

AD A O 48959

14 SDCS-ER-76-111

*Q*

6 SPECIAL DATA COLLECTION SYSTEM EVENT REPORT,  
Eastern Kazakh, SSR, 23 July 1976.

AD No. \_\_\_\_\_  
DDC FILE COPY

9 Technical rept.,

10 M. S./Dawkins & M. D./Gillispie  
Alexandria Laboratories

Teledyne Geotech, 314 Montgomery Street, Alexandria, Virginia 22314

11 Nov 1977

12 10 p.

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED.

Sponsored by

The Defense Advanced Research Projects Agency (DARPA)

15 F 08606-78-C-0007, DARPA Order 2551

DDC  
JAN 23 1978  
F

Monitored by  
AFTAC/VSC

312 Montgomery Street, Alexandria, Virginia 22314

405 601

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER SDCS-ER-76-111 ✓	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) SPECIAL DATA COLLECTION SYSTEM (SDCS) Eastern Kazakh, SSR, 23 July 1976	5. TYPE OF REPORT & PERIOD COVERED Technical	
	6. PERFORMING ORG REPORT NUMBER	
7. AUTHOR(s) M. S. Dawkins M. D. Gillispie	8. CONTRACT OR GRANT NUMBER(s) F08606-78-C-0007 ✓	
	9. PERFORMING ORGANIZATION NAME AND ADDRESS Teledyne Geotech ✓ 314 Montgomery Street Alexandria, Virginia 22314	
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	
	12. REPORT DATE 23 Nov 77	
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) VELA Seismological Center 312 Montgomery Street Alexandria, Virginia 22314	13. NUMBER OF PAGES 9	
	15. SECURITY CLASS. (of this report) Unclassified	
16. DISTRIBUTION STATEMENT (of this Report)  APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED.		
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)		

DDC  
RECEIVED  
JAN 23 1978  
F

SDCS Event Report No. 111

Eastern Kazakh SSR, 23 July 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 provided.

	"P" Arrival	Origin Time	Latitude	Longitude	$m_b$	$M_s$
NORSAR	02:40:18.9	02:32:53.0	49.1N	079.6E	4.9	N/A
Hagfors	02:32:56	02:40:09.1	50N	079E	5.4	N/A

Using SDCS stations, LASA and NORSAR, the epicenter location and magnitudes become: Origin time -- 02:33:01.2;  $\uparrow$  50.1N,  $\uparrow$  77.7E;  $\uparrow$  ~~4.8~~  $\uparrow$  N/A

All SDCS stations were operational during this period.

Short-period signals associated with this event were recorded at CPSO, FN-WV, RK-ON, WH2YK, LASA, and NORSAR. HN-ME was negative. Data from WH2YK was retrieved from the analog back-up system due to the digital system being down at the time. Data from the remaining three SDCS stations were retrieved from the primary, digital system. Information for LASA short-period is reported from their "LASA Data Center Teleseismic Report"; NORSAR short-period data are from their bulletin. Horizontal channels at all SDCS stations were rotated.

Long-period was negative.

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

A

5	Write Section	<input checked="" type="checkbox"/>
10	B.f.f Section	<input type="checkbox"/>
ANNOUNCED		<input type="checkbox"/>
JUSTIFICATION		
BY		
DISTRIBUTION/AVAILABILITY CODES		
Dist. A		of SPECIAL

A

STATION DESCRIPTION

SITE CODE	LOCATION	SITE COORDINATES DEG MN SECS	ELEVATION METERS	INSTRUMENTATION	
				SHORT-PERIOD	LONG-PERIOD
CPSO	McMinnville, Tennessee	35 35 41.4 N 085 34 13.5 W	574	6480 V 7515 H	SL210 V SL220 H
FN-WV	Franklin, West Virginia	38 32 58.0 N 079 30 47.0 W	910	KS36000	KS36000
LASA	Billings, Montana	46 41 19.0 N 106 13 20.0 W	744	HS10	7505A V 8700C H
HN-ME	Houlton, Maine	46 09 43.0 N 067 59 09.0 W	213	KS36000	KS36000
NORSAR	Kjeller, Norway	60 49 25.4 N 010 49 56.5 E	379	HS10	7505A V 8700C H
RK-ON	Red Lake, Ontario	50 50 20.0 N 093 40 20.0 W	366	18300	SL210 V SL220 H
WH2YK	White Horse, Yukon	60 41 41.0 N 134 58 02.0 W	853	18300	SL210 V SL220 H

-- HYPO --

23JUL INPUT FOR EVENT 23 JUL 76  
02:33:00.0 50.000N 79.000E 0KM.

