

From E.F.Baxter, 1, Fieldhouse Terrace, Durham.

DURHAM UNIVERSITY OBSERVATORY, READINGS FROM

SEISMOGRAMS 1947

January 1st to June 30th

Readings from two Milne-Shaw (horizontal) seismograms recording North and East components respectively. T=12 secs., damping ratio 20: 1, magnification 250.

Position :- latitude  $54^{\circ}46'$  N, Longitude  $01^{\circ}35'$  W, height above M.S.L. 108 metres.

On many occasions and for a variety of causes either or both the records have been unscrviceable.

Date. 1947	Phase and component	Time G.M.T.	Period secs.	Amplitude microns	Distance degrees.	Time of origin T <sub>0</sub> .
Jan 3	iN	02.58.07				
	iE	02.58.40				
	iN	03.06.08				
	iE	03.12.17				
	iN	03.12.43				
	iE	03.13.48				
Jan.24	iE	17.32.23				
	iN	17.33.14				
	cE	17.34.00				
	iN	17.34.33				
	iE	17.38.10				
	iN	17.39.43				
	iE	17.40.13				
	iNE	17.43.31				
Jan.25	iN	04.28.33				
	iNE	04.30.25				
Jan.26	iPE	10.18.27				
	?ipPE	10.19.13				
	iPPE	10.21.22				
	iSE	10.28.01			74.7	10.06.49
	ME	10.54.	16	14		
Jan.29	iPE	08.30.22				
	cE	08.33.35				
	cE	08.33.45				
	iE	08.34.21				
	iN	08.40.03				
	iNE	08.40.06				
	iNE	08.44.02				
Feb. 7	ME	09.00.	20	7		
Feb.10	MN	04.42.	16	34		
Feb.12	iE	20.54.43				
	ME	21.04.	15	2		
Feb.18	iNE	13.52.12				
	iE	13.54.20				
	iN	13.54.30				
	iE	13.58.02				

Date. 1947	Phase and component	Time G.M.T.	Period secs.	Amplitude microns	Distance degrees.	Time of origin
Feb. 21	iN	22.45.59	12	6		
	iE	22.46.46				
	ME	22.58.				
Feb. 24	cN	17.48.17	21	16		
	iE	17.54.49				
	iNE	17.55.18				
	iE	17.56.26				
	MN	18.20.				
	ME	18.25.				
Mar. 2	iE	19.29.37	22	14		
	iN	19.49.57				
	MNE	20.16.				
Mar. 10	iNE	02.09.55				
	iNE	02.12.15				
	iE	02.19.06				
Mar. 17	iPE	08.37.40	21	238N 338E	58.°5	08.27.47
	iPPN	08.39.58				
	iSE	08.45.43				
	iN	08.47.27				
	MNE	08.59.				
Mar. 25	iE	21.11.22	20	32		
	iE	21.30.48				
	ME	22.18.				
Mar. 29	MN	08.00	7	7		
Apr. 2	cNE	06.00.02	20	56		
	iE	06.08.55				
	iNE	06.09.05				
	iNE	06.19.02				
	MN	06.47.				
	ME	06.50.				
Apr. 2	cNE	21.08.10	14	15N 17E		
	iNE	21.08.41				
	MNE	21.43.				
Apr. 4	iNE	01.56.41				
Apr. 10	iNE	16.02.26	16	10		
	iNE	16.11.19				
	iNE	16.16.23				
	iNE	16.28.01				
	MN	16.36				
	ME	16.43.30				
ME	16.43.30	14	19			
Apr. 11	NE	01.03.19				
Apr. 11	iNE	14.53.07	20	14		
	iNE	14.53.30				
	MN	15.23.				
	ME	15.28.30				
Apr. 12	cE	14.06.22	11	7N 11E		
	iNE	14.14.38				
	MNE	14.19.				

Date. 1947	Phase and component	Time G.M.T.	Period Secs.	Amplitude microns	Distance degrees.	Time of origin $t_0$ .
Apr. 14	iNE	07.37.33				
	iNE	07.37.41				
	MNE	08.08.	21	81N 61E		
Apr. 19	NE	20.42.27				
	iNE	20.42.47				
	ME	20.44	16	14		
Apr. 24	iE	19.41.58				
	iNE	19.44.51				
	iE	19.52.28				
	iE	19.52.34				
	iNE	19.59.35				
	MN	20.01.	11	15		
May 6	ME	20.03.30	12	30		
	iNE	20.51.41				
	iNE	20.52.55				
	iNE	20.53.01				
	iE	21.09.03				
	iNE	21.09.11				
	LE	21.34.51				
	MN	21.41.	21	56		
May 6	ME	21.47.	19	62		
	May 11	iPE	06.37.12			
May 11	E	06.40.35				
	E	06.40.46				
	iSE	06.40.52			19°7	06.32.44
May 17	iN	07.31.43				
	iN	07.41.08				
	iN	07.41.28				
	iN	07.42.08				
	iN	07.45.42				
	iN	07.58.58				
	LN	08.36.33				
	M, N	08.38.30	21	32		
	M <sub>2</sub> N	09.01.	16	16		
May 27	iPN	06.19.10				
	?PPN	06.22.20				
	?PPPN	06.24.43				
	iN	06.27.52				
	iN	06.28.04				
	SN	06.30.12			91°5	06.06.05
	?PSN	06.33.47				
MN	07.01.	22	104			
June 4	iPN	00.34.52				
	iSN	00.38.57			22°5	00.29.56
	iN	00.42.20				
	MN	00.46.	10	12		
June 7	iN	19.11.20				
	iN	19.20.38				
	MN	19.44.	20	33		
June 10	cN	11.49.13				
	cN	11.59.23				
	MN	12.09.	18	6		
June 10	cN	19.31.33				
	cN	19.50.34				
	MN	19.56.	10	4		

