-32850-MA
2. GRANT NUMBER: DAAH04-94-G-0267
3. MODIFICATION NUMBER: P00001
4. GRANTEE NAME AND ADDRESS: George Mason University
4400 University Drive
Fairfax, Virginia 22030-4444
5. PRINCIPAL INVESTIGATOR(S): Dr. Edward J. Wegman
6. GRANTEE REQUEST FOR MODIFICATION (IF APPLICABLE): N/A
7. DESCRIPTION OF MODIFICATION:

A. Article 8 of the Grant Schedule is changed as shown below to increase the Grantor's funding obligation under the research project:

	<u>Funded Amount</u>
Previous Amount	\$15,000
Amount of Increase	<u>80,000</u>
Revised Amount	\$95,000

The following is a summary to date of the award amount and funded amount under the subject grant:

ARTICLE 8 A. AWARD AMOUNT: \$95,000
ARTICLE 8 B. FUNDED AMOUNT: \$95,000
ARTICLE 8 C. FUNDED PERIOD: 15 July 1994 - 14 November 1995

B. Article 9 entitled APPROPRIATION DATA is modified to include the following:

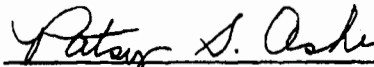
2152040 56A-7270 P611102.H5705-2583 S31124 \$80,000

C. Grant payments for the amount of the increase shall be made in accordance with the following schedule of payments:

<u>Payment No.</u>	<u>Payment Date</u>	<u>Payment Amount</u>
1	20 December 1994	\$20,000
2	20 February 1995	\$20,000
3	20 May 1995	\$20,000
4	20 August 1995	\$18,000
5	Upon receipt of Final Technical Report	\$ 2,000

The grantee shall advise the grant officer if at any time an adjustment to the above payment schedule is required due to a variance between projected and experienced expenditures. All other provisions remain unchanged.

UNITED STATES OF AMERICA
U.S. Army Research Office



PATSY S. ASHE
Grants Officer

Date: 15 DEC 1994

Award

Mod 2



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
ARMY RESEARCH OFFICE
P.O. BOX 12211
RESEARCH TRIANGLE PARK, NC 27709-2211



01 DEC 1995

Procurement Office

Subject: Proposal No. P-32850-MA, Modification P00002 to
Grant No. DAAH04-94-G-0267

George Mason University
Attn: Ms Margaret Hanson
Sponsored Program Administration
4400 University Drive
Fairfax, Virginia 22030

CONCURRENCE		
BRANCH CHIEF		
CLOSING CLK		
AUTHOR	PA	
TYPIST	He	27 Sep

Dear Ms Hanson:

Enclosed for your retention is the duplicate original signed copy of the subject modification.

Sincerely,

Patsy S. Ashe
Grants Officer

Enclosure

Copy Furnished:

ONR

✓

U. S. ARMY RESEARCH OFFICE
4300 SOUTH MIAMI BLVD.
P. O. BOX 12211
RESEARCH TRIANGLE PARK, NORTH CAROLINA 27709-2211

RESEARCH GRANT MODIFICATION

1. ARO PROPOSAL NUMBER: 32850-MA
2. GRANT NUMBER: DAAH04-94-G-0267
3. MODIFICATION NUMBER: P00002
4. GRANTEE NAME AND ADDRESS: George Mason University
4400 University Drive
Fairfax, Virginia 22030-4444
5. PRINCIPAL INVESTIGATOR(S): Dr. Edward J. Wegman
6. GRANTEE REQUEST FOR MODIFICATION (IF APPLICABLE): N/A
7. DESCRIPTION OF MODIFICATION:

A. In accordance with Article 12 of the Grant Schedule entitled OPTIONS FOR ADDITIONAL PERIODS OF RESEARCH, Article 8 of the Grant Schedule is increased as follows:

	Award Amount	Funded Amount
Previous Amount	\$ 95,000	\$ 95,000
Amount of Increase	80,000	80,000
Revised Amount	\$175,000	\$175,000

B. The performance period of the grant as specified in Article 8 of the Grant Schedule is changed as follows:

FROM: 15 July 1994 - 14 November 1995

TO: 15 July 1994 - 14 November 1996

C. Article 9 entitled APPROPRIATION DATA is modified to include the following:

2162040 66A-7270 P611102.H5705-2583 S31124 \$80,000
6H5705/6MA32850/6AROX94XGX0267

D. Grant payments for the amount of the increase shall be made in accordance with the following schedule of payments:

Payment No.	Payment Date	Payment Amount
1	1 December 1995	\$20,000
2	1 March 1996	\$20,000
3	1 June 1996	\$20,000
4	1 September 1996	\$18,000
5	Upon receipt of final technical report	\$ 2,000

The grantee shall advise the grant officer if at any time an adjustment to the above payment schedule is required due to a variance between projected and experienced expenditures.

