

DURHAM UNIVERSITY OBSERVATORY, ENGLAND

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



SEISMOLOGICAL BULLETIN FOR JANUARY 1958

Instruments:- Milne-Shaw free period 12 sec, damping ratio 20:1, magnification 250, recording N and E component displacements.
Wilson-Lamison seismometer free period 1 sec, coupled to G.E. galvanometer free period 3.4 sec, recording vertical component of velocity.

No.	Date	Phase and component	Time G.M.T.	Period sec.	Amplitude and direction	microns	Epicentral distance	Notes
1	2	iPNZ eSN iXE iXN MN	02 13 39 18 04 18 41 20 19 02 22	20	- - - + 4		25°	H 02 08 15 (USCGS)
2	2	ePZ	21 23 54				78°	H 21 12 07 .01 deep (USCGS)
3	2	iPZ	22 45 56		+		63°	H 22 35 29 (USCGS)
4	3	iPZ	06 31 41		+		36°	H 06 24 31 (USCGS)
5	3	iSN	07 15 03		+		36°	H 07 02 07 (USCGS)
6	3	iPZ	10 19 41		+		36°	H 10 12 33 (USCGS)
7	3	iPZ	18 00 31		-		95°	H 17 47 12 (USCGS)
8	5	iPZ MN	11 40 38 12 03	30	- 36		59°.5	H 11 30 44 (USCGS)
9	11	iPKPZ	13 38 43		-		149°	H 13 18 47 (USCGS)
10	13	MN	04 10					
11	13	iPZ iXEZ	20 26 56 31 43		- + +		84°	H 20 14 27 (USCGS)
12	14	iPKPZ	06 14 36		+			
13	15	iPEZ ipPZ iXZ iXZ iXEZ iSKSNE ME MZ	19 27 36 27 56 29 34 30 27 31 19 38 04 19 59 20 08	38 16	+ + + + - + - + + 180		92°	H 19 14 29 .01 deep (USCGS)
14	15	ePKPZ eXZ iSKPZ MN MN	22 35 03 35 22 38 50 23 38 24 21	22 18	- 4 1		139°	H 22 15 44 (USCGS)
15	16	iPZ MN	04 23 31 04 32	10	- 4		24°	H 04 18 10 (USCGS)

DURHAM UNIVERSITY OBSERVATORY, ENGLAND
SEISMOLOGICAL BULLETIN FOR JANUARY 1958, sheet 2

No.	Date	Phase and component	Time G.M.T.	Period sec.	Amplitude and direction	microns	Epicentral distance	Notes
16	19	iPZ	14 19 45		-		82°	H 14 07 23 (USCGS)
		iXE	19 54		-			
		iPPZ	22 49		+			
		iSN	29 54		-			
		iSKSNE	30 03		-	-		
		ME	14 56	18	110			
17	19	iPZ	14 55 26		-		82°	H 14 43 24 (USCGS)
		iXZ	55 47		-			
18	20	iPZ	02 34 00		+		104°	H 02 19 53 (USCGS)
		ME	03 21					
		MN	03 26					
19	22	MNE	19 18					
		MNE	19 26					
20	23	ePZ	13 37 45				11°	H 13 35 03 (USCGS)
		eSEZ	39 41					
		MN	13 43	18	3			
21	24	iPZ	06 05 13		-		69°	H 05 53 58 (USCGS)
		iSN	14 22		-			
		MNE	06 43					
22	31	iXZ	21 19 23		+			

22 March 1958



DURHAM UNIVERSITY OBSERVATORY, ENGLAND

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

SEISMOLOGICAL BULLETIN FOR FEBRUARY 1958

Instruments:- Milne-Shaw free period 12 sec, damping ratio 20:1, magnification 250, recording N and E component displacements.
Wilson-Lamison seismometer free period 1 sec, coupled to G.E. galvanometer free period 3.4 sec, recording vertical component of velocity.

No.	Date	Phase and component	Time G.M.T.	Period sec.	Amplitude and direction	microns	Epicentral distance	Notes
1	1	iPZ eSN MN	16 22 34 32 45 17 08	20	+ 18		82°	H 16 10 15 (USCGS) No EW record
2	1	iPZ	18 15 00		+		82°	H 18 02 39 (USCGS) No NS or EW record
3	1	iPZ	20 58 06		+		82°	H 20 45 45 (USCGS) No NS or EW record
4	2	iPZ iSN MN	08 23 31 33 06 09 03		+ +		76°	H 08 11 53 (USCGS) No EW record
5	2	iPZ	09 01 36		-		82°	H 08 49 13 (USCGS) No EW record
6	7	iPZ iSKSN MN	23 35 10 45 13 24 05	20	+ - 2		75°	H 23 23 30 (USCGS)
7	9	ePnZ eSnNEZ	23 21 39 22 04				02°	H 23 21 06 (Kew) 54°01'2"N 01°45'E
8	15	iPZ	01 58 42		+		79°	H 01 46 40 (USCGS)
9	16	iPZ MNE MNE	06 16 12 06 47 06 56	26 20	+ 4 7		83°	H 06 04 05 (USCGS)
10	16	iXE	23 09 57		+			
11	17	iPEZ iPcPZ iPPZ iSN isSN iSSN isSSN iXE	05 27 27 28 34 29 27 34 29 35 45 38 30 39 22 40 17		+ + - + - + + +		51°.5	H 05 18 35 .03 deep (USCGS)
12	18	ME	20 49					No NS record
13	19	ME	20 34					No NS record

