

STANDARD FORM 26, JULY 1966  
GENERAL SERVICES ADMINISTRATION  
FED. PROC. REG. (41CFR) 1-16.101

AWARD/CONTRACT

PAGE 1 OF 6

1. CONTRACT (Proc. Inst. Ident.) NO. NRC-04-80-220		2. EFFECTIVE DATE		3. REQUISITION/PURCHASE REQUEST/PROJECT NO. RES-80-220		4. CERTIFIED FOR NATIONAL DEFENSE UNDER BDSA REG. 2 AND/OR DMS REG. 1. RATING	
5. ISSUED BY U. S. Nuclear Regulatory Commission Division of Contracts Washington, DC 20555				6. ADMINISTERED BY (If other than block 5)		7. DELIVERY FOB DESTINATION <input type="checkbox"/> OTHER (See below)	
8. CONTRACTOR NAME AND ADDRESS  GEOLOGICAL SURVEY OF ALABAMA State Oil and Gas Board P. O. Drawer 0 University, Alabama 35486				9. DISCOUNT FOR PROMPT PAYMENT		10. SUBMIT INVOICES (4 copies unless otherwise specified) TO ADDRESS SHOWN IN BLOCK _____	

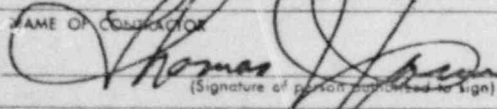
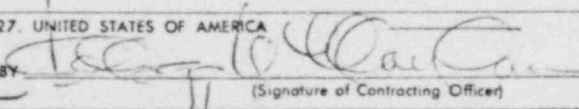
11. SHIP TO/MARK FOR U. S. Nuclear Regulatory Commission Director of Nuclear Regulatory Research Washington, DC 20555		12. PAYMENT WILL BE MADE BY U. S. Nuclear Regulatory Commission Office of the Controller Washington, DC 20555	
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13. THIS PROCUREMENT WAS  ADVERTISED,  NEGOTIATED, PURSUANT TO:  10 U.S.C. 2304 (a)(1)  41 U.S.C. 252 (c)(1)(D)

14. ACCOUNTING AND APPROPRIATION DATA  
B&R No. 60-19-12-01      FIN No. BC674      \$55,457.00

15. ITEM NO.	16. SUPPLIES/SERVICES	17. QUANTITY	18. UNIT	19. UNIT PRICE	20. AMOUNT
	A research study entitled, "SEISMICITY AND EARTHQUAKE HAZARD RESEARCH IN NORTHERN ALABAMA"				

21. TOTAL AMOUNT OF CONTRACT \$  
CONTRACTING OFFICER WILL COMPLETE BLOCK 22 OR 26 AS APPLICABLE

22. <input checked="" type="checkbox"/> CONTRACTOR'S NEGOTIATED AGREEMENT (Contractor is required to sign this document and return 4 copies to issuing office.) Contractor agrees to furnish and deliver all items or perform all the services set forth or otherwise identified above and on any continuation sheets for the consideration stated herein. The rights and obligations of the parties to this contract shall be subject to and governed by the following documents: (a) this award/contract, (b) the solicitation, if any, and (c) such provisions, representations, certifications, and specifications, as are attached or incorporated by reference herein. (Attachments are listed herein.)		26. <input type="checkbox"/> AWARD (Contractor is not required to sign this document.) Your offer on Solicitation Number _____, including the additions or changes made by you which additions or changes are set forth in full above, is hereby accepted as to the items listed above and on any continuation sheets. This award consummates the contract which consists of the following documents: (a) the Government's solicitation and your offer, and (b) this award/contract. No further contractual document is necessary.	
23. NAME OF CONTRACTOR BY  (Signature of person authorized to sign)		27. UNITED STATES OF AMERICA BY  (Signature of Contracting Officer)	
24. NAME AND TITLE OF SIGNER (Type or print) Thomas J. Joiner State Geologist		25. DATE SIGNED 6-6-80	
28. NAME OF CONTRACTING OFFICER (Type or print) Kellogg V. Morton		29. DATE SIGNED 7/16/80	

ARTICLE I - OBJECTIVE

The objective of this contract is to define areas susceptible to possible seismic hazard in northern Alabama, and adjacent areas of Tennessee and Georgia. A seismic network will be established in the northern part of Alabama and southeastern Tennessee (seismic systems in northwest Georgia are already operating under other sponsors) in the Southern Appalachian Seismic Zone to, monitor and locate earthquakes above Richter Magnitude 1.0, determine the coastal structure of the region, and catalog all historical earthquakes for the region. A regional network of up to fifteen seismograph stations in northern Alabama and adjacent areas - - 30 to 50 km spacing will be installed. The total effort proposed for this contract is intended to span a three (3) year period.

