

University of Colorado
Seismological Bulletin

12/9/65 - 5/17/66

The seismograph station at the University of Colorado at Boulder (Lat, 40.008° N; Long, 105.271° W; Height, 1654 m; symbol BOL), which had been inactive since 1959, was recommissioned in December 1965, primarily for local earthquake studies. Operation began on December 9, 1965 with three components of Lehner-Griffith seismographs ($T_0=1.5$ s, $T_g=0.5$ s, peak magnification = 100,000) loaned by the U. S. Geological Survey. This bulletin covers the period December 9, 1965 to May 17, 1966.

The bulletin was prepared using a computer program originally written by E.E. Berg of the University of Wisconsin and adapted for the IBM 7044 computer of the University of Colorado. Hypocentral coordinates and time of origin are taken from the Coast and Geodetic Survey's provisional cards and the theoretical times of arrival of observed phases computed from the Jeffreys-Bullen seismological tables. The information given for each phase is: phase name; phase arrival time; component; period of first oscillation if recorded; correction to clock time; ellipticity correction and residual against theoretical arrival time (observed time - theoretical). Velocities for surface wave phases are computed in place of residuals. The program does not handle the near earthquake phases P^* , P_g , S^* and S_g which are processed as P or S respectively. Nor can it process certain phases, notably pS, sP, pPKP, pPP and PcS; any phase with a name which is not recognized by the computer is processed as a P phase if it falls within the range of epicentral distances for which J-B tables for P exist. Most of the apparently large residuals arise from this cause. A more complete description of the computer program may be found in the University of Wisconsin's seismological bulletins. LPBP represents pP and -0.0 appears where no value of a number is specified. Time corrections are applied manually as the records are read, so the computed time corrections are always equal to 0.0.

We are greatly indebted to J. Healy (U. S. Geological Survey), M. Major (Colorado School of Mines) and E. E. Berg (University of Wisconsin).