DURHAM UNIVERSITY OBSERVATORY, ENGLAND

SEISMOLOGICAL BULLETIN FOR FEBRUARY 1958, sheet 2

No.	Date	Phase and component	Time G.M.T.	Period sec.	Amplitude and direction	microns	Epicentral distance	Notes
14	22	iPZ	11 02 07		+		75°	H 10 50 23 (USCGS)
		iPcPZ	02 27		-			
		iSN	11 47		+			
		iSKSN	12 28		-			
		MN	11 40	20	8			
15	24	iPZ	12 37 15		+		60°	H 12 27 06 (USCGS)
		eXE	41 04					
		eSE	45 24					
		ME	13 06	11	10			
16	27	iXNZ	08 17 50		- +			
		iXN	19 08		-			
		iXN	20 23		-			
17	27	iPZ	23 41 08		+		90°	H 23 27 49 (USCGS)
		iPPZ	44 36		-			
		iSKSN	51 17		-			
		iSNE	51 46		- -			
		ME	24 25	12	15			
		MZ	24 25	12				
18	28	iPZ	10 02 01		-		41° .5	H 09 54 53 (USCGS)
		iSN	08 06		-			
		iXNE	09 06		+ +			
		ME	10 15	20	9			

1 May 1958

DURHAM UNIVERSITY OBSERVATORY, ENGLAND

Position:- $54^{\circ}46'N$ $01^{\circ}35'W$, height above M.S.L. 103 metres.

SEISMOLOGICAL BULLETIN FOR MARCH 1958

Instruments:- Milne-Shaw free period 12 sec, damping ratio 20:1, magnification 250, recording N and E component displacements.

Wilson-Lamison seismometer free period 1 sec, coupled to G.E. galvanometer free period 3.4 sec, recording vertical component of velocity.

No.	Date	Phase and component	Time G.M.T.	Period sec.	Amplitude and direction	microns	Epicentral distance	Notes
1	1	iPZ	09 35 33		-		49°	H 09 26 46 (USCGS)
2	1	iPKPZ	16 34 16		-		143°	H 16 16 01 (USCGS)
3	3	iPKPZ	04 25 44		+		139°	H 04 06 16 (USCGS)
4	3	ePZ MN MN	07 35 38 08 13 08 20	14	3		89°	H 07 22 42 (USCGS)
5	3	iXZ	12 27 30		+			
6	3	iPZ iSN	16 29 28 38 39		+		70°	H 16 18 17 (USCGS)
7	3	eSE	17 11 26				52°	H 16 55 38 .03 deep (USCGS)
8	3	iPZ	17 43 59		-		70°	H 17 32 47 (USCGS)
9	9	ePKPZ ME	10 43 21 11 50				159°	H 10 22 25 .01 deep (USCGS)
10	11	iPZ ipPZ iXNE iXNE iXNZ iXNE iSKSE iSNE MN	00 38 42 39 00 39 30 39 53 42 33 43 27 48 57 49 13 01 20	20	+	105	88°	H 00 25 56 .01 deep (USCGS)
11	14	MN	00 44	20	5		109°	H 23 49 23 (USCGS)
12	15	MN	01 14	18	150		89°	H 00 24 04 (USCGS)
13	15	eZ MN	06 31 47 06 41				$20^{\circ}.5$	H 06 27 00 (USCGS)
14	18	ePZ eXN	22 31 49 41 23				75°	H 22 20 02 (USCGS)

DURHAM UNIVERSITY OBSERVATORY, ENGLAND

SEISMOLOGICAL BULLETIN FOR MARCH 1958, sheet 2

No.	Date	Phase and component	Time G.M.T.	Period sec.	Amplitude and direction	microns	Epicentral distance	Notes
15	20	iPNZ	01 49 47		+ -		75°	H 01 38 04 (USCGS)
		iPPE	52 41		-			
		iSNE	59 27		+ +			
		iSKSNE	02 00 26		+ -			
		iSSNE	04 27		+ +			
		MN	02 24	18	5			
16	22	iPZ	10 23 26		+		74°.5	H 10 11 27 (USCGS)
		iPcPZ	23 37		-			
		MN	10 49	40	16			
17	22	ePZ	11 16 46				50°	H 11 07 47 (USCGS)
		ME	11 41					
18	23	MN	11 12				90°	H 10 14 42 (USCGS)
19	28	iPZ	12 15 12		+		55°	H 12 06 24 .03 deep (USCGS) No EW record
		iXZ	15 29		-			
		iXZ	15 55		-			
		ipPZ	16 13		+			
		iXZ	17 08		-			
		iPPZ	17 29		-			
		iXN	27 16		+			
20	30	iPZ	16 12 23		+		10°	H 16 10 16 (BCIS)

1 May 1958

DURHAM UNIVERSITY OBSERVATORY, ENGLAND



International
Seismological
Centre

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

SEISMOLOGICAL BULLETIN FOR APRIL 1958

Instruments:- Milne-Shaw free period 12 sec, damping ratio 20:1, magnification mm/250, recording N and E component displacements.
Wilson-Lamison seismometer free period 1 sec, coupled to G.E. galvanometer free period 3.4 sec, recording vertical component of velocity.