ARTICLE II - STATEMENT OF WORK

1. Scope of Technical Work The Contractor shall furnish all personnel, materials, equipment, facilities, and services (except as may be furnished by the Government) necessary to perform, and shall therewith perform, the following technical scope of work:

The Contractor shall perform the work in accordance with its research proposal entitled "Seismic and Earthquake Hazard Research In Northern Alabama" which proposal is incorporated by reference and made a part hereof. Specifically, the Contractor shall accomplish the following:

- a. Install and operate in the first year the six stations in northern Alabama.
  - b. Provide monitoring capability to permit the location of magnitude 1.0 or greater, to any accuracy of  $\pm 1$  km. and detection threshold of Mag. 0.0.
  - c. Translate information on seismicity into the evaluation of seismic hazard through the consideration of historic seismicity, geologic structures, and regional tectonics.
2. Emphasis. The Contractor shall comply promptly with any Contracting Officer requests relating to the emphasis or relative emphasis to be placed on various aspects of the said work, or such matters pertaining to said work as the requests are of concern to the Commission
  3. Standards of Performance The Contractor shall perform said work by utilization of its best efforts and know-how and its performance shall be accomplished in a workmanlike manner by qualified, careful, and efficient personnel; also the Contractor's said work shall, as a minimum, accord good pertinent scientific and technical procedures, practices, and standards.

4. Technical Reports The Contractor shall prepare and submit to the Commission and/or distribute, as directed by the Contracting Officer, quantity and form (including detail), and at such times, as may be specified by the Contracting Officer, Progress Reports.

The reporting requirements at this time include:

<u>Report</u>	<u>Due</u>	<u>Distribution</u>
Quarterly Progress Report	10 days after close of calendar quarter,	15 copies to Office of Nuclear Regulatory Research, Division of Reactor Safety Research
Annual Report	60 days after end of each year	*
Special Reports	Annually, Upon completion of identified tasks or subtasks,	*

\* Unless otherwise directed, all reports are to be submitted in six (6) copies with a reproducible master, to the Office of Nuclear Regulatory Research, Division of Reactor Safety Research.

5. Incidental Work In addition to performing the work described in paragraphs 1. and 4. above, the Contractor shall perform the incidental contract activities provided for under other articles of this contract and in connection with the close-out of this contract upon termination, expiration, and/or completion of the work described in paragraph 1., above, the Contractor shall complete the work described in paragraph 4. above, plus said activities covered by articles and, subject to the approval of the Contracting Officer, shall perform such other close-out as may be appropriate.
6. Subcontracts. The Contractor shall, when directed by the Commission, and may, but only when authorized by the Contracting Officer, as set forth in the General Provisions enter into subcontracts for the performance of any part of the work under this Article.

### ARTICLE III - PERIOD OF PERFORMANCE

The period of performance of the work described in paragraph 1 of Article II hereof shall commence on May 15, 1980, and shall continue up to and including completion thereof, estimated to occur on or about May 15, 1981, provided, however, that said period of performance may be extended for additional periods by written agreement of the parties.



ARTICLE IV - TOTAL ESTIMATED COST AND OBLIGATION OF FUNDS

1. Total Estimated Cost The total estimated cost to the Government for the performance of this contract is \$55,457.00.
2. Obligation of Funds The amount presently obligated by the Commission with respect to this contract is \$55,457.00. Such amount may be increased unilaterally by the Commission by written notice to the Contractor and may be increased or decreased by written agreement of the parties (whether or not by formal modification of this contract).

ARTICLE V - ALLOWABLE COST AND PAYMENT

The allowable cost of performing the work under this contract shall be the costs and expenses (less applicable income and other credits) that are actually chargeable either as directly incident or as allocable through appropriate distribution or apportionment to the performance of the contract work in accordance with Clause 5 of the General Provisions entitled, "Allowable Cost, Fee, and Payment" and as determined to be allowable in accordance with Federal Procurement Regulation 1-15.7.

ARTICLE VI - WORK FOR OTHERS

Notwithstanding any other provision of this contract, during the term of this contract, the Contractor agrees to forego entering into consulting or other contractual arrangements with any firm or organization, the result of which may give rise to an actual or apparent conflict of interest with respect to the work being performed under this contract. The Contractor shall insure that all employees who are employed full time under this contract abide by the provision of this clause. If the Contractor believes with respect to itself or any such employee that any proposed consultant or other contractual arrangement with any firm or organization may involve a possible conflict of interest, the Contractor shall obtain the written approval of the Contracting Officer prior to execution of such contractual arrangement.