All other provisions remain unchanged.

UNITED STATES OF AMERICA
U. S. Army Research Office



PATSY S. ASHE

Grants Officer

Date: 01 DEC 1995

Award

Mod 3



DEPARTMENT OF THE ARMY
 ARMY RESEARCH OFFICE
 P.O. BOX 12211
 RESEARCH TRIANGLE PARK, NC 27709-2211



REPLY TO
 ATTENTION OF

NOV 22 1995

AMXRO-AAA

Subject: Proposal No. P-32850-MA, Modification P00003
 to Grant No. DAAH04-94-G-0267

George Mason University
 Sponsored Program Administration
 ATTN: Ms Margaret Hanson
 4400 University Drive
 Fairfax, Virginia 22030

CONCURRENCE		
BRANCH CHIEF		
CLOSING CLK	MS	
AUTHOR	MS	25 Sep
TYPIST		

Dear Ms Hanson:

Enclosed for your retention is a copy of the subject modification.

Sincerely,

PSA

Patsy S. Ashe
 Grants Officer

Enclosure

Copy Furnished:

ONR

✓

U.S. ARMY RESEARCH OFFICE
4300 SOUTH MIAMI BLVD.
P. O. BOX 12211
RESEARCH TRIANGLE PARK, NORTH CAROLINA 27709-2211

RESEARCH GRANT SCHEDULE

1. ARO PROPOSAL NUMBER: P-32850-MA
2. GRANT NUMBER: DAAH04-94-G-0267
3. MODIFICATION NUMBER: P00003
4. GRANTEE NAME AND ADDRESS: George Mason University
4400 University Drive
Fairfax, Virginia 22030
5. PRINCIPAL INVESTIGATOR(S): Dr. Edward J. Wegman
6. GRANTEE REQUEST FOR MODIFICATION (IF APPLICABLE): N/A
7. DESCRIPTION OF MODIFICATION:

A. In accordance with Article 12 of the Grant Schedule entitled OPTIONS FOR ADDITIONAL PERIODS OF RESEARCH, Article 8 of the Grant Schedule is increased as follows:

	<u>Award Amount</u>	<u>Funded Amount</u>
Previous Amount	\$175,000	\$175,000
Amount of Increase	<u>65,000</u>	<u>65,000</u>
Revised Amount	\$240,000	\$240,000

B. The performance period of the grant as specified in Article 7 of the Grant Schedule is changed as follows:

FROM: 15 July 1994 - 14 November 1996

TO: 15 July 1994 - 14 July 1997

C. Article 9 entitled APPROPRIATION DATA is modified to include the following:

2172040 76A-7270 P611102.H5705-2583 S31124
7X05MA/7MA32850/DAAH0494G0267 \$65,000

Award

Mod 4

✓

U.S. ARMY RESEARCH OFFICE
4300 SOUTH MIAMI BLVD.
P. O. BOX 12211
RESEARCH TRIANGLE PARK, NORTH CAROLINA 27709-2211

RESEARCH GRANT SCHEDULE - MODIFICATION

1. ARO PROPOSAL NUMBER: P-32850-MA
2. GRANT NUMBER: DAAH04-94-G-0267
3. MODIFICATION NUMBER: P00004
4. GRANTEE NAME AND ADDRESS: George Mason University
Office of Sponsored Programs
4400 University Drive
Fairfax, Virginia 22030-4444
5. PRINCIPAL INVESTIGATOR(S): Dr. Edward J. Wegman
6. GRANTEE REQUEST FOR MODIFICATION: Letter of 12 June 1997
7. DESCRIPTION OF MODIFICATION:
 - A. Article 7 of the Grant Schedule entitled **PERFORMANCE PERIOD**, is changed to extend the performance period as follows:

FROM: 15 July 1994 - 14 July 1997
TO: 15 July 1994 - 1 October 1997
 - B. Article 9 entitled **APPROPRIATION DATA** remains the same:
2172040 76A-7270 P611102.H5705-2583 S31124 \$0
7X05MA/7MA32850/DAAH0494G0267
 - C. Total grant cost shall neither increase nor decrease as a result of this approval.

All other provisions remain unchanged.

UNITED STATES OF AMERICA
U.S. Army Research Office



PATSY S. ASHE
Grants Officer

Date: 25 JUN 1997