NATIONAL SCIENCE FOUNDATION 4201 Wilson Boulevard ARLINGTON, VIRGINIA 22230



MEMORANDUM

DATE:

March 21, 2006

TO:

Bradley Poston, Interim Director

Division of Acquisition and Cooperative Support (DACS)

Deborah N. Cauton

FROM: Deborah H. Cureton

Associate Inspector General for Audit

SUBJECT: NSF OIG Audit Report No. OIG-06-1-003, Audit of University Navstar

Consortium (UNAVCO), Inc.'s Fiscal Year 2003 and 2004 Incurred Costs

In response to your request for an audit of the UNAVCO Fiscal Year (FY) 2003-2004 incurred cost proposal submission claimed under award Nos. EAR-0323700, EAR-0318549, and EAR-0321760, we contracted with the Defense Contract Audit Agency (DCAA), Denver Branch Office to perform audits that: 1) determine the adequacy of UNAVCO's accounting system to record NSF award costs accurately, 2) determine allowability, allocability, and reasonableness of the costs UNAVCO incurred under the awards in accordance with the grant terms and applicable government regulations, 3) verify whether UNAVCO is accounting for government owned property accurately, 4) verify if UNAVCO is adhering to NSF Grant Officer Guidance regarding Separation Agreement Compensation and, 5) confirm whether Executive Compensation is reasonable. These DCAA audits were performed in accordance with Generally Accepted Government Auditing Standards. The DCAA Audit Reports are included as Attachments to this letter.

The UNAVCO Accounting System DCAA Audit Report, dated September 30, 2005, was previously provided to your office and determined that UNAVCO's accounting system could adequately account for NSF award costs.



DEFENSE CONTRACT AUDIT AGENCY

AUDIT REPORT NO. 3121-2003J10100023



October 7, 2005

PREPARED FOR: Office of Inspector General

ATTN: Deborah H. Cureton

Associate Inspector General for Audit

National Science Foundation 4201 Wilson Boulevard Arlington, VA 22230

PREPARED BY: DCAA Denver Branch Office

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Lakewood, CO 80235-2327

Telephone No. (303) 969-5000 FAX No. (303) 969-5056

E-mail Address dcaa-fao3121@dcaa.mil

SUBJECT: Audit Report on UNAVCO, Inc. FY 2003 Incurred Cost

REFERENCES: Client Reference ID: OIG-0541756

Relevant Dates: See Page 8

AUDITEE: University Navstar Consortium, Inc.

6350 Nautilus Drive Boulder, CO 80301

REPORT RELEASE RESTRICTIONS: See Page 9

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SUBJECT OF AUDIT

We examined the University Navstar Consortium, Inc. (UNAVCO) July 15, 2005, certified direct cost proposal and related books and records for reimbursement of FY 2003 incurred costs. The purpose of the examination was to determine allowability of direct costs and recommend contracting officer-determined direct costs for January 1, 2003 through December 31, 2003. The proposed direct costs are for cost reimbursable grants listed in Exhibit A, page 3. A copy of UNAVCO's Certificate of Final Direct Costs, dated July 15, 2005, is included as Appendix 1 to the report (see page 11).

The proposal is the responsibility of the auditee. Our responsibility is to express an opinion based on our examination.

SCOPE OF AUDIT

We conducted our examination in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the examination to obtain reasonable assurance about whether the data and records examined are free of material misstatement. An examination includes:

- evaluating the auditee's internal controls, assessing control risk, and determining the extent of audit testing needed based on the control risk assessment;
- examining, on a test basis, evidence supporting the amounts and disclosures in the data and records evaluated;
- assessing the accounting principles used and significant estimates made by the auditee;
- evaluating the overall data and records presentation; and
- determining the need for technical specialist assistance.

We evaluated the proposal using the applicable requirements contained in the:

- Office of Management and Budget Circular A-110 (OMB Circular A-110);
- OMB Circular A-122; and
- OMB Circular A-133.

Our assessment of control risk reflects that we have not specifically tested the effectiveness of UNAVCO's accounting system and related internal controls. The scope of our examination reflects our assessment of control risk and includes tests of compliance with laws and regulations that we believe provide a reasonable basis for our opinion. See Auditee Organization and Systems for comments related to the accounting system (page 7).

RESULTS OF AUDIT

Direct Costs

In our opinion, claimed direct costs are acceptable and are provisionally approved, pending final acceptance. Final acceptance of amounts proposed under Government grants does not take place until performance under the grant is completed and accepted by the cognizant authorities and the audit responsibilities have been completed.

Exhibit A is Schedule of Allowable Costs by Grant and Results of Examination. Exhibit B is the Summary Schedule of Cumulative Allowable Costs/Amounts on Cost/Cost Reimbursable and Sub-Recipients through December 31, 2003.

<u>Cumulative Allowable Cost Worksheet (CACWS)</u>. The costs noted on the schedule of cumulative allowable costs in Exhibit B, page 5 represent costs that are considered allowable under the listed grants and are, therefore, reimbursable. However, these direct costs are contracting officer (CO) determined and are, therefore, subject to negotiation. Upon receipt of negotiated final direct costs from the CO, we will provide a supplemental Final CACWS if negotiated direct costs differ from audit recommended direct costs. For those grants identified as "Ready to Close," the information on the Final CACWS should be used to close out grants. Individual grant audit closing statements will only be issued if requested by the CO.

We discussed the results of our examination with an exit conference held on October 6, 2005. concurred in the results of our audit.

EXHIBIT A Page 1 of 2

		Salaries	Salaries			Travel	Travel		ticipant
Project No.	Job Grant No.	Senior	Other	Fringe	Equipment	Domestic	International	S	Support
0001	EAR-0200066							\$	8,371
0002	EAR-0229402							\$	3,136
0003	EAR-0207982							\$	(11,104)
0004	EAR-0214355							\$	-
0005	EAR-0331712							\$	33,814
0006	EAR-0321760 }							\$	1,979
0013 Rest	EAR-0321760							\$	-
0007	EAR-0323700							\$	20,851
8000	EAR-0323704							\$	-
0009	EAR-0318549							\$	3,974
0013 -03	EAR-0408228							\$	-
0013 -08	EAR-0440399							\$	-
0014	EAR-0346147							\$	-
0015	Various PO's							\$	-
0017	EAR-0453975							\$	-

EXHIBIT A Page 2 of 2

0001	EAR-0200066	\$ 951	\$ 153,607
0002	EAR-0229402	\$ 46,950	\$ 556,745
0003	EAR-0207982	\$ 634	\$ (10,316)
0004	EAR-0214355	\$ -	\$ 159,516
0005	EAR-0331712	\$ 57	\$ 35,756
0006	EAR-0321760 }	\$ 89,692	\$ 1,059,529
0013 Rest	EAR-0321760	\$ 6,974	\$ 55,285
0007	EAR-0323700	\$ 29,568	\$ 735,735
8000	EAR-0323704	\$ -	\$ -
0009	EAR-0318549	\$ 11,034	\$ 113,616
0013 -03	EAR-0408228	\$ -	\$ 6,080
0013 -08	EAR-0440399	\$ -	\$ -
0014	EAR-0346147	\$ -	\$ -
0015	Various PO's	\$ -	\$ 301
0017	EAR-0453975	\$ -	\$ -

EXHIBIT B Page 1 of 2

N

Summary Schedule of Cumulative Allowable Costs/Amounts on Cost/Flexibly Priced Grants and Sub-Recipients FY 2003

Audit Unaudited Recommended Total Assist **Direct Costs Direct Costs** Allowable Less Amounts FY FY Included in Ready Contract Costs 12/31/2002 12/31/2003 Fee Limitation (Include Fee) Total to Project No. Job Grant No. (Note 1) (Note 2) FY 2003 Subtotal (Note 3) (Note 5) Close (Note 4) 0001 EAR-0200066 91,925 \$ 153,607 245,532 \$ \$ 245,532 \$ N \$ 0002 \$ 709,001 \$ 152,256 556,745 \$ 709,001 EAR-0229402 Y 0003 EAR-0207982 \$ 50,000 \$ (10,316) ** 39,684 \$ 39,684 \$ Y \$ N 0004 \$ 159,516 \$ EAR-0214355 159,516 \$ 159,516 0005 EAR-0331712 \$ \$ 35,756 35,756 35,756 \$ Y \$ 0006 EAR-0321760 1,059,529 \$ 25,000 1,084,529 1,084,529 N 0013 EAR-0321760 \$ 55,285 \$ 55,285 \$ \$ 55,285 \$ N 0007 \$ \$ \$ 25,000 760,735 760,735 N EAR-0323700 735,735 \$ \$ 0009 \$ \$ 113,616 113,616 N 113,616 EAR-0318549 0013 -03 EAR-0408228 \$ 6,080 \$ 6,080 \$ 6,080 \$ N

\$

301

\$

\$

301

\$

See next page for notes.