No.	Date	Phase and component	Time G.M.T.	Period sec.	Amplitude microns and direction	Epicentral distance	Notes
1	3	iPZ	02 28 20	18	+	20°	H 02 23 43 (USCGS)
		iXZ	28 22		+		
		iSN	31 38		+		
		eXE	31 49				
		ME	02 37		9		
2	3	?eXZ	07 26 30			28°	H 07 18 34 (USCGS)
		iSSN	30 32		+		
		MN	07 38				
3	4	ePN	09 23 17			20°	H 09 18 49 (USCGS)
		eSN	25 58				
4	7	iPN	15 40 35	16	+	59°	H 15 30 38 (USCGS)
		iPZ	40 38		+		
		iPE	40 39		+		
		iPcPZ	41 22		-		
		iPPZ	42 54		-		
		iSN	48 36		-		
		iSE	48 41		-		
		iSSE	52 29		-		
		iXN	52 41		+		
		MN	16 10		265		
MZ	16 10	16					
5	7	iPZ	18 17 31	16	-	84°	H 18 05 02 (USCGS)
		iPcPZ	17 39		-		
		iSN	27 56		-		
		iSSN	33 41		-		
		ME	18 56		27		
		MZ	18 59		20		
6	7	ePZ	18 42 39				
7	7	iPZ	18 50 45		-		
8	7	iPZ	19 23 29	13	-	60°	H 19 13 20 (USCGS)
		eSE	31 37				
		ME	19 51		60		
9	8	iPZ	00 24 16		+	58°	H 00 14 20 (USCGS)
		iSE	32 19		+		
10	9	iPZ	06 25 50	15	-	64°	H 06 15 12 (USCGS)
		iSN	34 17		-		
		ME	06 54		2		
11	10	XZ	10 45 12	12			
		XZ	49 52				
		MN	11 29		1		
12	10	iPZ	12 02 14		+	83°	H 11 50 05 (USCGS)
		iXN	02 42		-		
		iXZ	02 51		-		
		eXE	02 51				

DURHAM UNIVERSITY OBSERVATORY, ENGLAND

SEISMOLOGICAL BULLETIN FOR APRIL 1958, sheet 2



No.	Date	Phase and component	Time G.M.T.	Period sec.	Amplitude and direction	microns	Epicentral distance	Notes
13	10	iPZ ipPZ iXZ iSKSN	19 23 30 24 38 29 23 33 42		+ + - -		103°.5	H 19 10 13 .03 deep (USCGS)
14	11	ME	00 10	19				
15	11	iPZ iSE ME ME	01 10 29 20 51 01 44 01 49		- + 3 5		83°.5	H 00 58 13 (USCGS)
16	11	iPZ iPcPZ iPPZ iSNE iSKSE MN	23 23 04 23 17 25 44 32 34 33 32 23 42		+ + + - + + +		69°	H 23 11 19 (USCGS)
17	12	iPZ iSN ME MZ	11 59 12 12 09 05 12 35 12 38		+ - 10		79°	H 11 46 58 (USCGS)
18	12	ePZ eSN MN	13 38 08 49 01 14 20				89°	H 13 25 22 (USCGS)
19	13	ME	04 49				59°	H 04 08 56 (USCGS) No Z record
20	13	ePN iSE eXN MN	09 17 28 25 20 26 40 09 46		- 2		58°	H 09 07 24 (USCGS) No Z record
21	13	iPN iSE iSKSN MN	12 40 29 49 51 50 21 13 21		- + - 27		72°	H 12 29 07 (USCGS) No Z record
22	14	iPEZ iXZ iXZ iXN iSNE MZ MN ME	21 44 52 45 48 46 14 51 57 55 09 22 18 22 19 22 27		+ + - + + - - 14 18		82°.5	H 21 32 28 (USCGS)
23	14	iXZ ME	23 00 56 23 25		+ 1			
24	15	iPEZ iSN iSKSN ME	01 43 08 53 22 53 37 02 21		+ - - - 1		83°	H 01 30 43 (USCGS)

No.	Date	Phase and component	Time G.M.T.	Period sec.	Amplitude and direction	microns	Epicentral distance	Notes
25	15	iPZ iSNE ME ME	04 04 43 14 40 04 35 04 43		+ + + 5 4		78°	H 03 52 39 (USCGS)
26	17	?XZ ?XZ MN	10 21 29 22 17 11 18				114°	H 10 04 46 (USCGS)
27	18	ePKPZ eSKSN	09 22 27 29 28				123°	H 09 03 27 (USCGS)
28	19	eSN MN	04 25 50 04 49				81°	H 04 03 26 (USCGS) No EW record
29	19	ePZ	22 53 42				73°	H 22 42 20 (USCGS)
30	21	MNE	06 28					
31	21	ePKPZ MN	20 34 22 21 31	20	2		141°	H 20 14 47 (USCGS)
32	21	ePZ eSKSN eSE	22 51 50 23 02 44 03 27				104°	H 22 37 18 (USCGS)
33	22	ePZ MN	10 08 37 10 22				28° .5	H 10 02 43 (USCGS)
34	23	iPZ eSE	03 09 56 19 49		+		79°	H 02 57 40 (USCGS)
35	24	iPKPZ iXZ eXE eXE	13 29 26 29 38 38 52 40 48		- +		148°	H 13 09 41 (USCGS)
36	26	eXE	09 44 00					
37	27	iPZ iXZ MN	19 15 39 15 50 19 53	16	+ - 2		73°	H 19 03 50 (USCGS)
38	28	iPZ eSKSE iSNE ME ME	12 00 42 11 07 11 26 12 35 12 41		- + + 6 5		89°	H 11 47 40 (USCGS)
39	30	iPZ iXZ iSNE	14 12 30 12 37 16 07		- + + -		19°	H 14 08 00 (USCGS)

8 July 1958

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DURHAM UNIVERSITY OBSERVATORY, ENGLAND



Position:- $54^{\circ}46'N$ $01^{\circ}35'W$, height above M.S.L. 103 metres.