Date. 1947	Phase and component	Time G.M.T.	Period secs.	Amplitude microns	Distance degrees.	Time of origin T <sub>0</sub>
June 12	cN	09.21.28	22	20		
	iN	09.22.11				
	iN	09.26.58				
	iN	09.27.42				
	iN	09.29.08				
	MN	10.08.				
June 13	cN	20.42.33	18	18		
	iN	20.42.41				
	cN	20.49.07				
	iN	20.49.13				
	iN	20.50.04				
	iN	20.51.40				
	MN	21.30.				
June 14	iN	00.10.05	18	11		
	iN	00.14.36				
	iN	00.17.03				
	MN	00.55.				
June 19	cN	07.52.31	12	9		
	iN	07.59.17				
	iN	07.59.53				
	iN	08.01.23				
	iN	08.06.37				
	MN	08.39.30				
June 20	cN	23.19.18	9	4		
	MN	23.24.30				
June 30	MN	09.46.30				

DURHAM UNIVERSITY OBSERVATORY, READINGS FROM SEISMOGRAMS, 1947.

JULY 1st to DECEMBER 31st.

Readings from two Milne-Shaw (horizontal) seismographs recording North and East components respectively. T = 12 secs., damping ratio 20:1, magnification 250.

Position:- latitude 54°46' N, longitude 01°35' W, height above M.S.L. 103 metres.

On many occasions and for a variety of causes either or both the records have been unserviceable.

Date 1947	Phase and component	Time G.M.T.	Period, secs.	Amplitude, microns.	Distance, degrees.	Time of origin, T <sub>0</sub>
July 3	NE	09.47.36				
	NE	09.54.27				
	NE	09.57.38				
July 3	E	14.31.40				
	N	14.32.00				
	E	14.32.47				
	NE	14.34.45				
July 7	SN	22.44.55				
	N	22.52.54				
July 10	iN	10.36.25				
	iN	10.48.41				
July 12	iN	02.20.39				
	iE	02.31.46				
	MNE	02.49.	20	1		
July 23	cE	17.40.31				
	ME	18.19.	17	4		
July 24	cE	12.36.41				
	MN	13.30.	20	4		
July 29	iE	13.54.32				
	iN	13.54.35				
	iPNE	13.54.43				
	iSN	14.03.43			68.5	13.43.41
	iNE	14.04.37				
	iE	14.05.00				
	iE	14.05.53				
	iNE	14.06.18				
	iN	14.13.03				
	ME	14.28	17	74		
	MN	14.31	16	160		
	Aug. 4	cE	18.08.02			
MNE		18.35	21	3		
Aug. 5	iPE	14.33.48				
	cN	14.33.55				
	iE	14.34.04				
	iP <sub>c</sub> PNE	14.34.26				
	iE	14.35.56				
	iPPNE	14.36.00				
	iP <sub>c</sub> SNE	14.38.31				
	iSNE	14.41.30			55.0	14.24.19
	iSSE	14.45.48				
	L(R)N	14.49.39				
	MNE	15.04	20	N 111 E 244		

Date 1947	Phase and component	Time C.M.T.	Period, secs.	Amplitude, microns.	Distance, degrees.	Time of origin, T <sub>0</sub>
Aug. 6	eSSE eN MNE	09.54.38 09.54.46 09.59	16	10		
Aug. 6	MN ME	10.29 10.32	13 10	2 2		
Aug. 7	ePE iE iSNE iPSE iPPSNE iScSE iN ME	00.51.04 00.51.09 00.59.43 01.00.03 01.00.28 01.01.00 01.01.06 01.18.	18	15	65.0	00.40.26
Aug. 7	eNE eN eE eE iN iE ME MN	12.34.33 12.35.21 12.35.29 12.37.34 12.38.23 12.38.39 12.41 12.42	16 15.	6 7		
Aug. 9	SNE ?iLN LN	03.06.21 03.15.49 03.18	12	7		
Aug. 14	ME	03.03.	30	12		
Aug. 14	MN ME	04.35 04.36	11 11	5 6		
Aug. 24	iPN&ePE iN eSE MNE	11.54.04 11.56.22 11.58.31 12.06.	9	N 10 E 9	25.2	11.48.43
Aug. 27	eE iE iE iE iE ME	13.57.28 14.02.37 14.02.47 14.13.15 14.22.58 15.17.	20	16		
Aug. 28	MNE	07.40	N 24 E 14	N 23 E 6		
Aug. 28	iSNE iE iN iNE iE iE iNE	14.50.09 14.50.29 14.50.37 14.51.04 14.59.09 15.01.14 15.20.	15	N 7 E 5		
Aug. 28	PNE SNE ME	20.12.39 20.24.28 20.48.	19	3	103.7	19.58.39
Aug. 30	iPNE iNE iSNE iNE	22.27.08 22.31.34 22.31.39 22.31.43	11 10	32 21	25.7	22.21.43