Various PO's

\$

\$

301

0015

*The direct costs for FY 2003 are the audit recommended direct costs. Although UNAVCO concurred in the audit recommended direct costs, these direct costs are subject to Contracting Officer (CO) negotiation. Upon receipt of negotiated final direct costs from the CO, we will provide a supplemental Final CACWS if negotiated direct costs differ from audit recommended direct costs. For those grants identified as "Ready to Close," the information on the Final CACWS should be used to close out grants. Individual grant audit closing statements will only be issued if requested by the CO.

**() is a decrease in cost. UNAVCO provided funding for a UCAR workshop in FY 2002. However, the workshop costs totaled \$39,684. The final billed was not submitted until FY 2003. The adjustment was made in FY 2003 to credit back NSF.

Notes:

- (1) These are direct costs by grant for FY 2002. However, NSF did not request DCAA to audit FY 2002 direct costs claimed by UNAVCO.
- (2) These are audit recommended direct costs by grant for FY 2003.
- (3) Grant limitation include costs incurred that are (i) in excess of grant ceiling rates, (ii) unallowable per grant, (iii) outside the period of performance, or (iv) in excess of grant ceiling amounts that are not already excluded.
- (4) The cumulative allowable amounts in this column, including fee, are not to exceed grant-ceiling amounts.
- (5) Costs in this column are considered unresolved pending sub-recipient completion and receipt of final cumulative allowable sub-recipient costs. See the attached supporting schedule for details of sub-recipients included in this amount.

AUDITEE ORGANIZATION AND SYSTEMS

1. Organization:

UNAVCO, Inc. is a non-profit membership-governed organization founded by the National Science Foundation and NASA that supports earth science by advancing high-precision geodetic techniques such as the Global Positioning System (GPS). It is the operating arm of the 100-member international consortium of universities using GPS for scientific research, supporting research into earth processes and hazards via GPS geodesy, and developing and supporting new low-cost GPS technology.

UNAVCO, Inc. was created as an independent non-profit corporation in 2001, after splitting off from the University Corporation for Atmospheric research (UCAR). UNAVCO employs 85 people. Grants for fiscal year ended 2003 were \$2.9 million.

2. Accounting System:

We noted UNAVCO changed its Accounting System Policies and Procedures in March 2005. Therefore, the accounting system performed August 1, 2005 would not be applicable to incurred costs claimed in FY 2003. As a result, our examination reflects our assessment of control risk and includes tests of compliance with laws and regulations that we believe provide a reasonable basis for our opinion.

UNAVCO's accounting period is from January 1 to December 31. UNAVCO maintains an accounting system on the accrual basis in accordance with generally accepted accounting principles. UNAVCO's accounting system is posted on a current basis. Appropriate adjusting entries are made at the end of each month and at year end. UNAVCO prepares financial statements on an annual basis. The annual financial statements are audited by external CPAs.

UNAVCO maintains a job cost accounting system which is fully integrated in the overall accounting system, wherein grants are assigned individual project numbers and direct costs are identified and charged to those numbers. Indirect costs are identified with and accumulated under individual account pools and anything related to the headquarters pool was charged directly to the headquarters pool. All costs are then allocated using the following percentages: 55 percent allocated to Grant EAR-0321760, 30 percent allocated to grant EAR-0323700; and 15 percent allocated to grant EAR-0318549.

DCAA PERSONNEL

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General information on audit matters is available at http://www.dcaa.mil.

RELEVANT DATES

Request for Audit: NSF – Dated July 1, 2005 and received July 11, 2005

AUDIT REPORT AUTHORIZED BY:

/s/ Larry N. Koppenhaver for S. M. WENGER
Branch Manager

AUDIT REPORT DISTRIBUTION AND RESTRICTIONS

DISTRIBUTION

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National Science Foundation 4201 Wilson boulevard Arlington, VA 22230

UNAVCO, Inc. 6350 Nautilus Drive Boulder, CO 80301 (Copy furnished thru NSF)

RESTRICTIONS

- 1. Information contained in this audit report may be proprietary. It is not practical to identify during the conduct of the audit those elements of the data which are proprietary. Make proprietary determinations in the event of an external request for access. Consider the restrictions of 18 U.S.C. 1905 before releasing this information to the public.
- 2. Under the provisions of Title 32, Code of Federal Regulations, Part 290.7(b), DCAA will refer any Freedom of Information Act requests for audit reports received to the cognizant contracting agency for determination as to releasability and a direct response to the requestor.

3.	Do not use the information contained in this audit report for purposes other than action on the subject of this audit without first discussing its applicability with the auditor.

III. CERTIFICATE OF DIRECT COSTS

UNAVCO, Inc., Boulder, Colorado July 15, 2005

I have reviewed the direct costs submitted by UNAVCO for Calendar Year 2003 and certify that:

- All costs included in the UNAVCO, Inc. proposal submitted to establish final direct costs of Direct Projects are allowable in accordance with the requirements of the cooperative agreements, grants, and contracts to which they apply, and with OMB Circular A-122, Cost Principles for Non-Profit Organizations.
- This proposal does not include any costs which are unallowable under applicable
 Federal cost principles. This certification covers but is not limited to costs of advertising,
 contributions, donations, bad debts, entertainment, fines and penalties, and defense of
 fraud proceedings.
- UNAVCO, Inc. has been and is in compliance with the A-122 requirements and standards governing lobbying costs.
- 4. All costs included in this proposal are properly allocable to cooperative agreements, grants, and contracts award by The National Science Foundation on the basis of a beneficial or causal relationship between the expenses incurred and the awards to which they are allocated in accordance with applicable Federal cost principles.

Subject to the provisions of the Program Fraud Civil Remedies Act of 1986 (31 USC 3801 et seq.), the False Claims Act (18 USC 287 and 31 USC 3729), the False Statements Act (18 USC 1001), and the implementing regulations of The National Science Foundation, I declare to the best of my knowledge the foregoing is true and correct.

Contractor:	UNAVCO, Inc.	ı X
Signature:		7/15/03
Authorized Official:		Date
Title:		



DEFENSE CONTRACT AUDIT AGENCY

AUDIT REPORT NO. 3121–2004J10100029



October 19, 2005

PREPARED FOR: Office of Inspector General

ATTN: Deborah H. Cureton

Associate Inspector General for Audit

National Science Foundation 4201 Wilson Boulevard Arlington, VA 22230

PREPARED BY: DCAA Denver Branch Office

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SUBJECT: Audit Report on UNAVCO, Inc. FY 2004 Incurred Cost

REFERENCES: Client Reference ID: OIG-0541756

Relevant Dates: See Page 18

AUDITEE: University Navstar Consortium, Inc

6350 Nautilus Drive Boulder, CO 80301

REPORT RELEASE RESTRICTIONS: See Page 19

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SUBJECT OF AUDIT

We examined the University Navstar Consortium, Inc. (UNAVCO) June 24, 2005, certified final indirect cost proposal and related books and records for reimbursement of FY 2004 incurred costs. The purpose of the examination was to determine allowability of direct and indirect costs and recommend contracting officer-determined indirect cost rates for January 1, 2004 through December 31, 2004. The proposed rates apply primarily to the cost reimbursable grants listed in Exhibit C, page 8. A copy of UNAVCO's Certificate of Final Indirect Costs, dated June 24, 2005, is included as Appendix 1 to the report (see page 21).

The proposal is the responsibility of the auditee. Our responsibility is to express an opinion based on our examination.

EXECUTIVE SUMMARY

We questioned .36 percent of the claimed G&A rate and \$0.40 cents of the claimed facilities allocation rate. The questioned rates result from questioning the following costs in the G&A and facilities pool. We took no exception to UNAVCO's proposed fringe rate.

Cost Element	<u>Amount</u>
G&A Pool	\$35,015
Facilities Pool	\$ 9,086

Additionally, we recommend an upward adjustment of \$33,851 to claimed direct costs as shown below. This upward adjustment is the result of an allocation error as explained in Exhibit C, page 8 of this report, and is summarized below by grant.

<u>Grant</u>	<u>Amount</u>
EAR-0321760	\$18,618
EAR-0323700	\$10,155
EAR-0318549	\$ 5,078

SCOPE OF AUDIT

We conducted our examination in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the examination to obtain reasonable assurance about whether the data and records examined are free of material misstatement. An examination includes:

- evaluating the auditee's internal controls, assessing control risk, and determining the extent of audit testing needed based on the control risk assessment;
- examining, on a test basis, evidence supporting the amounts and disclosures in the data and records evaluated;
- assessing the accounting principles used and significant estimates made by the auditee:
- evaluating the overall data and records presentation; and

• determining the need for technical specialist assistance.

We evaluated the proposal using the applicable requirements contained in the:

- Office of Management and Budget Circular A-110 (OMB Circular A-110);
- OMB Circular A-21;
- OMB Circular A-122: and
- OMB Circular A-133.