SEISMOLOGICAL BULLETIN FOR MAY 1958.

Instruments:- Milne-Shaw free period 12 sec, damping ratio 20:1, magnification 250, recording N and E component displacements.
Wilson-Lamison seismometer free period 1 sec, coupled to G.E. galvanometer free period 3.4 sec, recording vertical component of velocity.

No.	Date	Phase and component	Time G.M.T.	Period sec.	Amplitude microns and direction	Epicentral distance	Notes
1	1	iPKPZ ipPKPZ iPPZ ipPPZ iPKSN ME	00 48 19 49 17 51 36 51 55 52 49 01 45	21	+ - - - +	138°	H 00 29 15 .03 deep (USCGS)
2	2	MN	13 36	20			
3	3	eXN MN	08 20 41 08 43	16			
4	3	iPZ iXZ iPPZ eXNE ME	20 23 36 23 44 24 21 32 36 20 37		+ + -	$24^{\circ}.5$	H 20 18 20 (USCGS)
5	4	MN	11 00			12°	H 10 52 45 (BCIS)
6	5	iPZ eSE MN	05 28 41 34 39 05 45	15	- 2	37°	H 05 21 33 (USCGS)
7	5	iPZ iXZ eSN MN	06 42 45 43 00 52 12 07 16	12	+ - 1	69°	H 06 31 39 (USCGS)
8	5/6	eSNE ME	00 12 27 00 28	15		63°	H 23 53 29 (USCGS)
9	6	MN	04 39	12			
10	6	iXE ME	14 27 13 14 34	13			
11	7	eXE eXN	07 40 17 40 27				
12	8	ePN MN	02 51 45 02 57			19°	H 02 47 14 (USCGS)
13	8	ePPZ iSKSNE	12 58 24 13 04 22		+ +	106°	H 12 40 46 .03 deep (USCGS)
14	9	iPZ ME	02 46 44 02 58		-	27°	H 02 40 49 (USCGS)
15	10	ePN eSE MN	23 04 35 12 43 23 33	18		58°	H 22 54 40 (USCGS)

DURHAM UNIVERSITY OBSERVATORY, ENGLAND

SEISMOLOGICAL BULLETIN FOR MAY 1958, sheet 2



No.	Date	Phase and component	Time G.M.T.	Period sec.	Amplitude and direction	microns	Epicentral distance	Notes
16	11	ePN eSE MN	05 33 58 42 02 06 02	18			58°	H 05 23 54 (USCGS)
17	12	eSNE MN	05 59 24 06 27	18			74°	H 05 38 16 (USCGS)
18	15	ePN	04 37 37				74°	H 04 24 50 (USCGS)
19	17	eSE	05 38 39				38°	H 05 25 34 (USCGS)
20	17	ME	08 21					
21	18	iXN MN MN	02 55 52 03 52 04 37	19 19	+ 3 2		139°	H 02 32 52 (USCGS) No Z record
22	18	iPKPZ iXN MN	13 40 27 44 21 13 56	19	- - 2		139°	H 12 21 18 (USCGS)
23	25	MN	01 27	21			74°	H 00 35 23 (USCGS)
24	25	iPZ MN	15 06 16 15 46	19	+		74°	H 14 54 30 (USCGS)
25	25	iPZ	17 53 22		-		85°.5	H 17 40 47 (USCGS)
26	25	iPZ iXZ iSNE iSKSE ME	21 24 14 24 25 34 41 36 10 21 59	20	- - + + + 5		84°	H 21 11 45 .02 deep (USCGS)
27	26	iPZ iXZ iSN	09 02 16 02 24 12 43		- - +		84°	H 08 49 47 .02 deep (USCGS)
28	26	eSE	11 17 36				73°	H 10 56 30 (USCGS)
29	26	iPKPZ	16 36 44		-		148°	H 16 16 48 (BCIS)
30	27	iPZ	18 33 08		-		26°.5	H 18 27 47 (BCIS)
31	30	ePZ	03 20 13				15°	H 03 16 42 (BCIS)
32	30	iPZ iXZ iSN MN	18 16 23 17 13 15 59 18 55	12	- + + 3		73°	H 18 04 50 (USCGS) No EW record
33	31	iPZ MN	03 56 54 04 11	18	-		33°	H 03 50 12 (BCIS)



DURHAM UNIVERSITY OBSERVATORY, ENGLAND

SEISMOLOGICAL BULLETIN FOR MAY 1958, sheet 3

No.	Date	Phase and component	Time G.M.T.	Period sec.	Amplitude and direction	microns	Epicentral distance	Notes
34	31	ePKPZ	19 52 02				141°	H 19 32 30
		iPKPZ	52 09		+			(USCGS)
		iPPN	54 57		-			
		iXN	55 38		+			
		iSKPZ	55 42		-			
		ME	20 43	21		8		
		MN	20 52	22		18		

8 July 1958

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DURHAM UNIVERSITY OBSERVATORY, ENGLAND

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



SEISMOLOGICAL BULLETIN FOR JUNE 1958.

Instruments:- Milne-Shaw free period 12 sec, damping ratio 20:1, magnification 250, recording N and E component displacements.
Wilson-Lamison seismometer free period 1 sec, coupled to G.E. galvanometer free period 3.4 sec, recording vertical component of velocity.

