

# REPORT DOCUMENTATION PAGE

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ATTENUATION IN THE WESTERN GREAT BASIN

5. FUNDING NUMBERS  
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AO 4397

6. AUTHOR(S)  
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7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)  
Universtiy of Nevada  
Reno, NV 89557

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Progress during the reporting period: (1) Brought SRO data for events recorded in Hot Creek Valley from Scripp's Prime to Seismology Laboratory. Because of difficulties in reading prime tape format on the PDP 11/70, it was decided to analysis data on the prime, (2) Reanalyzed regional data across NTS.

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Seismological Laboratory

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1 February 1984

**AFOSR - WR - 89 - 1447**

Quarterly Research and Development Status Report

No. 4

1 July 1983 - 30 September 1983

ARPA Order: 4397  
Program Code: 3D60  
Name of Grantee: University of Nevada - Reno  
Grant Expiration Date: 30 September 1984  
Amount of Grant: \$203,692  
Grant Number: 49620-83-C-0012  
Principal Investigators: Keith F. Priestley  
Alan S. Ryall  
Program Manager: Keith F. Priestley  
Short Title of Work: ATTENUATION IN THE WESTERN  
GREAT BASIN

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## 1. Research Program and Plan

- (a) Operate three wideband, digital seismic stations in the western Great Basin as a dispersed network.
- (b) Use data from these stations to examine variations in  $m_b$  and  $t^*$  from area to area in the western Great Basin.
- (c) Investigate ways in which high-quality digital stations may be used to improve seismic verification at regional distance ranges.
- (d) Study variations in the attenuation operator for multiple  $S_cS$  recorded at western U.S. stations.
- (e) Study  $m_b/M_s$  relationships for Mammoth earthquake sequence.

## 2. Status of Project

### (a) Progress During the Reporting Period:

(1) Brought SRO data for events recorded in Hot Creek Valley from Scripp's Prime to Seismology Laboratory - because of difficulties in reading Prime tape format on the PDP 11/70, it was decided to analysis data on the Prime.

(2) Reanalyzed regional data across NTS.

(b) Major Equipment Purchased During Reporting Period: None.

(c) Change in Key Personnel During the Reporting Period: None.

(d) Trips, Meetings, Papers Given During the Reporting Period:

(1) Priestley's travel:

(a) to LaJolla, Calif. to copy SRO tapes.

(b) to Switzerland and Germany to attend CCSS and IUGG meetings; presented paper on southern Nevada data.

(2) Ryall's travel:

(a) 7/27-28 DARPA panel meeting to review TTBT procedures + research. Washington, D.C.

(e) Problems Encountered: Reading Prime data format.

(f) No deviation in the planned effort to achieve the objective of the contract is anticipated.

(g) Fiscal Status:

1. Amount currently provided in contract: \$203,892

2. Expenditures and commitments to date: \$34,883
3. Estimated funds required to complete this work: \$203,692
4. Estimated date of completion of work: 30 September 1984