Date 1947	Phase and component	Time G.M.T.	Period, secs.	Amplitude, microns.	Distance, degrees.	Time of origin, T <sub>0</sub>
Sep. 2	eNE iN iN iNE iNE	15.00.22 15.01.39 15.07.08 15.13.35 15.15.18				
Sep. 3	E N NE NE ME MN	19.18.08 19.18.23 19.19.08 19.19.23 20.16 20.18.				
Sep. 4	eN MN	00.53.26 01.49	20	2		
Sep. 10	MN	00.30.	20	7		
Sep. 13	MN	20.27.	24	8		
Sep. 23	eN N iPN iP <sub>c</sub> PN P <sub>c</sub> SN N SN PSN iNE	12.36.16 12.37.06 12.38.16 12.38.36 12.43.28 12.44.39 12.46.48 12.46.54 13.03.	14	N 62 E 66	63.5	12.27.47
Sep. 26	MN	00.39	20	22		
Sep. 26	iPN iPPNE iPPNE iSNE iPSNE iPKKPN ME	16.14.38 16.18.18 16.19.02 16.24.50 16.25.12 16.31.40 16.50	30	105	81.5	16.02.21
Sep. 27	MN	00.20.	33	16		
Oct. 3	iPE ipPE iPPE iPPPE iSN iSSN iSSN iNE MN ME	06.22.52 06.23.10 06.24.32 06.25.02 06.29.08 06.29.26 06.31.41 06.43.09 06.45. 06.53.			42.5 (h = .007R)	06.15.03
Oct. 3-4	iPE PPE iSNE iNE SSNE iE MN ME	23.44.16 23.47.12 23.54.23 23.54.31 23.59.15 00.00.22 00.08. 00.13.	14 20	7 17	80.3	23.32.07
Oct. 5	eNE eNE iNE	19.01.27 19.06.53 19.45.	20	N 23 E 21		

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Date 1947	Phase and component	Time G.M.T.	Period, secs.	Amplitude, microns.	Distance, degrees.	4. Time of origin, T <sub>0</sub>
Oct. 6	ME	15.55.	10	2		
Oct. 6	iPNE	20.00.47				
	iNE	20.00.57				
	iPPNE	20.01.16				
	iP <sub>c</sub> PN	20.05.01				
	iSN	20.05.16			25.5	19.55.23
	iN	20.05.52				
	iSSN	20.06.01				
	MNE	20.11.	20	N 320 E 355		
Oct. 9	LN	08.24.	16	11		
Oct. 9	MN	15.47.	20	10		
Oct. 16	iPNE	02.19.45				
	ipPNE	02.19.54				
	iPPN	02.22.04				
	iPPPN	02.23.32				
	iSNE	02.27.53			60.0	02.09.39
	isSN	02.28.19				
	iSSNE	02.31.47				
	LN	02.44.	19	144		
Oct. 20	MN	02.18.	19	30		
Oct. 27	ME	10.42	11	3		
	MN	10.44.	11	3		
Nov. 1	iPNE	15.11.55				
	iN	15.12.16				
	iE	15.17.16				
	iSKSE	15.22.21				
	iNE	15.22.32				
	iSNE	15.22.41			88.0	14.59.07
	iSSE	15.28.39				
	ME	15.48.	17	54		
	MN	15.52	20	94		
Nov. 4	iN	00.30.55				
	MNE	00.53.	20	N 67 E 92		
Nov. 9	iPKPN	05.17.37				
	iN	05.18.02				
	iN	05.18.56				
	iN	05.24.47				
	iN	05.31.29				
Nov. 10	MNE	04.09.	11	5		
Nov. 21	MN	04.46.				
Nov. 22	MN	10.57.				
Nov. 23	MNE	10.25.	12	11		
Nov. 29	iNE	10.23.25				
	MNE	10.28.				
Dec. 19	eE	04.58.07				
	eE	05.02.18				
	iN	05.06.09				
	iN	05.07.04				
	iN	05.07.16				
	LN	05.13.	11	3		