Our assessment of control risk reflects that we have not specifically tested the effectiveness of UNAVCO's accounting system and related internal controls. The scope of our examination reflects our assessment of control risk and includes tests of compliance with laws and regulations that we believe provide a reasonable basis for our opinion. See Auditee Organization and Systems for comments related to the accounting system (page 16).

RESULTS OF AUDIT

Direct Costs

In our opinion, the auditee's claimed direct costs are acceptable as adjusted by our examination. We recommended an upward adjustment of \$33,851 of direct costs proposed under Government grants. The upward adjustments were the result of an allocation error in the UNAVCO Solomon system as explained in Appendix 9, page 36. Questioned direct costs by element within specific contracts are presented in Exhibit C, page 8. Direct costs not questioned are provisionally approved pending final acceptance. Final acceptance of amounts proposed under Government grants does not take place until performance under the grant is completed and accepted by the cognizant authorities and the audit responsibilities have been completed.

Indirect Rates

In our opinion, the auditee's proposed indirect rates are acceptable as adjusted by our examination. The examination results and recommendations are presented on page 3.

Summary Results of Audit January 1, 2004 through December 31, 2004

	Claim	ned		Questioned					
		Indirect					Indirect	Audited	
Indirect	Expense	Cost	E	Expense	Al	location	Cost	Indirect	
Category	Pool	Rate		Pool		Base	Rate	Rate	Ref
G&A (a)		16.80%	\$	35,015	\$	-	0.36%	16.44%	Exhibit A
Fringe (b)		50.81%	\$	-	\$	-	0.00%	50.81%	*
Facilities (c)		\$ 28.19	\$	9,086	\$	-	\$ 0.40	\$ 27.79	Exhibit B

- (a) Allocation Base–Modified Total Direct Costs (\$9,811,181)
- (b) Allocation Base–Total Salaries and Wages (
- (c) Allocation Base–Net Assignable Square Feet (22,926)

Exhibit A is the Statement of Proposed G&A Expenses and Results of Examination. Exhibit B is the Statement of Proposed Facilities Expenses and Results of Examination. Exhibit C is the Schedule of Allowable Costs by Grant and Results of Examination. Exhibit D is the Summary Schedule of Cumulative Allowable Costs/Amounts on Cost/Cost Reimbursable and Sub-Recipients through December 31, 2004.

Cumulative Allowable Cost Worksheet (CACWS). The costs noted on the schedule of cumulative allowable costs in Exhibit D, page 14, represent costs that are considered allowable under the listed grants and are, therefore, reimbursable. However, these rates are contracting officer (CO) determined and are, therefore, subject to negotiation. Upon receipt of negotiated final rates from the CO, we will provide a supplemental Final CACWS if negotiated rates differ from audit recommended rates. For those grants identified as "Ready to Close," the information on the Final CACWS should be used to close out grants. Individual grant audit closing statements will only be issued if requested by the CO.

We discussed the results of our examination with Mr. Cecil Jones, CFO and Ms. Sandra Garcia, Accounting Manager, in an exit conference held on September 29, 2005. UNAVCO concurred in the results of our audit. We provided a draft copy of the Results of Audit to the auditee's representative at the exit conference. The complete text of the auditee's response appears as Appendix 9.

^{*} Our examination of the Fringe overhead did not disclose any exceptions.

Statement of Proposed G&A Expenses and Results of Examination

Cost Element	 Claimed	ed Questioned			oncurred	Subnote	
Facilities Charge		\$	414	\$	414	a	
Facilities Allocation			1,165		1,165	b	
Material Supplies			10,332		10,332	c	
Other Costs			18,656		18,656	d	
Part Supp Travel			86		86	e	
Travel Domestic			4,362		4,362	f	
Other G&A Costs						g	
Total G&A Pool	\$ 1,648,254	\$	35,015	\$	35,015		
MTDC Allocation Base	\$ 9,811,181					h	
G&A Rate							
Claimed	16.80%						
Questioned	0.36%						
Audit Recommended Rate	16.44%						

Explanatory Notes

1. Summary of Conclusions:

We questioned \$35,015 of G&A pool costs as shown below.

- a) \$414 of facilities costs because UNAVCO claimed more facilities costs than recorded in its general ledger.
- b) \$1,165 of facility allocation costs because of questioned costs in the facility pool. Therefore, the facility allocation to the G&A pool was decreased by \$1,165.
- c) \$10,332 material supplies because UNAVCO claimed more material and supplies costs than recorded in its general ledger.
- d) \$18,656 of other costs because UNAVCO claimed more other costs than recorded in its general ledger.
- e) \$86 of participant support travel because UNAVCO claimed more travel expenses than recorded in its general ledger.

EXHIBIT A Page 2 of 2

- f) \$4,362 of travel domestic costs because UNAVCO claimed more domestic travel expenses than recorded in its general ledger.
- g) Other proposed G&A pool costs, no exceptions noted.
- h) Proposed G&A base costs, no exceptions noted.

2. Basis of Auditee's Cost:

UNAVCO proposed its final rates using the FY 2004 actual costs charged into the direct projects and the three indirect cost pools.

3. Audit Evaluation:

We performed the following audit procedures:

- Reconciled the Auditee's claimed detailed G&A pool amounts to its general ledger.
- Verified claimed G&A pool expenses are allowable according to Circular A-122, Attachment B and UNAVCO's Cost Policy and Procedures.
- Questioned the difference between claimed costs and those costs recorded in UNAVCO's general ledger.

4. Auditee's Reaction:

UNAVCO concurred in the questioned G&A costs recorded in its G&A pool. See Appendix 9 for the Auditee's full response.

EXHIBIT B Page 1 of 2

Statement of Proposed Facilities Expenses and Results of Examination

Cost Element		Claimed	Que	estioned	C	oncurred	Ref
Grounds Maintenance/Snow Removal			\$	9,086	\$	9,086	a
Other Facility Costs				_		_	b
Total Facility Pool		\$ 646,295	\$	9,086	\$	9,086	
Square Footage Base		22,926		-		-	c
Square Footage Rate							
Claimed	\$ 28.19						
Questioned	\$ 0.40						
Audit Recommended Rate	\$ 27.79						
			Recor	nmended			
Project Allocation		Claimed	Adj	ustment	A	llowable	
EAR-0321760		\$289,093	\$	4,064	\$	285,029	Schedule C
EAR-0323700		\$268,712	\$	3,778	\$	264,934	Schedule C
EAR-0318549		\$ 5,638	\$	79	\$	5,559	Schedule C
G&A Pool		\$ 82,852	\$	1,165	\$	81,687	Exhibit A
Total		\$646,295	\$	9,086	\$	637,209	

Explanatory Notes

1. Summary of Conclusions:

We questioned \$9,086 of the claimed facility pool costs as shown below.

- a) \$9,086 of grounds maintenance/snow removal costs because these costs were material costs that should have been charged direct to Project 15, Various Purchase Orders Non-NSF. Therefore, we questioned the costs in the facility pool and recommended an upward adjustment to the direct material costs, Project 15 (Non-NSF).
- b) Other facility costs, no exceptions noted.
- c) Claimed facility base costs, no exceptions noted.

2. Basis of Auditee's Cost:

UNAVCO proposed its final rates using the FY 2004 actual costs charged into the direct projects and the three indirect cost pools.

3. Audit Evaluation:

We performed the following audit procedures:

- Reconciled the Auditee's claimed detailed facility pool amounts to its general ledger.
- Verified claimed facility pool expenses are allowable according to Circular A-122, Attachment B and UNAVCO's Cost Policy and Procedures.
- Verified the mathematical accuracy of the facility rate calculation.
- Questioned the difference between claimed costs and recorded facility costs.

4. Auditee's Reaction:

UNAVCO concurred in the questioned facility costs recorded in its facility pool. See Appendix 9 for the Auditee's full response.