No.	Date	Phase and component	Time G.M.T.	Period sec.	Amplitude and direction	microns	Epicentral distance	Notes
1	1	ePN	04 11 23				73°	H 04 00 06 (USCGS)
2	1	iPZ ME	18 31 35 18 59		-			
3	2	iXZ	14 58 47		-			
4	3	iPKPZ iPPZ iXZ iPKSN eSKSN	19 51 23 54 22 54 53 55 00 58 26		- - + -		140°	H 19 31 52 (USCGS)
5	4	iPZ iSE iXN MN	14 41 17 50 43 50 55 15 16	20	+ - + 11		73°	H 14 29 50 (USCGS)
6	5	ePZ eXZ iXZ eSE ME	13 34 51 34 56 35 34 39 03 13 43		-		23° .5	H 13 29 43 (BCIS)
7	6	ePEZ iXZ iPcPZ iXZ ePPE iSN iScSE iSPE eSSN ME	09 23 27 23 32 23 40 23 45 26 31 33 24 33 46 34 12 38 28 10 03	18	- + + + - - - 10		79°	H 09 11 18 (USCGS)
8	6	iPZ iPcPZ ePPZ eSE eSKSE ME	19 27 49 27 58 30 57 37 41 37 58 19 56		+ + - - -		80° .5	H 19 15 28 (USCGS) No NS record
9	6	iPZ eSN eSKSN	22 56 15 23 06 16 06 35		+ - -		79° .5	H 22 44 05 (USCGS)
10	8	iPZ iPPZ iSN iSKSNE MN	00 50 25 53 19 59 37 01 00 22 01 29	18	- - + + -		72°	H 00 38 52 (USCGS)
11	8	eSNE eSSN	21 26 36 31 13				55° .5	H 21 09 23 (USCGS)

DURHAM UNIVERSITY OBSERVATORY, ENGLAND

SEISMOLOGICAL BULLETIN FOR JUNE 1958, sheet 2



No.	Date	Phase and component	Time G.M.T.	Period sec.	Amplitude and direction	microns	Epicentral distance	Notes
12	10	ePZ	00 22 01				73°	H 00 10 30 (USCGS)
13	10	ePKPZ	04 20 14				155°	H 04 00 04 (USCGS)
14	12	iPZ	21 04 29		-		73°	H 20 52 57 (USCGS)
		iXZ	05 11		-			
		eSNE	13 53					
		iSKSNE	14 26		+ +			
		MN	21 39	18	20			
15	15	iPKPZ	15 13 08		-		144°	H 14 54 37 .01 deep (USCGS)
		iXZ	16 00		+			
		iSKKSN	22 21		-			
		iSSN	34 15		-			
16	17	iPPZ	19 23 49		+		95°	H 19 06 43 .01 deep (USCGS)
17	18	iPZ	01 18 43		+		16°	H 01 15 02 (USCGS)
		iXZ	18 48		+			
		eSNE	21 43					
		ME	01 25	9.5	7			
		MN	01 26	10	7			
		MZ	01 26	10				
18	18	ePNZ	02 27 10				16°	H 02 23 24 (BCIS)
		eSN	30 09					
		MN	02 34	10	2			
19	18	iPN	04 37 43		+		16°	H 04 34 04 (USCGS)
		ePZ	37 43					
		ePE	37 49					
		eSNE	40 55					
		MN	04 45	10	3			
		MZ	04 45	10				
20	19	ePNZ	05 29 38				74°	H 05 18 00 (USCGS)
		iSN	39 12		+			
		MN	06 08	20	7			
21	23	iPZ	05 20 06		-		59°	H 05 10 03 (USCGS)
		ME	05 49	12	4			
		MZ	05 49	12				
22	23	MN	07 27					
23	23	ePKPZ	19 36 08				144°.5	H 19 17 43 0.1 deep (USCGS)
24	24	iPcPZ	04 59 47		-		53°	H 04 48 15 (USCGS)
		iSN	05 05 08		-			
		iScSE	07 31		+			
		ME	05 21					
25	24	MN	06 19	9			16°	H 06 07 06 (BCIS)
26	24	ME	07 43	20	3			



No.	Date	Phase and component	Time G.M.T.	Period sec.	Amplitude and direction	microns	Epicentral distance	Notes
27	25	iPKPZ	09 55 28		-		122°	H 09 36 30 (USCGS)
		iXZ	55 33		+			
		iPPZ	57 09		-			
		eSKSE	10 02 23					
		eSSE	13 29					
		ME	10 42	24	38			
		MZ	10 50	20				
		MN	10 52	20	23			
28	26	iPZ	04 49 24		+		70°	H 04 38 12 .02 deep (USCGS)
		ipPZ	49 55		-			
		iSE	58 27		-			
		isSE	59 16		+			
		iXN	05 00 17		+			
29	26/27	iSE	23 53 19		-		89°	H 23 29 32 (USCGS)
		MN	00 32	15				
30	27	MN	06 27				77°.5	H 05 44 28 .01 deep (USCGS)
31	29	iPZ	03 38 41		+		90°.5	H 03 25 42 .02 deep (USCGS)
		eSN	49 21					
32	29	ePKPZ	09 34 27				142°	H 09 14 37 (USCGS)
		eSKSE	41 27					
33	29	ePZ	12 59 37				141°.5	H 12 40 48 (USCGS)
		iXZ	59 50		+			
		eSKSN	13 07 44					
34	30	iPZ	08 48 15		+		27°	H 08 42 41 .01 deep (BCIS)
		iXZ	48 27		+			
		isPNEZ	48 40		- + -			
		iPPZ	49 04		-			
		iXE	52 35		-			
		iSN	52 44		-			
		isSN	53 20		-			
		eXE	53 39					
		eSSN	54 08					
		iScPN	55 05		+			
		iScPZ	55 06		-			
		iScSNE	58 55		+ -			
35	30	iPZ	18 39 17		-		89°	H 18 26 20 (USCGS)
		iXZ	39 31		-			
		eSKSN	49 41					
		iSNE	49 59		- +			
		ME	19 15	20	3			

