



AD A 052833

**SPECIAL DATA COLLECTION SYSTEM EVENT REPORT
Kansu Province, China, 17 October 1976**

Michael S. Dawkins

Alexandria Laboratories

Teledyne Geotech, 314 Montgomery Street, Alexandria, Virginia 22314

February 1978

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED.

Sponsored by

The Defense Advanced Research Projects Agency (DARPA)

ARPA Order No. 2551

Monitored by

AFTAC/VSC

312 Montgomery Street, Alexandria, Virginia 22314

**DDC
RECEIVED
APR 19 1978
D**

Handwritten initials

**AD No. [scribble]
DDC FILE COPY**

Disclaimer: Neither the Defense Advanced Research Projects Agency nor the Air Force Technical Applications Center will be responsible for information contained herein which has been supplied by other organizations or contractors, and this document is subject to later revision as may be necessary. The views and conclusions presented are those of the authors and should not be interpreted as necessarily representing the official policies, either expressed or implied, of the Defense Advanced Research Projects Agency, the Air Force Technical Applications Center, or the US Government.

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER 14 SDCS-ER-76-117	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER 9
4. TITLE (and Subtitle) 6 SPECIAL DATA COLLECTION SYSTEM (SDCS) <i>Event Report,</i> Kansu Province, China, 17 October 1976,		5. TYPE OF REPORT & PERIOD COVERED Technical rept.
7. AUTHOR(s) 10 Michael S./Dawkins		6. PERFORMING ORG. REPORT NUMBER
9. PERFORMING ORGANIZATION NAME AND ADDRESS Teledyne Geotech 314 Montgomery Street Alexandria, Virginia 22314		8. CONTRACT OR GRANT NUMBER(s) 15 E08606-78-C-0007 VARPA Order = 2551
11. CONTROLLING OFFICE NAME AND ADDRESS Defense Advanced Research Projects Agency Nuclear Monitoring Research Office 1400 Wilson Blvd., Arlington, Virginia 22209		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS VT/8709
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) VELA Seismological Center 312 Montgomery Street Alexandria, Virginia 22314 12 7p.		12. REPORT DATE 11 21 February 1978
		13. NUMBER OF PAGES 6
		15. SECURITY CLASS. (of this report)
16. DISTRIBUTION STATEMENT (of this Report) APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED.		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number)		

405601

LB

SDCS Event Report No. 117

Kansu Province, China, 17 October 1976

This event report contains seismic data from the Special Data Collection System (SDCS), and other sources for the above event. Published epicenter information from seismic observations is:

	"P" Arrival	Origin Time	Lat.	Long.	m_b	M_s
NORSAR	No published bulletin					
LASA	05:13:06.6	unpublished	46.6N	092.6E	5.5	N/A
Hagfors	05:08:38	04:59:35	42N	095E	5.0	N/A

Beginning with this report, a format change goes into effect. It is felt that since these reports are not accomplished for the same reasons as are bulletins, and that the events are already accurately located in the majority of instances, that hypocenter locations using SDCS stations are redundant and time wasting. Likewise, amplitude and period measurements will not be made. A set of magnification response curves for the various station and instrument types will be published along with a copy of Gutenberg and Richter's "B" Factor tables so that the readers may determine period corrected amplitude and m_b if they desire. Long period magnitude (M_s) is determined according to the following formula -- $M_s = \log_{10}(A/T) + .66(\log_{10}\Delta^0)$.

In place of the "HYPOCENTER DETERMINATION" you will find a prediction arrival table based on published epicenter information. The times are determined using 68 Herrin travel times.

Also beginning with this report, NORSAR has ceased the publication of a bulletin. These reports will include their data upon resumption of a published bulletin.

All SDCS stations were operational during this time period, although only one, RK-ON, recorded a positive signal for the event. Horizontal channels were rotated.

Long-period was negative at all SDCS stations.

Only NORSAR short-period waveform data could be recovered from the SDAC/VELA detection processor.

Scaling factors on plots are millimicrons at 1 Hz (not corrected for instrument response)

ACCESSION NO.	
NTIS	White Section <input checked="" type="checkbox"/>
DDO	Buff Section <input type="checkbox"/>
UNANNOUNCED	<input type="checkbox"/>
JUSTIFICATION.....	
BY.....	
DISTRIBUTION/AVAILABILITY CODES	
Dist.	AVAIL. and/or SPECIAL
A	

DDC
 RECEIVED
 APR 19 1978
 RECEIVED
 D

STATION DESCRIPTION

SITE CODE	LOCATION	SITE COORDINATES DEG MN SECS	ELEVATION METERS	INSTRUMENTATION	
				SHORT-PERIOD	LONG-PERIOD
HN-ME	Houlton, Maine	46 09 43.0 N 067 59 09.0 W	213	KS36000	KS36000
RK-ON	Red Lake, Ontario	50 50 20.0 N 093 40 20.0 W	366	18300	SL210 V SL220 H
OB2NV	Nevada Test Site	37 13 31.0 N 116 03 28.0 W		18300	N/A
NT-NV	Nevada Test Site	31 16 33.0 N 116 25 06.0 W		18300	N/A
NT2NV	Nevada Test Site	37 15 16.0 N 116 18 13.0 W		18300	N/A
LASA	Billings, Montana	46 41 19.0 N 106 13 20.0 W	744	HS10	7505A V 8700C H
NORSAR	Kjeller, Norway	60 49 25.4 N 010 49 56.5 E	379	HS10	7505A V 8700C H

PREDA -- TRAVEL TIME PREDICTIONS --

17OCT INPUT FOR EVENT 17 OCT 76
 05:00:00.0 42.000N 95.000E 0KM.

