At the request of the Director of NSF we contracted with the Defense Contract Audit Agency (DCAA), Chesapeake Branch Office to perform an audit of costs claimed on Cooperative Agreement No. EAR 0004370, *Exploring the Earth at High Resolution*, and Cooperative Agreement No. EAR 0323310, *Earthscope Facility Office*. The Incorporated Research Institutions for Seismology (IRIS) is a consortium of over 100 US universities that operate science facilities for the acquisition, management, and distribution of seismological data. IRIS programs are used for scholarly research, education, earthquake hazard mitigation, and verification of the Comprehensive Nuclear-Test-Ban Treaty.

The objectives of the audit were to 1) determine the allowability of direct and indirect costs claimed to NSF by IRIS for the cooperative agreements; 2) report any instances of noncompliance with laws, regulations, provisions of the contract or significant weaknesses in internal controls, which impact the ability of IRIS to comply with the requirements in the cooperative agreement; and 3) determine the reasonableness and adequacy of employee compensation and employee severance payments under the NSF cooperative agreements. Attached to this transmittal memorandum is the DCAA Audit Report detailing the results of the audit.

**Background**

We previously furnished your office OIG Audit Report No. OIG-10-1-016 on the results of a review of the ability of IRIS’ accounting system to accurately track, classify, and bill the costs of performing NSF funded work. It is important to consider that IRIS’ accounting system is inadequate in the following areas and may lead to questioned costs in future financial periods if not corrected. The deficiencies previously reported are:

- Inadequate Monitoring of Subrecipients: IRIS does not perform adequate reviews of subrecipient’s financial records. In addition, IRIS does not ensure subrecipients are completing the A-133 audits within nine months of year end, and therefore cannot meet the requirement to review and issue a management decision within six months of the
completed A-133 audit and ensure that the subrecipient takes timely and appropriate corrective actions.

- **Lacking Support for Procurement Records:** IRIS does not maintain procurement records in accordance with 2 CFR 215.45 “Cost and Price Analysis” and 2 CFR 215.46 “Procurement Records”.

- **Labor Accounting Issues:** IRIS’ labor distribution does not account for the total activity for which the employee is compensated and does not separately identify Paid Time Off (PTO), Holiday, or Administrative hours. IRIS’ Employee Handbook, dated October 2008, does not ensure that employees and supervisor sign timesheets after the pay period has ended. IRIS employee timesheets are not in accordance with IRIS’ Employee Handbook and may not support actual hours worked. However, using expanded procedures the DCAA auditors were able to verify that sufficient records currently exist to support the labor costs claimed on the NSF Cooperative Agreements.

- **Inadequate Accounting Manual:** IRIS’ Accounting Manual does not provide a description of IRIS’ indirect pools and bases, or a procedure for accumulating and billing IRIS’ indirect costs. An adequate accounting manual is necessary to provide continuity of operations in the event of accounting personnel turnover.

### Results of the Audit

The DCAA auditors did not question any of the $ costs claimed under NSF Cooperative Agreements EAR-0004370 or $ costs claimed under EAR-0323310 by IRIS for the period July 1, 2001 through June 30, 2007. However, DCAA did not audit costs incurred by subrecipients under EAR-0004370 because NSF OIG had recent experience with the sub-awardees and considers those institutions to be a low audit risk.

### Significant Items of Interest

A total of $42,113 of potentially excessive Employee Severance payments was identified from FY 2002 through FY 2007 in accordance with NSF Director’s request to the NSF OIG for this audit. However, DCAA did not question the costs because the available documentation the auditors reviewed indicates NSF provided prior approval to IRIS to bill the severance costs to the NSF Earthscope Facility Office Cooperative Agreement. The Earthscope Facility Office cooperative agreement was terminated early by agreement of IRIS and NSF. Therefore, reasonable severance payments could be made to terminated employees and billed to NSF as an allowable cost. DCAA reviewed IRIS’s severance policy and determined IRIS allowed terminated employees one week’s pay for every year of employment completed. However, for the terminated NSF Earthscope cooperative agreement, IRIS paid terminated employees a supplementary four weeks pay in addition to their regular IRIS severance policy amount all of which was billed to NSF. The supplementary four weeks of severance payment was previously approved by a NSF Grant Officer.

We are providing a copy of this memorandum to the Division Director, Geosciences (GEO) and the GEO Earthscope Program Director. The responsibility for audit resolution rests with Cost Analysis and Audit Resolution Branch (CAAR). Accordingly, we ask that no action be taken concerning the report without first consulting CAAR at (703) 292-8242.
OIG Oversight of Audit

To fulfill our responsibilities under Generally Accepted Government Auditing Standards, the Office of Inspector General:

- Reviewed DCAA’s approach and planning of the audit;
- Evaluated the qualifications and independence of the auditors;
- Monitored the progress of the audit at key points;
- Coordinated periodic meetings with DCAA and NSF officials as necessary to discuss audit progress, findings and recommendations;
- Reviewed the audit report prepared by DCAA to ensure compliance with Generally Accepted Government Auditing Standards and Office of Management and Budget Circulars; and
- Coordinated issuance of the audit report.

DCAA is responsible for the attached auditor’s report on IRIS and the conclusions expressed in the report. The NSF OIG does not express any opinion on IRIS’ incurred costs, the indirect rate applications, or the conclusions presented in DCAA’s audit report.

We thank you and your staff for the assistance extended to us during the audit. If you have any questions about this report, please contact Ken Stagner at (303) 844-5635 or Jannifer Jenkins at (703) 292-4996.


cc: Mary Santonastasso, Division Director, DIAS
    Robert S. Detrick, Division Director, GEO/EAR
    Gregory J. Anderson, Program Director, Earthscope