DURHAM UNIVERSITY OBSERVATORY
ENGLAND

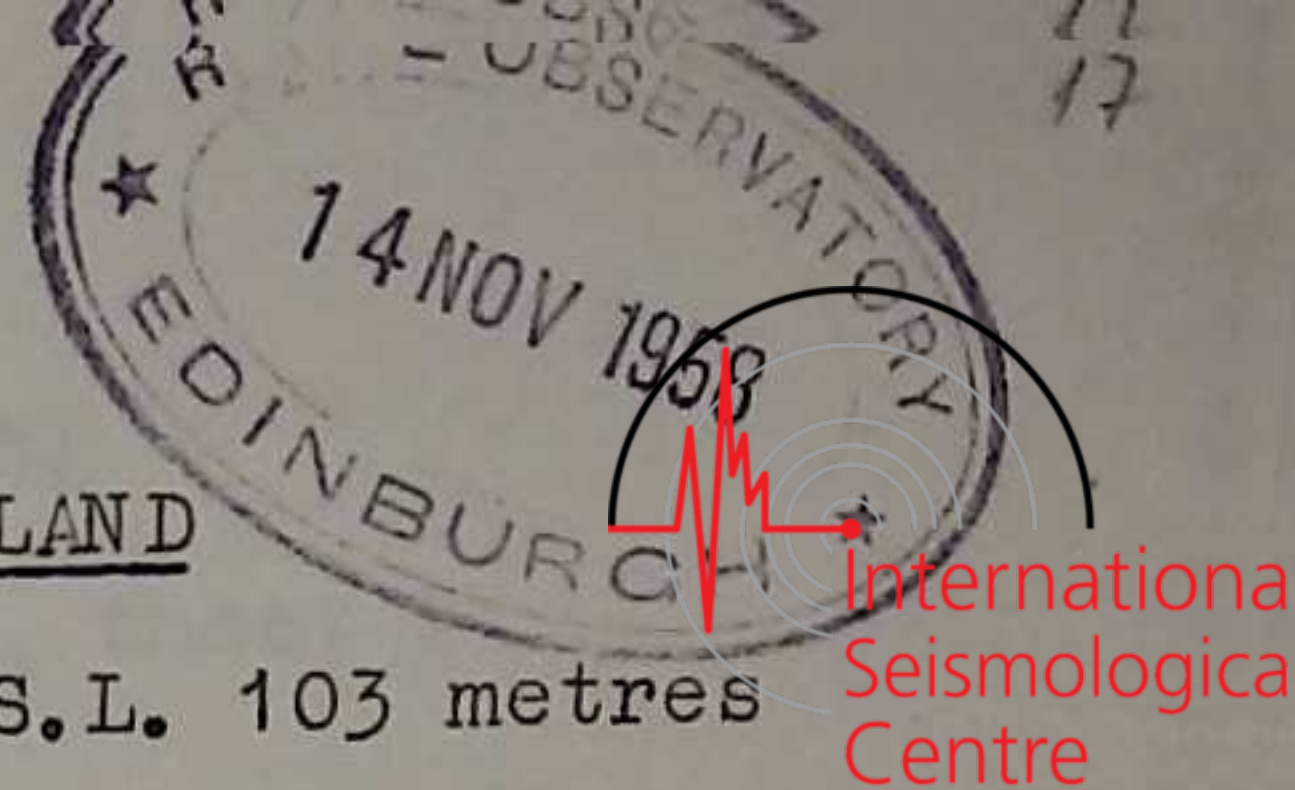
International Geophysical Year
Measurement of microseisms 1958.



Throughout the month of JUNE the microseismic displacement as recorded by the N and E component seismographs has been less than 1 micron.

8 October 1958

DURHAM UNIVERSITY OBSERVATORY, ENGLAND



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

SEISMOLOGICAL BULLETIN FOR JULY 1958.

Instruments:- Milne-Shaw free period 12 sec, damping ratio 20:1, magnification ratio 250, recording N and E component displacements.
Wilson-Lamison seismometer free period 1 sec, coupled to G.E. galvanometer free period 3.4 sec, recording vertical component of velocity.

No.	Date	Phase and component	Time G.M.T.	Period sec.	Amplitude microns and direction	Epicentral distance	Notes
1	1	ePE iXZ MN	06 04 37 06 35 06 47	15	+	73° .5	H 05 53 07 (USCGS)
2	2	ePKPZ	05 06 45			144°	H 04 48 03 .06 deep (USCGS)
3	3	iPZ eSKSN eSN MN	05 58 32 06 08 56 09 28 06 46	15	+	92° .5	H 05 45 07 (USCGS)
4	3	iPKPZ iPKPZ epPKPEZ iPPZ	06 47 04 47 21 48 13 50 55		+ + -	153° .5	H 06 27 44 .07 deep (USCGS)
5	4	ePKPZ	00 39 10			144° .5	H 00 19 28 (USCGS)
6	4	eSN	19 00 19			105°	H 18 34 03 (USCGS)
7	5	iXZ ME	02 13 42 02 28		-	30°	H 02 05 57 (MOSCOW)
8	6	iXZ iXN	04 54 02 05 02 20		- -	69°	H 04 40 59 (USCGS)
9	7	eSN	05 37 30			75°	H 05 16 04 (USCGS)
10	8	ePZ iXZ iXZ iXZ iSZ iXZ eXNZ MN	05 04 25 04 35 04 55 05 10 05 56 06 36 07 21 05 09	7	- - + - -	08°	H 05 02 26 (BCIS)
11	8	iPKPZ iPKPN iPPN	06 26 12 26 15 29 39		- - -	147°	H 06 06 28 (USCGS)
12	8	ME	23 47	18		104°	H 22 48 36 (USCGS)