EXHIBIT C Page 1 of 6

Project #	Job Grant No.	Salaries-Senior	Salaries-Other	Fringe <u>50.81</u> %	Equipment	Travel-Domestic (Note 1)	Travel- International
0001	EAR-0200066						
0002	EAR-0229402						
0003	EAR-0207982						
0004	EAR-0214355						
0005	EAR-0331712						
0006	EAR-0321760						
0013 Rest	EAR-0321760						
0007	EAR-0323700						
8000	EAR-0323704						
0009	EAR-0318549						
0013 -03	EAR-0408228						
0013 -08	EAR-0440399						
0014	EAR-0346147						
0015	Various PO's						
0017	EAR-0453975						

EXHIBIT C Page 2 of 6

		Audit	Audit					
		Recommended	Recommended					
		Participant Suppt	Matls & Supplies				Fir	rst \$25K
Project #	Job Grant No.	(Note 1)	(Note 1)	Publications	Consultants	Computer Serv	Su	bawards
0001	EAR-0200066						\$	-
0002	EAR-0229402						\$	-
0003	EAR-0207982						\$	-
0004	EAR-0214355						\$	-
0005	EAR-0331712						\$	-
0006	EAR-0321760						\$	25,000
0013 Rest	EAR-0321760						\$	-
0007	EAR-0323700						\$	25,000
8000	EAR-0323704						\$	-
0009	EAR-0318549						\$	168,877
0013 -03	EAR-0408228						\$	-
0013 -08	EAR-0440399						\$	-
0014	EAR-0346147						\$	-
0015	Various PO's						\$	-
0017	EAR-0453975						\$	-

EXHIBIT C Page 3 of 6

					Audit		Audit		Audit							
				Red	commended	Re	commended	Re	commended		at Audited					
				1	Facilities		Direct	0	ther Direct		Total	Red	commended	Audited		
		Sı	ubawards	F	Allocation		Facilities		Costs		Direct	Rate		Recommended		
Project No.	Job Grant No.	((Note 3)		(Note 2)		(Note 1)		(Note 1)		Costs		<u>16.44</u> %	Total		
0001	EAR-0200066	\$	-	\$	-	\$	660	\$	340	\$	19,406	\$	207	\$	19,612	
0002	EAR-0229402	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	
0003	EAR-0207982	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	
0004	EAR-0214355	\$	-	\$	-	\$	-	\$	-	\$	130,247	\$	2,105	\$	132,352	
0005	EAR-0331712	\$	-	\$	-			\$	-	\$	-	\$	-	\$	-	
0006	EAR-0321760	\$	9,602	\$	285,029	\$	44,005	\$	57,393	\$	2,300,632	\$	367,239	\$	2,667,871	
0013 Rest	EAR-0321760							\$	8,995	\$	395,642	\$	38,098	\$	433,740	
0007	EAR-0323700	\$	252,168	\$	264,934	\$	212,255	\$	1,154,495	\$	8,416,940	\$	1,105,163	\$	9,522,104	
8000	EAR-0323704	\$	-	\$	-	\$	13,761	\$	22,244	\$	36,417	\$	5,987	\$	42,404	
0009	EAR-0318549	\$	961,524	\$	5,559	\$	8,553	\$	2,943	\$	1,454,938	\$	62,180	\$	1,517,118	
0013 -03	EAR-0408228	\$	-	\$	-	\$	-	\$	663	\$	78,105	\$	12,840	\$	90,945	
0013 -08	EAR-0440399	\$	-	\$	-	\$	3,434	\$	-	\$	31,000	\$	2,800	\$	33,800	
0014	EAR-0346147	\$	-	\$	-	\$	-	\$	931	\$	19,350	\$	161	\$	19,511	
0015	Various PO's	\$	-	\$	-	\$	188	\$	20,433	\$	216,625	\$	14,899	\$	231,523	
0017	EAR-0453975	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	

Explanatory Notes

1. <u>Direct Cost Increase</u>

a. Summary of Conclusions:

We recommend an upward adjustment of \$33,851, as outlined below because UNAVCO did not include these reimbursable costs in its incurred cost claim.

Facilities Charge Matls Supplies Other Costs Part Supp Travel Travel Domestic Subtotal



Facilities Charge Matls Supplies Other Costs Part Supp Travel Travel Domestic Subtotal



Facilities Charge Matls Supplies Other Costs Part Supp Travel Travel Domestic Subtotal



b. Basis of Auditee's Cost:

UNAVCO proposed its final rates using the FY 2004 actual costs charged into the direct projects and the three indirect cost pools.

c. Audit Evaluation:

We performed the following audit procedures:

- Reconciled the Auditee's claimed direct costs to its general ledger.
- Verified claimed costs are allowable according to Circular A-122, Attachment B and UNAVCO's Cost Policy and Procedures.
- Recommended an upward adjustment between the difference claimed in UNAVCO's incurred cost submission and those costs recorded in its general ledger.

d. Auditee's Reaction:

UNAVCO concurred in the recommended upward adjustment to direct claimed costs in its incurred cost submission. See Appendix 9 for the Auditee's full response.

2. <u>Facilities Allocation Adjustment</u>

a. Summary of Conclusions:

We questioned \$7,921 of the facility pool costs. Therefore, the facility allocation to the direct grants was decreased by \$7,921 as shown below.

Project Allocation	Claimed	Ad	justment	A	llowable
EAR-0321760	\$289,093	\$	4,064	\$	285,029
EAR-0323700	\$268,712	\$	3,778	\$	264,934
EAR-0318549	\$ 5,638	\$	79	\$	5,559
Total	\$ 563,443	\$	7,921	\$	555,522

b. Basis of Auditee's Cost:

UNAVCO proposed its final rates using the FY 2004 actual costs charged into the direct projects and the three indirect cost pools.

c. Audit Evaluation:

We performed the following audit procedures:

- Reconciled the Auditee's claimed direct costs to its general ledger.
- Verified claimed costs are allowable according to Circular A-122, Attachment B and UNAVCO's Cost Policy and Procedures.
- Questioned the difference between the claimed facility allocation costs and the audited recommended facility allocation cost.

d. Auditee's Reaction:

UNAVCO concurred in the recommended upward adjustment and the questioned facility allocation. See Appendix 9 for the Auditee's full response.

3. <u>Sub-award Assist Audits</u>

a. Summary of Conclusions:

After receiving the requested sub-award assist audits for Grant Nos. EAR-0318549 and EAR-0323700, we noted that both reports had no exceptions. Copies of the assist audit reports are found in Appendixes 7 and 8 beginning on page 29.

b. Basis of Auditee's Cost:

UNAVCO proposed its sub-award costs using the FY 2004 actual costs recorded in its general ledger.

c. Audit Evaluation

We performed the following procedure:

- Requested sub-award detail for all claimed sub-award costs.
- Selected the two highest sub-award recipients and requested assist audits from the cognizant DCAA office.

EXHIBIT D Page 1 of 2

Summary Schedule of Cumulative Allowable Costs/Amounts on Cost/Reimbursable Grants and Sub-Recipients FY 2004

					Audited															
		U	Inaudited	Rec	commended				Dir & Indir								Total	1	Assist	
		Di	rect Costs	D	irect Costs				Costs using					Ι	Less	P	Allowable	A	nounts	
			FY		FY			U	nsetteled Rates*					Co	ntract		Costs	Inc	uded in	Ready
		12	2/31/2002	1	2/31/2003	F	Fee		FY		Fee			Lim	itation	(In	clude Fee)		Γotal	to
Project No.	Job Grant No.	((Note 1)		(Note 2)	FY	2003		12/31/2004	FY	2004		Subtotal	(N	ote 3)		(Note 4)	(N	Note 5)	Close
0001	EAR-0200066	\$	91,925	\$	153,607	\$	-	\$	19,612	\$	-	\$	265,145	\$	-	\$	265,145	\$	-	Y
0002	EAR-0229402	\$	152,256	\$	556,745	\$	-	\$	-	\$	-	\$	709,001	\$	-	\$	709,001	\$	-	Y
0003	EAR-0207982	\$	50,000	\$	(10,316)	\$	-	\$	-	\$	-	\$	39,684	\$	-	\$	39,684	\$	-	Y
0004	EAR-0214355	\$	-	\$	159,516	\$	-	\$	132,352	\$	-	\$	291,868	\$	-	\$	291,868	\$	-	N
0005	EAR-0331712	\$	-	\$	35,756	\$	-	\$	-	\$	-	\$	35,756	\$	-	\$	35,756	\$	-	N
0006	EAR-0321760	\$	-	\$	1,059,529	\$25	5,000	\$	2,667,871	\$4	0,000	\$	3,792,400	\$	-	\$	3,792,400	\$	-	N
0013	EAR-0321760	\$	-	\$	55,285	\$	-	\$	433,740	\$	-	\$	489,025	\$	-	\$	489,025	\$	-	N
0007	EAR-0323700	\$	-	\$	735,735	\$25	5,000	\$	9,522,104	\$2	5,000	#	#########	\$	-	\$1	0,307,839	\$	-	N
8000	EAR-0323704	\$	-	\$	-	\$	-	\$	42,404	\$	-	\$	42,404	\$	-	\$	42,404	\$	-	N
0009	EAR-0318549	\$	-	\$	113,616	\$	-	\$	1,517,118	\$	-	\$	1,630,734	\$	-	\$	1,630,734	\$	-	N
0013 -03	EAR-0408228	\$	-	\$	6,080	\$	-	\$	90,945	\$	-	\$	97,025	\$	-	\$	97,025	\$	-	N
0013 -08	EAR-0440399	\$	-	\$	-	\$	-	\$	33,800	\$	-	\$	33,800	\$	-	\$	33,800	\$	-	N
0014	EAR-0346147	\$	-	\$	-	\$	-	\$	19,511	\$	-	\$	19,511	\$	-	\$	19,511	\$	-	N
0015	Various PO's	\$	-	\$	301	\$	-	\$	231,523	\$	-	\$	231,824	\$	-	\$	231,824	\$	-	N
0017	EAR-0453975	\$	_	\$	=	\$	-	\$	-	\$	_	\$	_	\$	-	\$	_	\$	-	N

See next page for notes.