STA.	ARRIVAL	RESIDUALS		DIST.	AZ.
		CALC	REST	REST	REST
WH2YK	02 43 51.2	-0.2	-0.1	66.5	16.8
FN-WV	02 45 59.7	0.3	0.3	89.5	342.4
CPC	02 46 17.1	-0.6	-0.6	93.5	346.5
RK-CN	02 45 06.7	-0.2	-0.3	79.2	354.5
LAC	02 45 30.8	0.7	0.7	83.6	2.8
NAO	02 40 18.9	0.0	0.0	37.9	313.1

67 HERRIN TRAVEL TIME TABLES

OPIGIN	LAT.	LONG.	DEPTH (KM)	SDV	IT	STA
02:33:09.0	50.128N	77.694E	45. CALC	0.5	8	6
02:33:01.2	49.864N	77.800E	0. REST	0.5	3	6

CALC			REST		
3	.	2	3	.	2
1	.	0	1	.	0
0	0.	0	0	0.	0
0	.	.	0	.	.
0	0.	0	0	0.	0
0	.	0	0	.	0
0	0.	0	0	0.	0

CHI2 COVERAGE ELLIPSE; 95 PER CENT CONF..LEVEL, SDV= 0.93  
MAJOR 166.4KM. MINOR 41.8KM. AZ= 180 AREA= 21830 SQ.KM. REST

DATA SUMMARY

23 JUL INPUT FOR EVENT 23 JUL 76  
 02:33:00.0 50.000N 79.000E 0KM.

STA.	PHASE	ARRIVAL TIME	INST	PER	A/T	MAGNITUDE		DIE	DIST
						MB	MS		
NAO	EP	02 40 18.9	AB	0.6	38.	4.78			37.9
WH2YK	EP	02 43 51.2	SPZ	0.8	25.	5.10			66.5
RK-ON	EP	02 45 06.7	SPZ	0.6	16.	4.68			79.2
LAO	EP	02 45 30.8	SAB	0.9	9999.				
FN-WV	EP	02 45 59.7	SPZ	0.7	7.	4.54			89.5
CPC	EP	02 46 17.1	SPZ	0.7	11.	4.89			93.5

ORIGIN	LAT.	LONG.	DEPTH (KM)	MAG	SDV	STA
02:33:09.0	50.128N	77.694E	45. CALC	4.77	0.20	5
02:33:01.2	49.864N	77.800E	0. REST	4.80	0.21	5