DURHAM UNIVERSITY OBSERVATORY, ENGLAND

SEISMOLOGICAL BULLETIN FOR JULY 1958, sheet 2



No.	Date	Phase and component	Time			Period sec.	Amplitude microns and direction			Epicentral distance	Notes
			G.	M.	T.						
13	10	iPNEZ	06	26	16		+	-	-	61°	H 06 15 54 (USCGS)
		iPcPE		27	06		-				
		iXNE		28	38		-	-			
		iScPZ		31	06		-				
		iXNE		34	18		-	-			
		iSNE		34	45		-	-			
		iXNE		34	53		+	+			
		iSSNE		38	48		-	+			
		MN	06	54					20	600	
14	10	ME	15	28							
15	11	ePZ	19	23	45					95°	H 19 10 20 (USCGS)
		iPPZ		27	41		+				
		eSE		34	26						
		eSKSE		34	47						
		ME	20	02					2		
16	12	ePZ	01	02	38					102°	H 00 48 30 (USCGS)
		eSKSE		13	09						
		eSE		14	14						
		ME	01	45							
17	13	iXZ	20	50	40		+				
		eXNE		51	35						
18	15	ePZ	08	04	54					25° .5	H 07 59 18 (USCGS)
		eSNE		09	34						
		ME	08	15					13		
19	17	iPZ	05	42	01		+			22°	H 05 37 00 (BCIS)
		iSE		45	54		+				
		SSN		46	36						
		ME	05	51					11		
20	17	eSE	19	23	20					74°	H 19 02 10 (USCGS)
		ME	19	54					19		
21	17	eSE	21	20	31					74°	H 20 59 17 (USCGS)
		ME	21	50					18		
22	18	iPZ	00	51	25		-			75°	H 00 39 18 (USCGS)
		eSE	01	00	35						
		eSKSE		01	23						
		ME	01	26					16		
23	18	iPZ	01	59	58		+			85°	H 01 47 21 .02 deep (USCGS)
		epPNE	02	00	33						
		eSNE		10	25						
24	18	ePZ	21	50	51					91°	H 21 38 05 (USCGS)
		iSKSN	22	01	00		-				
		iSN		01	24		+				
25	19	ePPN	06	50	24					120°	H 06 30 19 .03 deep (USCGS)
		eSKSN		55	41						
26	19	eSE	15	19	32					79° .5	H 14 57 24 (USCGS)
		ME	15	50							

DURHAM UNIVERSITY OBSERVATORY, ENGLAND

SEISMOLOGICAL BULLETIN FOR JULY 1958, sheet 3



No.	Date	Phase and component	Time G.M.T.	Period sec.	Amplitude and direction	microns	Epicentral distance	Notes
27	19	ePKPE ePKSNE iSKSNE ME	18 35 42 39 32 43 28 19 26	21	- - 14		112 ⁰ .5	H 18 16 52 (USCGS)
28	20	eXZ eXZ iXNZ iXZ iXZ	19 31 01 31 13 32 00 32 47 33 11		- + + -		09 ⁰	H 19 27 17 (BCIS)
29	21	iPZ eSN ME MN	07 36 58 46 43 08 09 08 19	21 16	- 2 2		77 ⁰ .5	H 07 24 58 (USCGS)
30	21	iPNZ iSNE MN MN	14 48 55 58 28 15 21 15 33	18 15	- - - + 1 2		74 ⁰	H 14 37 18 (USCGS)
31	22	iPZ eSE	04 05 52 14 13		+ -		61 ⁰ .5	H 03 55 35 (USCGS)
32	23	iXZ iXZ	03 10 37 12 19		- -			
33	23	ePE iXN iSE ME ME	10 40 40 50 45 51 05 11 16 11 30	19 15	+ - 9 10		89 ⁰	H 10 27 19 (USCGS)
34	24	iPZ	13 19 49		+		72 ⁰ .5	H 13 08 05 (USCGS)
35	26	ePZ eSKSNE eSNE eSSN MN	06 27 58 38 41 39 40 46 52 07 19	18	5		103 ⁰	H 06 13 50 (USCGS)
36	26	iPZ ipPZ iPPE iXE iSKSE iSN iXN eXE isSE iXE iXNZ iPKPPKPZ ipPKPPKPZ	17 49 00 51 13 52 48 58 37 58 46 59 02 59 21 18 00 07 02 10 02 47 03 01 14 51 17 30		- - - - - - + - - - + - - +		89 ⁰	H 17 37 09 0.1 deep (USCGS)
37	27	iPKPZ	00 41 09		-		145 ⁰ .5	H 00 22 32 0.1 deep (USCGS)
38	27	iPZ ePPN eSKSE	17 32 54 36 53 43 27		+		99 ⁰	H 17 19 03 (USCGS)



DURHAM UNIVERSITY OBSERVATORY, ENGLAND

SEISMOLOGICAL BULLETIN FOR JULY 1958, sheet 4

No.	Date	Phase and component	Time G.M.T.	Period sec.	Amplitude and direction microns	Epicentral distance	Notes
39	27	iPNE iSN MN	18 35 01 38 39 18 42	10	- - + 2	19°	H 18 30 33 (USCGS)
40	28	MN	16 09	11	2		
41	29	ePNZ eXNZ ePcPN ePPN iSN MN	21 46 57 47 32 48 03 49 08 54 37 22 04	12	+ 1	55°	H 21 37 25 (USCGS)
42	30	MN	03 37	20		81°.5	H 02 47 17 (USCGS)
43	30	eSKSE ME	05 10 33 05 56	20		119°	H 04 44 53 (USCGS)
44	31	eSKSE	02 25 32			74°	H 02 03 45 (USCGS)

3 November 1958



DURHAM UNIVERSITY OBSERVATORY, ENGLAND

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

SEISMOLOGICAL BULLETIN FOR AUGUST, 1958.