*The rates used for FY 2004 are the audit recommended rates. Although UNAVCO concurred in the audit recommended rates, these rates are subject to Contracting Officer (CO) negotiation. Upon receipt of negotiated final rates from the CO, we will provide a supplemental Final CACWS if negotiated rates differ from audit recommended rates. For those grants identified as "Ready to Close," the information on the Final CACWS should be used to close out grants. Individual grant audit closing statements will only be issued if requested by the CO.

Notes:

- (1) These are direct costs by grant for FY 2002. However, NSF did not request DCAA to audit FY 2002 direct costs claimed by UNAVCO.
- (2) These are direct costs by grant for FY 2003.
- (3) Grant limitation include costs incurred that are (i) in excess of grant ceiling rates, (ii) unallowable per grant, (iii) outside the period of performance, or (iv) in excess of grant ceiling amounts that are not already excluded.
- (4) The cumulative allowable amounts in this column, including fee, are not to exceed grant-ceiling amounts.
- (5) Costs in this column are considered unresolved pending sub-recipient completion and receipt of final cumulative allowable sub-recipient costs. See the attached supporting schedule for details of sub-recipients included in this amount.

AUDITEE ORGANIZATION AND SYSTEMS

1. Organization:

UNAVCO, Inc. is a non-profit membership-governed organization founded by the National Science Foundation and NASA that supports earth science by advancing high-precision geodetic techniques such as the Global Positioning System (GPS). It is the operating arm of the 100-member international consortium of universities using GPS for scientific research, supporting research into earth processes and hazards via GPS geodesy, and developing and supporting new low-cost GPS technology.

UNAVCO, Inc. was created as an independent non-profit corporation in 2001, after splitting off from the University Corporation for Atmospheric research (UCAR). UNAVCO employs 85 people. Grants for fiscal year ended 2004 were \$14.7 million.

2. Accounting System:

We noted UNAVCO changed its Accounting System Policies and Procedures in March 2005. Therefore, the accounting system performed August 1, 2005 would not be applicable to incurred costs claimed in FY 2004. As a result, our examination reflects our assessment of control risk and includes tests of compliance with laws and regulations that we believe provide a reasonable basis for our opinion.

UNAVCO's accounting period is from January 1 to December 31. UNAVCO maintains an accounting system on the accrual basis in accordance with generally accepted accounting principles. UNAVCO's accounting system is posted on a current basis. Appropriate adjusting entries are made at the end of each month and at year end. UNAVCO prepares financial statements on an annual basis. The annual financial statements are audited by external CPAs.

UNAVCO maintains a job cost accounting system which is fully integrated in the overall accounting system, wherein grants are assigned individual project numbers and direct costs are identified and charged to those numbers. Indirect costs are identified with and accumulated under individual departments, which in turn are identified to the various indirect cost pools. Indirect expenses are recorded and billed to projects using provisional rates. The previsional rates are adjusted to actual rates at year end. The following schedule describes UNAVCO's indirect cost pools and related allocation bases, and the type of effort normally charged direct and indirect:

<u>Indirect Cost Pools and Allocation Bases</u>

<u>Indirect Cost Pool</u> <u>Allocation Base</u>

Fringe Benefit Rate Work-Time Salaries and Wages

Temp Fringe Benefit Rate Student Assistants/Temporary personnel

with only statutory benefits

Common Facility Rate (Building at 5350

Nautilus in Boulder)

General & Administrative (G&A) Rate

Net Assignable Square Feet (NASF)

Modified Total Direct Cost (MTDC)

DCAA PERSONNEL

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General information on audit matters is available at http://www.dcaa.mil.

RELEVANT DATES

Request for Audit: NSF – Dated July 1, 2005 and received July 11, 2005

AUDIT REPORT AUTHORIZED BY:

/s/ Larry N. Koppenhaver for S. M. WENGER
Branch Manager

AUDIT REPORT DISTRIBUTION AND RESTRICTIONS

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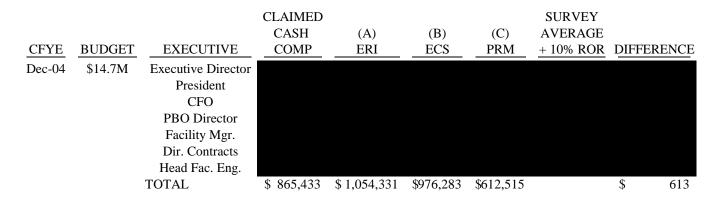
RESTRICTIONS

- 1. Information contained in this audit report may be proprietary. It is not practical to identify during the conduct of the audit those elements of the data which are proprietary. Make proprietary determinations in the event of an external request for access. Consider the restrictions of 18 U.S.C. 1905 before releasing this information to the public.
- 2. Under the provisions of Title 32, Code of Federal Regulations, Part 290.7(b), DCAA will refer any Freedom of Information Act requests for audit reports received to the cognizant contracting agency for determination as to releasability and a direct response to the requestor.

3.	Do not use the information contained in this audit report for purposes other than action on the subject of this audit without first discussing its applicability with the auditor.

OTHER MATTERS TO BE REPORTED EXECUTIVE COMPENSATION REVIEW FY 2004

As you requested, following is the DCAA Mid-Atlantic Executive Compensation Team analysis of executive compensation for FY 2004. DCAA evaluated compensation paid to the executives of UNAVCO and no exceptions were noted. Results follow:



Surveys Used In This Analysis:

- (A) ERI Economic Research Institute Executive Compensation Assessor; 2005 edition; Noncommercial Research Organization Industry based on SIC Code 8733; top executive positions (CEO, COO, CFO, Vice President Administration, Vice President, Contract Administration Director, and Engineering Director); total median cash compensation survey data; survey data aged as appropriate.
- (B) ECS Watson Wyatt Data Services, 04/05 edition; Top Management Comp Calculator; Industry Supersector: All Non Manufacturing; top executive positions (CEO, COO, CFO, Top Sector/Group Executive, Top Facility Management Executive, Top Contracts Executive, and Top Engineering Executive); total median cash compensation related to sales; survey data aged as appropriate.
- (C) PRM 2003 Management Compensation Report-Not-For-Profit Organizations conducted by PRM Consulting, Inc.; top executive positions (Top Executive Officer, Deputy Executive Officer, Top Financial Position, Top Administrative Position, and Top Engineering Position); total median cash compensation related to an Organization Budget between \$10 million to \$14.9 million and \$15 million to \$24.9 million for Not-For-Profit Organizations; survey data aged as appropriate.

APPENDIX 1 Page 2 of 2

Summary:

Based on this audit analysis, we have determined the claimed executive cash compensation (salary) for the top executives of UNAVCO, Inc. during the auditee's fiscal year ending December 2004 is reasonable under OMB Circular's A-21, A-122, and A-133. We consider the questioned costs of \$613 immaterial. We have deemed pension and health/life insurance reasonable based on a cursory examination. The audit position is based on comparisons with the same or similar executive positions from firms of the same size and industry as UNAVCO, Inc. All survey data was aged to the CFY 6/30 midpoint using Salary Budget Trend Data as published by WorldatWork. Our determination is based on a three survey composite with a 10 percent Range of Reasonableness (ROR) in accordance with the generally accepted compensation practices. Actual claimed compensation above relates to amounts shown on the Denver Branch Office request from

APPENDIX 2 Page 1 of 2

OTHER MATTERS TO BE REPORTED SEVERANCE PAY

	As you req	uested, followi	ng is the DCAA	Mid-At	lantic Exe	cutive Co	ompensation '	Team
analysis of the severance package paid to . We agreed that the DCAA								
•			tional purposes	only beca		_		
	•		ween NSF, UNA	•		, 01001100	puenage is ea	
under	a separation	agreement bet	ween 1151, 0112	1 V CO, a	iiu			ı
	DCA A avea	1,,,4,,,1,41,,,,,,,,,,		مداما ده		We als		
TINTAX			erance package p				so reviewed	22 1
		-	nd procedures to			_		
-			verified severan	_			not exceed th	e
separa	tion agreem	ent established	by the NSF gra	nt officer	: Results	follow:		
2.	<u>Severance</u>	Review FY 20	<u>04</u>					
				P	ASE SALAR	V	SURVEY	
				(A)	(B)	(C)	AVERAGE	REASONABLE
CFYE	BUDGET	EXECUTIVE	SEVERANCE	ERI	ECS	PRM	+ 10% ROR	SEVERANCE *
Dec-04	\$14.7M	EXECUTIVE	<u>BEVER IIVEE</u>		<u> LCB</u>	TIGHT	1 1070 ROR	BEVERNICE
DCC-04	φ14./141							
*Calcu	lation of Re	easonable Seve	rance:					
Caree	nation of ix	casonable beve	rance.					
Execut	ive Position	· ·						
	of Services							
			\					
	y Salary (C		37	26 1			
	•	per years of se		X	26 week	S		
Recom	mended Se	verance Amoui	nt	\$				

Surveys Utilized In The Base Salary Analysis:

- (A) ERI Economic Research Institute Executive Compensation Assessor; 2005 edition; Noncommercial Research Organization Industry based on SIC Code 8733; top executive position (CEO); total base salary compensation survey data; survey data aged as appropriate.
- (B) ECS Watson Wyatt Data Services, 04/05 edition; Top Management Comp Calculator; Industry Supersector: All Non Manufacturing; top executive position (CEO); total base salary related to sales; survey data aged as appropriate.
- (C) PRM 2003 Management Compensation Report-Not-For-Profit Organizations conducted by PRM Consulting, Inc.; top executive position (Top Executive Officer); base salary related to an Organization Budget between \$10 million to \$14.9 million for Not-For-Profit Organizations; survey data aged as appropriate.