ARTICLE VII - STOP WORK ORDER

The Contracting Officer may, at any time, by written order to the Contractor, require the Contractor to stop all, or any part, of the work called for by this contract for a period of ninety (90) days after the order is delivered to the Contractor, and for any further period to which the parties may agree. Any such order shall be specifically identified as a Stop Work Order issued pursuant to this clause. Upon receipt of such an order, the Contractor shall forthwith comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Within a period of ninety (90) days after a Stop Work Order is delivered to the Contractor, or within any extension of that period to which the parties shall have agreed, the Contracting Officer shall either:

- a. Cancel the Stop Work Order, or
- b. Terminate the work covered by such order as provided in the "Default" or the "Termination for Convenience" clause of this contract.

If a Stop Work Order issued under this clause is cancelled or the period of the order or any extension thereof expires, the Contractor shall resume work. An equitable adjustment shall be made in the delivery schedule or contract price, or both, and the contract shall be modified in writing, accordingly, if:

- c. The Stop Work Order results in an increase in the time required for or in the Contractor's cost properly allocable to, the performance of any part of this contract; and
- d. The Contractor asserts a claim for such adjustment within thirty (30) days after the end of the period of work stoppage provided, that if the Contracting Officer decides the facts justify such action, he may receive and act upon any such claim asserted at any time prior to final payment under the contract.

If a Stop Work Order is not cancelled and work covered by such order is terminated for the convenience of the Government, the reasonable costs resulting from the Stop Work Order shall be allowed in arriving at the termination settlement.

If a Stop Work Order is not cancelled and work covered by such order is terminated for default, the reasonable costs resulting from the Stop Work Order shall be allowed by equitable adjustment or otherwise.

ARTICLE VIII - CONTRACTING OFFICER'S AUTHORIZED REPRESENTATIVE (COAR)  
PROJECT OFFICER

The following authorized representative will represent the Government for the purpose of this contract:

Andrew Murphy Reactor Safety Research Division, Office of  
Nuclear Regulatory Research

The authorized representative is responsible for: (1) monitoring the Contractor's technical progress, including the surveillance and assessment of performance and recommending to the Contracting Officer changes in requirements; (2) interpreting the statement of work; (3) performing technical evaluation as required; (4) performing technical inspections and acceptances required by this contract; and (5) assisting the Contractor in the resolution of technical problems encountered during performance. Within the purview of this authority, the representative is authorized to approve payment vouchers for supplies/services required under the contract. The Contracting Officer is responsible for directing or negotiating any changes in terms, conditions, or amount cited in the contract.

For guidance from the authorized representative to the Contractor to be valid, it must: (1) be consistent with the description of work set forth in this contract; (2) not constitute new assignment of work or change to the expressed terms, conditions, or specifications incorporated in to this contract; (3) not constitute a basis for an extension to the period of performance or contract delivery schedule; (4) not constitute a basis for any increase in the contract price.

If the Contractor receives guidance from the COAR which the Contractor feels is not valid under the criteria cited above, the Contractor shall immediately notify the COAR. If the COAR and the Contractor are not able to resolve the question within five (5) days, the Contractor shall notify the Contracting Officer.

#### ARTICLE IX - KEY PERSONNEL

The key personnel referred to in the aforementioned General Provisions is Jack T. Kidd.

The General Provisions of this contract consist of the "Cost Type Research and Development Contracts With Commercial Organizations," dated 2/6/80, attached hereto, and by this reference made a part hereof except as follows:

1. Clause 5.1-1, entitled "Limitation of Costs" is deleted in its entirety.
2. In Clause 5.2, entitled "Allowable Cost, Fixed Fee, and Payment" the following changes are effected:
  - a. In subparagraph (a)(1)(i), delete "Subpart 1.15.2" and "41 CFR 1-15.2" and substitute in lieu thereof "Subpart 1.15.7" and "41 CFR 1-15.7," respectively.
  - b. Delete any reference to "fixed fee."
3. Clause 23, entitled "Nuclear Hazards Indemnity - Product Liability" is deleted in its entirety.
4. Clause 37, entitled "Cost Accounting Standards" is deleted in its entirety.
5. Clause 38, entitled "Administration of Cost Accounting Standards" is deleted in its entirety.

NOTE: AVAILABILITY OF TEXT OF CLAUSES - The complete text of clauses that are incorporated by reference is available, for a nominal fee, in the publication entitled "Code of Federal Regulations - 41 CFR 1-1.000, Chapters 1 to 2, Federal Procurement Regulations (Chapter 1)" which may be obtained from the Superintendent of Documents, U. S. Government Printing Office, Washington, D.C. 20402. Copies of the complete text of specific clauses are available from the Nuclear Regulatory Commission, Division of Contracts, Washington, D.C. 20555 and will be furnished upon request.