WH2YK 23 JUL 1976 02:43:51.2

SPZ  
17.22 MU



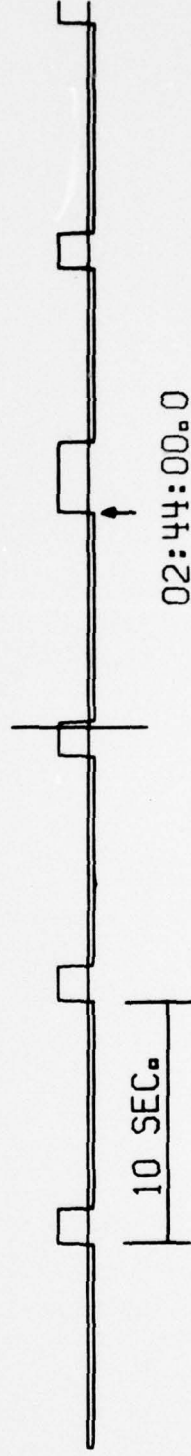
SPR  
7.71 MU



SPT  
9.40 MU



TIME



RK-ON 23 JUL 76

02:45:06.7

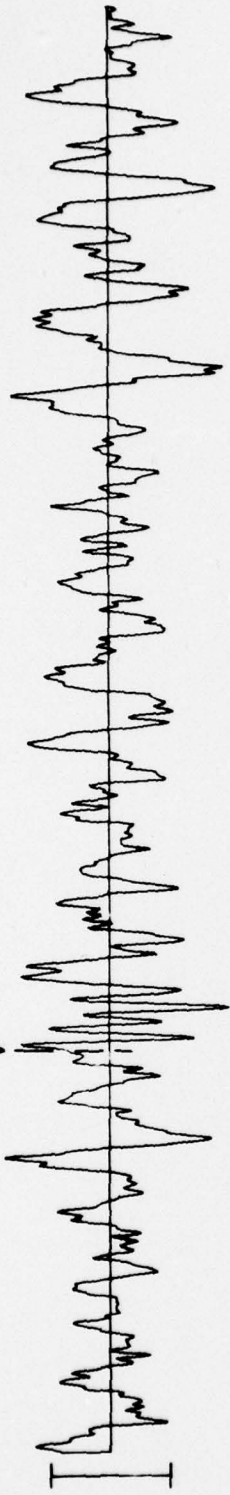


10 SEC

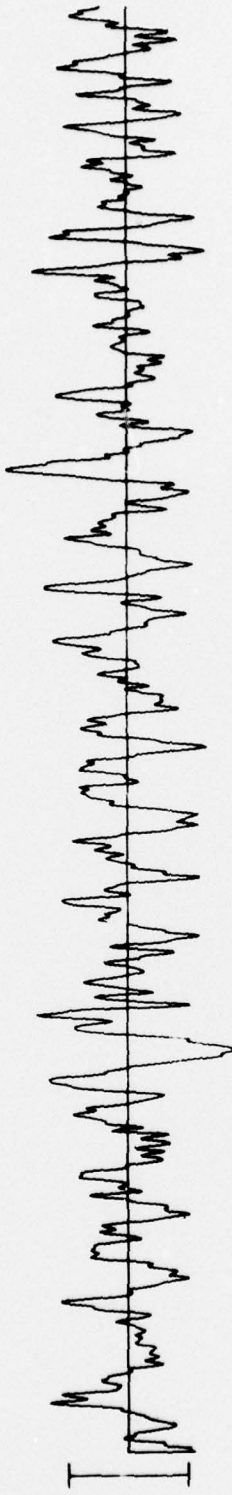


FN-WV 23 JUL 76  
02:45:59.7

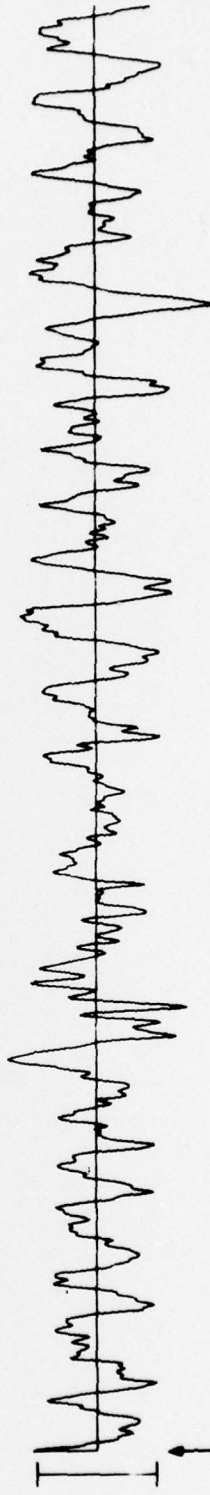
SPZ  
6.10 MU



SPR  
5.22 MU



SPT  
7.17 MU



10 SEC.

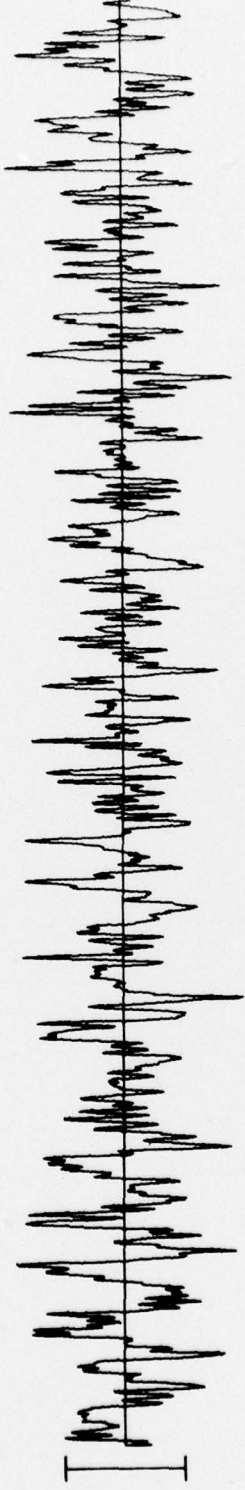
02:43:43.0

CPSO 23 JUL 76

02:46:17.1



SPZ  
6.12 MU



SPR  
5.04 MU



SPT  
4.44 MU

10 SEC

02:46:01.0