J. C. Harrison
G. M. Lundquist

MAR 7 1967

12 9 65 6 7 47.7 17.3N 100.0W 54.KM 6.0 DELTA = 23.1
AZM FROM EPIC= 349.6 GUERRERO, MEXICO

IP 6 12 50.4 SPZ -0.0 0.0 0.1 0.9
ELR 6 20 8.0 SPZ 3.5 0.0 3.5KM/SEC

12 9 65 13 12 55.7 18.1S 178.1W 653.KM 5.6 DELTA = 89.0
AZM FROM EPIC= 47.2 FIJI ISLANDS REGION

IP 13 24 44.6 SPZ 1.7 0.0 0.1 0.4

12 13 65 3 44 46.6 5.7S 133.8E 15.KM 5.5 DELTA = 117.1

12 14 65 14 21 5.9 14.5N 89.7W 273.KM 4.9 DELTA = 28.8
AZM FROM EPIC= 334.7 GUATEMALA

IP 14 26 41.0 SPZ 1.0 0.0 0.1 -0.4

12 14 65 NO EPICENTER DATA

DERBY EARTHQUAKE GOL MAG 1.7

IS 21 47 49.6 SPNS -0.0 0.0

12 15 65 NO EPICENTER DATA

DERBY EARTHQUAKE GOL MAG 1.5

IS 6 18 47.0 SPNS -0.0 0.0

12 15 65 NO EPICENTER DATA

DERBY EARTHQUAKE GOL MAG 1.6

IS 8 42 25.0 SPNS -0.0 0.0

12 15 65 NO EPICENTER DATA

DERBY EARTHQUAKE GOL MAG 1.4

IS 10 56 44.2 SPNS -0.0 0.0

12 16 65 19 15 0.0 37.1N 116.0W 0.KM-0.0 DELTA = 8.9
AZM FROM EPIC= 67.7 NEVADA TEST SITE

IP 19 17 13.4 SPZ -0.0 0.0 -0.0 0.7
EP 19 17 21.4 SPZ -0.0 0.0 -0.0 8.7
E 19 17 49.4 SPZ -0.0 0.0

12 18 65 NO EPICENTER DATA

DERBY EARTHQUAKE GOL MAG 1.6

ES 7 38 41.4 SPNS -0.0 0.0

12 18 65 8 30 46.3 44.8N 150.1E 33.KM 5.6 DELTA = 71.8
AZM FROM EPIC= 51.5 KURILE ISLANDS

EP 8 42 8.2 SPZ -0.0 0.0 -0.2 0.8

12 21 65 8 41 0.1 16.8N 98.1W 47.KM 5.2 DELTA = 24.0
AZM FROM EPIC= 346.3 GUERRERO, MEXICO

IP 8 46 12.8 SPZ 1.4 0.0 0.1 1.9
ILPBP 8 46 22.2 SPZ 2.0 0.0 -2.5

12 21 65 12 25 44.2 6.9N 72.9W 185.KM 4.9 DELTA = 43.9
AZM FROM EPIC= 323.6 NORTHERN COLUMBIA

IP 12 33 35.4 SPZ 0.6 0.0 0.2 1.2

12 22 65 19 41 23.1 58.4N 153.1W 51.KM 6.5 DELTA = 35.3
AZM FROM EPIC= 100.1 KODIAK ISLANDS REGION

IP 19 48 16.0 SPZ 2.0 0.0 -0.3 1.0
ILPBP 19 48 29.6 SPZ 2.0 0.0 0.3

12 23 65 20 47 35.5 60.6N 140.7W 11.KM 5.8 DELTA = 30.0
AZM FROM EPIC= 117.2 SOUTHEASTERN ALASKA

IP 20 53 47.4 SPZ 2.5 0.0 999.0 0.8
ELR 21 3 26.0 SPZ -0.0 0.0 3.5KM/SEC

12 24 65 10 5 4.6 42.8N 110.7W 33.KM 3.9 DELTA = 4.9
AZM FROM EPIC= 122.5 WYOMING

E(P) 10 6 17.9 SPZ -0.0 0.0 -0.0 -0.6
IP 10 6 32.3 SPZ 0.6 0.0 -0.0 13.8
ES 10 7 33.4 SPNS -0.0 0.0 -0.0 18.1
ES 10 7 35.3 SPNS -0.0 0.0 -0.0 20.0
ES 10 7 37.8 SPZ -0.0 0.0 -0.0 22.5
ES 10 7 39.4 SPNS -0.0 0.0 -0.0 24.1
ES 10 7 55.5 SPNS -0.0 0.0 -0.0 40.2

A MULTITUDE OF NEAR EARTHQUAKE PHASES

12 25 65 2 57 58.5 18.1S 179.1W 626.KM 5.6 DELTA = 89.7
AZM FROM EPIC= 47.5 FIJI ISLANDS REGION

IP 3 9 53.5 SPZ 1.5 0.0 0.1 1.0
ELPBP 3 12 7.3 SPZ 3.5 0.0 -0.5
EPP 3 13 36.0 SPZ 3.0 0.0 -2.8
E 3 14 4.6 SPZ 3.0 0.0

12 25 65 19 20 46.5 18.1S 179.2W 639.KM 5.4 DELTA = 89.7
AZM FROM EPIC= 47.6 FIJI ISLANDS REGION

IP 19 32 40.6 SPZ 1.5 0.0 0.1 0.9

12 26 65 NO EPICENTER DATA

E(P) 8 24 40.4 SPZ -0.0 0.0
E 8 25 5.0 SPZ -0.0 0.0

12 27 65 5 8 0.8 44.2N 129.1W 25.KM 4.8 DELTA = 18.2
AZM FROM EPIC= 95.1 OFF COAST OF OREGON

EP 5 12 13.9 SPZ 2.2 0.0 -0.1 1.1

12 28 65 20 32 25.0 27.8N 141.8E 37.KM 5.9 DELTA = 88.2

AZM FROM EPIC= 45.1 BONIN ISLANDS REGION

IP	20 45 15.4	SPZ	-0.0	0.0	0.2	2.0
ILPBP	20 45 25.4	SPZ	2.5	0.0		-1.5
EPP	20 48 48.2	SPZ	2.5	0.0		5.3

12 28 65 22 4 51.7 3.2S 77.1W 13.KM 5.5 DELTA = 50.2
AZM FROM EPIC= 331.8 PERU ECUADOR BORDER

IP	22 13 50.0	SPZ	1.0	0.0	0.1	0.8
ILPBP	22 13 54.6	SPZ	1.0	0.0		0.7

12 30 65 2 6 29.0 54.1N 164.3W 13.KM 5.7 DELTA = 41.4
AZM FROM EPIC= 85.0 UNIMAK ISLANDS REGION

IP	2 14 17.7	SPZ	1.2	0.0	-0.3	1.4
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12 30 65 6 16 4.1 16.8S 71.1W 112.KM 5.7 DELTA = 64.9
AZM FROM EPIC= 331.5 SOUTHERN PERU

E(P)	6 26 32.6	SPZ	0.8	0.0	0.0	-0.9
IP	6 26 33.6	SPZ	0.6	0.0	0.0	0.1
ELPBP	6 27 0.0	SPZ	-0.0	0.0		-1.4
E	6 27 11.8	SPZ	-0.0	0.0		
E	6 27 24.4	SPZ	-0.0	0.0		

12 30 65 16 33 43.8 58.2N 152.4W 33.KM 5.3 DELTA = 34.9
AZM FROM EPIC= 100.5 KODIAK ISLAND REGION

EP	16 40 45.3	SPZ	1.2	0.0	-0.3	11.2
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THIS PHASE IS PROBABLY LPBP

AZM FROM EPIC= 47.8 AROE ISLANDS REGION

EPKP1	4 3 31.0	SPZ	-0.0	0.0	0.5	-0.8
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1 1 66 13 23 38.8 42.8N 78.2W 10.KM 4.7 DELTA = 20.5
AZM FROM EPIC= 271.4 NEW YORK

EP	13 28 16.9	SPZ	-0.0	0.0	-0.1	-2.3
EPCP	13 32 30.2	SPZ	1.0	0.0		-0.8
E	13 32 54.7	SPZ	-0.0	0.0		
E	13 34 22.9	SPNS	-0.0	0.0		

1 2 66 NO EPICENTER DATA

DERBY EARTHQUAKE GOL MAG 2.3

IP	0 13 49.3	SPZ	-0.0	0.0		
IS	00 13 53.8	SPNS				

A NICE SIZE EARTHQUAKE FOR THIS GAIN.

1 2 66 11 51 48.0 74.6N 71.2W 33.KM 4.7 DELTA = 38.1
AZM FROM EPIC= 224.2 BAFFIN BAY

IP	11 59 5.7	SPZ	0.6	0.0	999.0	0.4
ELPBP	11 59 13.7	SPZ	-0.0	0.0		-1.8
ELR	12 12 4.7	SPZ	2.0	0.0	3.5KM/SEC	