APPENDIX 2 Page 2 of 2

Surveys Utilized In The Severance Analysis:

Global Severance Practice Survey by Right Management Consultants, 2002 Edition Severance and Change in Control Plans conducted by WorldatWork and Aon Consulting, 2003-04

Summary:

Based on this audit analysis, we have determined the severance for the
of UNAVCO, Inc. during the auditee's Fiscal Year ending December 2004 is unreasonable in the
mount of () under OMB Circular's A-21, A-122, and A-133. Our
everance determination is based on two reputable published severance pay surveys. Our base
alary determination is based on a three survey composite with a 10 percent Range of
Reasonableness (ROR) in accordance with the generally accepted compensation practices.
Actual claimed compensation above relates to amounts shown on the Denver Branch Office
equest from dated August 10, 2005.

OTHER MATTERS TO BE REPORTED
VERIFICATION OF SEVERANCE PAID TO
UNAVCO, Inc. agreed to pay, total severance of . However, NSF did not agree with the severance agreement, but agreed to The balance of () paid to Mr. Shiver was to be recorded as an unallowable expense and not to be reimbursed by NSF.
We verified of executive compensation expenses paid to the
was recorded as an unallowable cost and not included in UNAVCO's FY 2004 incurred cost
submission as a direct or indirect expense.

OTHER MATTERS TO BE REPORTED

GOVERNMENT OWNED EQUIPMENT AND CONTROL OF MATERIALS AND SUPPLIES

We evaluated UNAVCO's policies and procedures for accounting and inventorying government and UNAVO-owned equipment. We randomly selected various items of equipment from the Government owned equipment list and from the UNAVCO-owned equipment list. We verified the selected equipment was on the proper list per UNAVCO'S policy. We also verified the existence of the randomly selected equipment. We verified UNAVCO did not include depreciation costs for the government-owned equipment contained in its FY 2004 incurred cost claim.

During our evaluation, we found that UNAVCO had purchased about 400 items with a value of about \$590 thousand. Because these items, such as laptop computers, receivers, computers, generators, and digital cameras had a value of less than \$2,500, they were classified as materials and supplies. Although UNAVCO placed inventory bar codes on these items and placed them on a tracking list, it has not inventoried these items. When we randomly selected various items from this tracking list, we verified their existence. While we did not disclose any missing equipment purchased as materials and supplies, we recommend UNAVCO perform the following:

- Develop policies and procedures to require:
 - identifying items that require greater control and assign individual responsibility for these items
 - conducting inventories of control items at least annually, and other items on a rotating basis.

APPENDIX 5
Page 1 of 1

OTHER MATTERS TO BE REPORTED TRAVEL COST POLICIES AND PROCEDURES

Although not considered significant for FY 2004, we found the employees of UNAVCO included unallowable travel expenses in their reimbursable travel claims, ie. flowers for a new baby, missing receipts, and meals claimed over the Federal Travel Regulations (FTR) allowable per diem. We recommend UNAVCO provide its employees with a yearly refresher of its policy on travel and the costs that are allowable in accordance with its policy and procedures and that of OMB Circular A-122, Attachment B, 51.

III. CERTIFICATE OF INDIRECT COSTS

UNAVCO, Inc., Boulder, Colorado June 24, 2005

I have reviewed the indirect cost proposal dated June 24, 2005 and certify that:

- All costs included in the UNAVCO, Inc. proposal submitted to establish final rates for the costs of General & Administrative (G&A) activities. Fringe Benefits, and Common Facilities, for the period January 1, 2004 through December 31, 2004, are allowable in accordance with the requirements of the cooperative agreements, grants, and contracts to which they apply, and with OMB Circular A-122, Cost Principles for Non-Profit Organizations.
- This proposal does not include any costs which are unallowable under applicable Federal cost principles. This certification covers but is not limited to costs of advertising, contributions, donations, bad debts, entertainment, fines and penalties, and defense of fraud proceedings.
- UNAVCO, Inc. has been and is in compliance with the A-122 requirements and standards governing lobbying costs.
- 4. All costs included in this proposal are properly allocable to cooperative agreements, grants, and contracts award by The National Science Foundation on the basis of a beneficial or causal relationship between the expenses incurred and the awards to which they are allocated in accordance with applicable Federal cost principles.

Subject to the provisions of the Program Fraud Civil Remedies Act of 1986 (31 USC 3801 et seq.), the False Claims Act (18 USC 387 and 31 USC 3729), the False Statements Act (18 USC 1001), and the implementing regulations of The National Science Foundation, I declare to the best of my knowledge the foregoing is true and correct.

Contractor:	UNAVCO, Inc.	
Signature:		6/24 05
Authorized Official:		Date
Tide;		.,

APPENDIX 7 Page 1 OF 6



DEFENSE CONTRACT AUDIT AGENCY REPORT NO. 4171–2005M17900006



September 27, 2005

PREPARED FOR: Branch Manager

DCAA Denver Branch Office

ATTN: Ms. Madeleine G. Peterson, Auditor 7112 West Jefferson Ave., Suite 200

Lakewood, CO 80235-2327

PREPARED BY: DCAA North County Branch Office

7675 Dagget Street, Suite 320 San Diego, CA 92111-2241

> Telephone No. (858) 616-8899 FAX No. (858) 616-8898

E-mail Address deaa-fao4171@deaa.mil

SUBJECT: Report on Application of Agreed-Upon Procedures to the Direct Costs and

Indirect Rates Incurred under National Science Foundation Grant EAR-

0350028-01

REFERENCES: Prime recipient: University NAVSTAR Consortium (UNAVCO), Inc.

Relevant Dates: See Page 4

SUB-RECIPIENT: UCSD Scripps Institution of Oceanography

8602 La Jolla Shores Drive La Jolla, CA 92037

REPORT RELEASE RESTRICTIONS: See Page 5

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CONTENTS:	Subject of Application of Agreed-Upon Procedures	1
	Scope of Application of Agreed-Upon Procedures	1
	Results of Application of Agreed-Upon Procedures	2
	Sub-Recipient Organization and Systems	3
	DCAA Personnel and Report Authorization	4
	Report Distribution and Restrictions	5

Report No. 4171-2005M17900006

SUBJECT OF APPLICATION OF AGREED-UPON PROCEDURES

As requested by the Defense Contract Audit Agency (DCAA) Denver Branch Office, in an e-mail dated August 12, 2005, and as discussed subsequently with your office, we applied agreed-upon procedures to sub-recipent UCSD Scripps Institution of Oceanography's (UCSD) National Science Foundation (NSF) Grant EAR-0350028-01, under prime recipient, University NAVSTAR Consortium (UNAVCO), Inc. The purpose of our engagement was to assist you in determining UCSD's actual costs incurred to date under this grant based on the agreed-upon procedures.

SCOPE OF APPLICATION OF AGREED-UPON PROCEDURES

We have performed the mutually agreed-upon procedures enumerated below solely to assist you in evaluating UCSD Scripps Institution of Oceanography's NSF Grant EAR-0350028-01. This agreed-upon procedures engagement was performed in accordance with generally accepted government auditing standards. The sufficiency of the procedures is solely the responsibility of the requestor. Consequently, DCAA makes no representation regarding the sufficiency of the procedures described below, either for the purpose for which this report has been requested or for any other purpose.

The following agreed-upon procedures were applied:

- Verify a sample of five transactions from the grant's high dollar costs incurred from the operating ledger to the original source documents.
- Verify indirect rates to the university's Office of Management and Budget (OMB) A-21 audits or final rates.
- Verify that the indirect rates are applied correctly and the resulting indirect costs are correct.
- Provide the total costs incurred by UCSD on NSF Grant Number EAR 0350028-01, as recorded on the contractor's Operating Ledger, dated August 23, 2005.