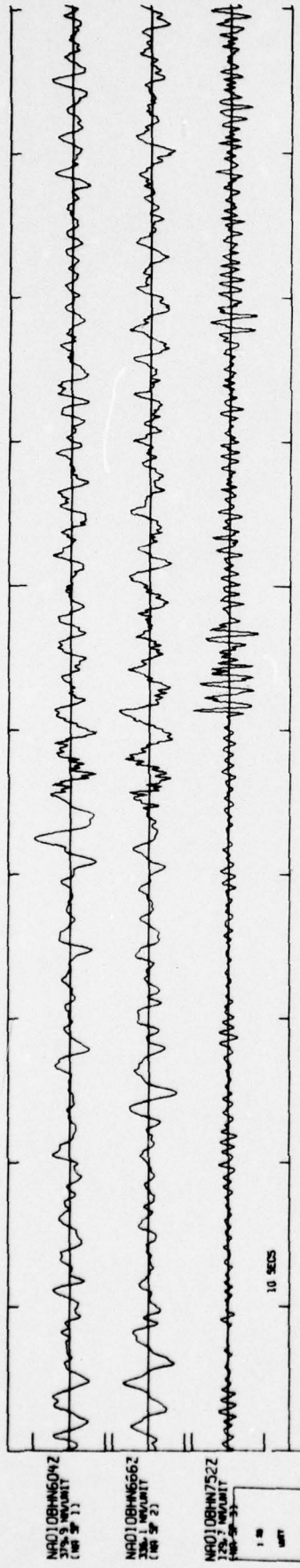
STA.		TIME	SURF(CKM.)		DIST		AZI	
			TRAV.TIME	DEG.	KM.	EVT-STA	STA-EVT	
HFS	P	05 08 60.0	8:60.0	50.69	5636.2422	320.250	72.233	
NAO	P	05 09 08.4	9:08.4	51.81	5761.2187	321.670	70.635	
RK-ON	P	05 12 47.1	12:47.1	87.23	9699.6602	5.492	353.539	
LAO	P	05 12 59.0	12:59.0	89.70	9974.2812	14.430	344.346	
HN-ME	P	05 13 04.7	13:04.7	90.92	10110.0703	348.264	12.599	
NT-NV	P	05 13 28.8	13:28.8	96.05	10680.0547	24.718	337.000	
NT2NV	P	05 13 29.1	13:29.1	96.11	10686.9375	24.628	337.090	
OB3NV	P	05 13 29.5	13:29.5	96.20	10697.0469	24.465	337.247	
OB2NV	P	05 13 29.5	13:29.5	96.21	10697.6992	24.471	337.244	

67 HERRIN TRAVEL TIME TABLES

```

SURF
1 . 6
2 . 0
0 . 0 0
. . . . .
0 . 0 0
C . 0
0 . 0
    
```

95 PERCENT CONFIDENCE ON DEPTH CHISQUARE WITH DISTANCE VARIANCE = ± 0.000



NORSAR SHORT PERIOD BEAMS

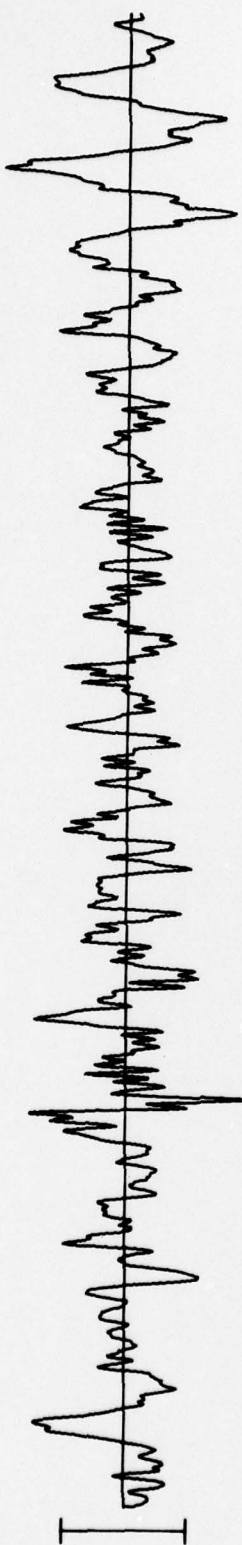
1976
TIME 5.0 SECUMT 281/546.0.0

RK-ON 17 OCT 76

05:12:35.0



SPZ
25.37 MU



SPR
13.25 MU



SPT
9.63 MU



SPZLO
27.36 MU

10 SEC