Report No. 4171-2005M17900006

RESULTS OF APPLICATION OF AGREED-UPON PROCEDURES

This report pertains only to the performance of agreed-upon procedures to the direct costs incurred and indirect rates applicable to NSF Grant Number EAR 0350028-01. We were not engaged to, and did not perform an examination, the object of which would be the expression of an opinion on the subject matter of this report. Accordingly, we do not express such an opinion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

We provided and discussed the results of this application of agreed-upon procedures with UCSD, on September 26, 2005. The sub-recipient concurred with our results.

The results of our application of agreed-upon procedures are summarized as follows:

 Procedure: Verify a sample of five transactions from the grant's high dollar costs incurred from the operating ledger to original source documents.

Results of Procedure: We compared a judgmental sample of five transactions from the operating ledger to source documents and noted no differences.

2. Procedure: Verify indirect rates to the university's OMB A-21 audits or final rates.

Results of Procedure: We determined that an indirect rate of 26 percent was being applied to the direct costs on this grant from our review of UCSD's invoice remittance copies. We also were provided a copy of the Operating Ledger Transaction Detail that shows a rate of 26 percent being applied to the indirect costs. The rate applied is the UCSD Organized Research Activities off-campus indirect rate, as shown in the grant between UNAVCO, Inc. and UCSD. We verified the Organized Research Activities off-campus rate of 26 percent to the UCSD rate agreement letter dated July 1, 2004.

Procedure: Verify that the indirect rates are applied correctly and the resulting indirect costs are correct.

Results of Procedure: We obtained the Operating Ledger Transaction Detail for July 2004, and we observed that the Organized Research Activities off-campus rate was correctly applied to Accounts (Supplies Expense) and (Travel).

 Procedure: Provide the total costs incurred by UCSD on NSF Grant Number EAR 0350028-01, as recorded on the contractor's Operating Ledger, dated August 23, 2005.

Results of Procedure: As stated in UCSD's NSF Grant EAR 0350028-01 Cost Summary Report, UCSD has incurred costs of \$548.055 of the total award amount of \$851,462, as of August 23, 2005.

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Report No. 4171-2005M17900006

SUB-RECIPIENT ORGANIZATION AND SYSTEMS

1. Organization

UCSD Scripps Institution of Oceanography is one of the oldest, and largest centers for marine science research, graduate training, and public service in the world.

Scripps Institution was founded in 1903 as an independent biological research laboratory, which became part of the University of California in 1912. Scripps staff numbers approximately 1,300 people, including about 90 faculty, nearly 300 other scientists, and some 200 graduate students. The institution's annual expenditures total more than \$140 million.

2. Accounting System:

The University of California had an audit performed by PricewaterhouseCoopers, LLP in accordance with the requirements of Office of Management and Budget (OMB) Circular A-133, for the fiscal year ended June 30, 2004. Pursuant to OMB Circular A-133, Section __320(e)(2), the following written notification is provided to pass-through entities:

- The independent auditors' report on the University's financial statements expressed an unqualified opinion.
- The independent auditors' report on compliance with requirements applicable to major federal award programs expressed an unqualified opinion.
- The audit disclosed no findings relating to awards received from pass-through entities that require the notification of the pass-through entities by OMB Circular A-133.

A formal copy of the document which references the above information as well as summarized audit information can be found at: http://www.ucop.edu/costingpolicy/audit_info.html. Additional information about the UCSD's audit report is available online through the Federal Audit Clearinghouse website at: http://harvester.census.gov/sac/, under the organization name "UNIVERSITY of CALIFORNIA."

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Report No. 4171-2005M17900006

DCAA PERSONNEL

		Telephone No.
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	Barbara C. Disbrow, Supervisory Au	iditor (858) 616-8888
Other co	intact regarding this agreed upon proc	edures
report.	Deborah B. Stewart, Branch Manage	er (858) 616-8899
		FAX No.
	North County Branch Office	(858) 616-8898
		E-mail Address
	North County Branch Office	deaa-fao4171 a/deaa.mil
General	information on audit matters is availa	ble at http://www.dcaa.mil/.
	RELEV	ANT DATES
Request	for Agreed-Upon Procedures:	Dated and received August 12, 2005
REPOR	T AUTHORIZED BY:	

s Barbara Dishrow for Deborah B. Stewart Branch Manager DCAA, North County Branch Office

Audit Report No. 3121-2004J10100029

APPENDIX 7
Page 6 OF 6

Report No. 4171-2005M17900006

REPORT DISTRIBUTION AND RESTRICTIONS

DISTRIBUTION

Branch Manager DCAA Denver Branch Office ATTN: Ms. Madeleine G. Peterson, Auditor 7112 West Jefferson Ave., Suite 200 Lakewood, CO 80235-2327 E-mail Address deaa-fao3121 a deaa.mil madeleine.peterson a deaa.mil

RESTRICTIONS

- Information contained in this report may be proprietary. It is not practical to identify during
 the conduct of the evaluation those elements of the data which are proprietary. Make
 proprietary determinations in the event of an external request for access. Consider the
 restrictions of 18 U.S.C. 1905 before releasing this information to the public.
- Under the provisions of Title 32. Code of Federal Regulations, Part 290.7(b). DCAA will
 refer any Freedom of Information Act requests for reports received to the cognizant
 contracting agency for determination as to releasability and a direct response to the requestor.
- 3. This report was prepared using procedures agreed upon by the identified requestor. The reported findings do not include an audit opinion. The information contained in this report is intended solely for the use of the identified recipients, and should not be used by them or by others for any purpose other than that for which the procedures were established.

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DEFENSE CONTRACT AUDIT AGENCY REPORT NO. 4421– 2005T17900001



October 17, 2005

PREPARED FOR: Branch Manager

Denver Branch Office

ATTN: Madeleine G. Peterson, Senior Auditor

7112 W. Jefferson Ave., Suite 200 Lakewood, CO 80235-2327

PREPARED BY: DCAA South Bay Branch Office

1149 W 190th Street, Suite 2022

Gardena, CA 90248-4303

Telephone No. (310) 516-6395

FAX No. (310) 516-8037

E-mail Address DCAA-FAO4421@dcaa.mil

SUBJECT: USC NSF Grant EAR-0318549 Sub-Recipient CY2004 Cost Verification

REFERENCES: DCAA Reference No. 3121-2004J10100029

Relevant Dates: (See Page 4)

CONTRACTOR: University of Southern California

Department of Contracts and Grants

University Park 837 W. Downey Way

Los Angeles, CA 90089-1147

REPORT RELEASE RESTRICTIONS: See Page 5

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CONTENTS:	Subject of Application of Agreed-Upon Procedures	1
	Scope of Application of Agreed-Upon Procedures	1
	Results of Application of Agreed-Upon Procedures	2
	Contractor Organization and Systems	3
	DCAA Personnel and Report Authorization	4
	Report Distribution and Restrictions	5
	Appendix - Subcontractor's Release Statement	6

SUBJECT OF APPLICATION OF AGREED-UPON PROCEDURES

As requested by the Defense Contract Audit Agency – Denver Branch Office (DCAA - DBO) in a memorandum dated August 13, 2005, reference 3121-2004J10100029, and as discussed subsequently with your office, we applied agreed-upon procedures to determine the allowability, allocability and reasonableness of the sub-recipient's direct and indirect costs charged to prime recipient, UNAVCO, Inc.

SCOPE OF APPLICATION OF AGREED-UPON PROCEDURES

We have performed the mutually agreed-upon procedures enumerated below solely to assist you in evaluating University of Southern California--Department of Contracts & Grants (USC)'s 2004 sub-recipient costs under NSF grant EAR-0318549, under prime recipient, University NAVSTAR Consortium (UNAVOC), Inc.

This agreed-upon procedures engagement was performed in accordance with generally accepted government auditing standards. The sufficiency of the procedures is solely the responsibility of the requestor. Consequently DCAA makes no representation regarding the sufficiency of the procedures described below, either for the purpose for which this report has been requested or for any other purpose.

The following agreed-upon procedures were applied:

- Verify the grant's high dollar direct costs to the general ledger and original source documents.
- Verify indirect rates to the university A-122 audits or final rates, and
- Verify indirect rates are calculated correctly.

RESULTS OF APPLICATION OF AGREED-UPON PROCEDURES

This report pertains only to the performance of agreed-upon procedures to USC's 2004 costs for NSF Grant EAR-0323700 under prime recipient UNAVOC. We were not engaged to, and did not perform an examination, the object of which would be the expression of an opinion on the subject matter of this report. Accordingly, we do not express such an opinion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

The application of agreed-upon procedures determined no differences were found between the UNACO's 2004 claimed \$712,174 USC subcontract costs and USC's 2004 incurred and paid UNAVCO subcontract costs as a result of applying the agreed-upon procedures. We verified the grant's high dollar direct costs to the general ledger and original source documents. We verified the use of the indirect rates to the university A-122 audits or final rates. We verified the accuracy of the resulting indirect costs.

We provided and discussed the results of this application of agreed-upon procedures with on September 19, 2005.

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CONTRACTOR ORGANIZATION AND SYSTEMS

1. Organization:

University of Southern California (USC) is a not-for-profit, private educational institution located in Los Angeles, California, which conducts both education and research. Currently, there are approximately 2,257 different projects being undertaken through the University. USC was incorporated in the state of California in the late 1800's. There are approximately 10,900 faculty and staff and 7,900 part-time, temporary and student workers.

Sponsored activities were approximately \$373 million for fiscal year 2004. USC has contracts and grants with many different public agencies, including federal, state, and local governments.

2. Accounting and Estimating Systems:

USC maintains a job cost accounting system under general ledger control. USC is required to comply with Office of Management and Budget (OMB) Circular A-133, which requires an outside accounting firm (PriceWaterhouseCoopers in this case) to review and report on the adequacy of their systems, including accounting, estimating, and billing. PriceWaterhouseCoopers' report for fiscal year 2004 disclosed no instance of noncompliance considered material to the financial statements.

USC has a DS-2 disclosure statement, dated July 1, 1999 and revisions dated March 6, 2003 and July 28, 2003 which have been approved by the Department of Heath and Human Services.

DCAA PERSONNEL

		Telephone No.
Primary report:	contact(s) regarding this agreed upon procedures	
•	Melinda G Lebental, Auditor	(310) 336-7210
	Donald S Gensemer, Supervisory Auditor	(310) 336-7210
Other core	ontact(s) regarding this agreed upon procedures	
report.	Clifford D Cameron, Branch Manager	(310) 516-6395
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	South Bay Branch Office	(310) 516-8037
		E-mail Address
	South Bay Branch Office	DCAA-FAO4421@dcaa.mil

General information on audit matters is available at http://www.dcaa.mil/.

RELEVANT DATES

Request for Evaluation:

DCAA - dated August 12, 2005, received on August 15, 2005.

REPORT AUTHORIZED BY:

/s/ Donald S. Gensemer for Clifford D. Cameron Branch Manager DCAA South Bay Branch Office

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Report No. 4421-2005T17900001

REPORT DISTRIBUTION AND RESTRICTIONS

DISTRIBUTION

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Lakewood, CO 80235-2327

University of Southern California (through DCAA DBO)
Department of Contracts and Grants
University Park
837 W. Downey Way
Los Angeles, CA 90089-1147

jmt@usc.edu

RESTRICTIONS

- Information contained in this report may be proprietary. It is not practical to identify during
 the conduct of the evaluation those elements of the data which are proprietary. Make
 proprietary determinations in the event of an external request for access. Consider the
 restrictions of 18 U.S.C. 1905 before releasing this information to the public.
- Under the provisions of Title 32, Code of Federal Regulations, Part 290.7(b), DCAA will
 refer any Freedom of Information Act requests for reports received to the cognizant
 contracting agency for determination as to releasability and a direct response to the requestor.
- USC does not object to release of this report, at the discretion of the contracting agency, to authorized representatives of UNAVOC, Inc. See the Appendix for a copy of the subcontractor's release statement.
- 4. This report was prepared using procedures agreed upon by the identified requestor. The reported findings do not include an audit opinion. The information contained in this report is intended solely for the use of the identified recipients, and should not be used by them or by others for any purpose other than that for which the procedures were established.

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APPENDIX Report No. 4421-2005T17900001 OF SOUTHERN CALIFORNIA 26 September 2005 In reply refer to: 53-4831-3160 Associate Vice President DCAA University Office of Financial Analysis Post office Box 9295? Los Angeles, CA 90009-2957 Attention: Subject: Proposal entitled, "Support for Existing Western U.S. GPS Networks" Dear The University of Southern California (USC) has no objection to the release audit results to the customer for the above entitled project. It is understood that individual salaries will not be disclosed. If you require any more information, please feel free to contact the undersign at juntaguse edu or by calling (213) 821-1937. Very truly yours, Line Sity of social sector at 1,500 world action a 1,500 world action a 1,500 world action world (CT) to a Ancestin 1. If forms independent (ALC: 2.824 - 517 10x 213 748 367

41 FOR OFFICIAL USE ONLY

Auditee's Response



MEMORANDUM

Date: September 30, 2005

From:

Subject: Response to DCAA Questioned G&A Costs

UNAVCO concurs with the \$1,165 questioned cost for the Facilities Allocation of the G&A pool. This cost is the G&A portion of the \$9,086 questioned cost in the Facilities pool.

The remaining questioned costs, which total \$33,850 were the result of an allocation error in the Solomon system.

During the 2004 financial audit performed by JDS, all project (i.e., job cost) balances were reconciled to the general ledger. This reconciliation was done in total and by each cost category (for example, Labor, Travel, Materials & Supplies, etc.). After all audit adjustments had been made, the project balances were again reconciled to the general ledger. At this point, a manual calculation was done of each Indirect Cost Rate (G&A, Fringe and Common Facilities). The G&A rate was manually calculated as 16.4427662%, which agrees with the DCAA final calculated G&A rate.

2004 Re-Calculation Process

In order to apply the final allocation rates, which included the G&A applied at 16.44%, UNAVCO used the Re-calculation feature of the Solomon Project Allocator. This feature looks at each transaction, reverses the original allocation and creates a new allocation at the new rate.

The Re-calculation feature determines which transactions should be re-calculated based on the transaction date. For the 2004 re-calculation, we used 1/1/04 through 12/31/2004. We adjusted transaction dates where necessary to make sure that all 2004 transactions had transaction dates which fell into this range. Unfortunately, this date range requirement also picked up a 2003 allocation, posted to December 2003, but with a transaction date in January 2004

2003 Allocation Method



2003 was a direct cost year. There were no indirect rates. However, an allocation method was used during 2003 which took transactions from the G&A cost pool (Project 0010) and applied them to the main projects as follows:

55% - Project 0006, Facility

30% - Project 0007, PBO MRE

15% - Project 0009, Existing Networks

This allocation method also increases Grant Receivable and Grant Revenue in the General Ledger to recognize revenue for these charges.

Erroneous Re-calculation of 2003 Transactions

During the 2004 re-calculation, the 2003 allocation method was erroneously run in re-calculation mode using the date ranges of the 2004 calendar year. This allocation batch picked up December 2003 transactions which had transactions dates within 2004. Since the allocation was run in re-calculation mode, this resulted in a <u>reversal</u> of the 2003 Allocation Method (described above). Essentially, costs were <u>taken</u> from projects 0006, 0007 & 0009 and <u>added</u> to project 0010, the G&A indirect cost pool. Grant Receivable and Grant Revenue were lowered.

2004 Re-calculation

All 2004 G&A allocations were correctly recalculated using a rate of 16.44%. The Solomon Rate Tables only allow 4 decimal places.

The rounding balance of the G&A pool should have been a negative amount since 16.44% was used rather than 16.4427662%. However, because of the erroneous allocation of 2003 transactions, a <u>positive</u> balance of \$20,098.50 remained in the G&A pool. This remaining balance was manually re-distributed to all projects based on the MTDC percentages for projects 0006, 0007 and 0009. Grant Receivable and Grant Revenue were increased with this final allocation.

Calculation of Published Final G&A Rate

Since the 16.44% applied G&A rate had not cleared all costs out of the G&A pool, we thought the rate had been calculated incorrectly, so we took another look at the rate calculation. After all remaining balances in the G&A pool were manually allocated to projects, the final G&A rate was recalculated and published in the final rate proposal at 16.8%. The G&A costs used in the numerator for the new calculation now included the G&A costs that had been added in the erroneous allocation. However, the denominator did not include the reduction of the project costs from the erroneous allocation. Since the project direct cost totals had been verified and tied numerous times, and we did not think we had performed any operation during the reallocation that would have affected project direct costs. The denominator was the same MTDC calculated before the 2004 Re-calculation. This resulted in a published G&A rate of 16.8% in the final rate proposal.



Proposed Correction of Inception to Date (ITD) Project and

Indirect

Essentially, we will need to reverse the effects of the erroneous allocation and the subsequent manual clearing of the G&A pool. Since 2004 costs were audited and reported (by JDS) based on the correct numbers (MTDC and 16.44% G&A rate) prior to the reallocation incident, we will make these adjustments in January 2005. The adjustments will be made in three steps:

- Reverse erroneous allocation- We will effectively reverse the bad batch allocation by adding the cost category amounts previously removed back into projects 0006,0007,and 0009. The other side of the balanced entry will be to reduce the indirect costs in those projects.
- Adjust Indirect Costs between projects- After the above erroneous transactions are reversed, we will need to compare for all projects the actual indirect costs with what is calculated using the exact G&A rate of 16.4427662%, and make any adjustments necessary.
- Adjust Grant Revenue and Grant Receivable to match total ITD project expenses.

When the above process is completed, the Project ITD direct and indirect costs should be corrected.