Instruments:- Milne-Shaw free period 12 sec, damping ratio 20:1, magnification 250, recording N and E component displacements.
Wilson-Lamson seismometer free period 1 sec, coupled to G.E. galvanometer free period 3.4 sec, recording vertical component of velocity.

No.	Date	Phase and component	Time G.M.T.	Period sec.	Amplitude and direction	microns	Epicentral distance	Notes
1	1	ePKPZ eSKSNE	05 56 30 06 02 36				141° _{.5}	H 05 37 50 .07 deep (USCGS)
2	3	ePKPZ ePPZ eSKSNE	01 25 06 28 38 31 26				148°	H 01 06 24 .09 deep (USCGS)
3	3	iXZ eXN eXN	11 29 20 35 23 37 41		+			
4	4	iXN iXN	04 36 42 39 35		+		118°	H 04 13 19 .02 deep (USCGS)
5	6	ePnZ eXZ eXZ eXZ eXZ eXEZ eXZ iXZ iXZ	17 17 36 17 48 18 20 18 29 18 50 18 56 19 06 19 13 20 14				06°	H 17 16 05 (USCGS)
6	6	iPKPZ iPPN eSSN	21 28 47 31 35 50 52		+		141° _{.5}	H 21 09 09 (USCGS)
7	8	eSN eLNZ	05 35 30 37 06				13° _{.5}	H 05 29 35 (BCIS)
8	8	ePZ eXE eXNE eLZ	20 40 39 40 53 44 58 45 53				13° _{.5}	H 20 37 26 (BCIS)
9	11	ePPN	08 15 15				143° _{.5}	H 07 53 12 (USCGS)
10	12	ME	17 12				79°	H 16 23 42 (USCGS)
11	12	ePKPZ ePPE eSKSE MN	19 43 50 44 20 50 35 20 34	19	9		111°	H 19 25 05 (USCGS)
12	13	eXNEZ ME	07 49 23 08 10	12	1			

DURHAM UNIVERSITY OBSERVATORY, ENGLAND

SEISMOLOGICAL BULLETIN FOR AUGUST 1958 sheet 2



No.	Date	Phase and component	Time G.M.T.	Period sec.	Amplitude and direction	microns	Epicentral distance	Notes
13	13	iPNZ iSN iSKSN eSSN	20 24 45 34 18 34 56 39 33		- + + +		74 ^o .5	H 20 13 00 (USCGS)
14	14	ePcPE eSNE ME	11 36 31 40 34 11 53	21	6		39 ^o .5	H 11 27 00 (USCGS)
15	14	iPNZ iSN eSKSN MN	15 06 49 16 16 16 50 15 46	17	- - - 26		73 ^o .5	H 14 55 10 (USCGS) No EW record
16	15	iPZ iPcPZ iXZ iSNE iSSN MN	20 06 56 07 08 07 27 16 07 20 40 20 47	18	+ + - - - - 16		71 ^o .5	H 19 55 39 .01 deep (USCGS)
17	15	ePE eXZ ePKPE ePKPZ eXZ iPPNEZ ipPKPZ iXZ iSKSE isSKSE iXE iXNE MN MN	22 44 16 46 48 47 17 47 20 47 32 47 49 48 09 48 37 53 41 54 39 55 04 56 41 23 26 23 29	30 20	- - + - - - - + - + 116 58		109 ^o	H 22 29 17 .03 deep (USCGS)
18	16	iPKPZ iPKPZ ME	11 33 36 33 47 12 47	18	+ -		150 ^o	H 11 13 48 (BCIS)
19	16	ePZ eXE eSN eSKSN MN	13 29 33 39 05 39 19 40 09 14 08	18	4		73 ^o .5	H 13 17 52 (USCGS)
20	16	iPNEZ iPPEZ iPcPZ iSN iSSE MN	19 21 18 22 49 23 26 27 18 30 07 19 39	19	- - - - - - - 77		39 ^o .5	H 19 13 45 (BCIS)
21	17	ME	05 04	11				No NS record
22	17	ePZ eSKSE ME	09 19 54 30 15 09 58	18			73 ^o .5	H 09 08 35 (USCGS) No NS record
23	17	ePZ	11 27 33				73 ^o .5	H 11 16 13 (USCGS)
24	17	ePZ ePPZ ME	18 20 09 21 48 19 03	26	10		122 ^o .5	H 18 01 05 (USCGS) No NS record

DURHAM UNIVERSITY OBSERVATORY, ENGLAND

SEISMOLOGICAL BULLETIN FOR AUGUST 1958, sheet 3



No.	Date	Phase and component	Time G.M.T.	Period sec.	Amplitude and direction	microns	Epicentral distance	Notes
25	17	iPKPZ iPKPZ eXE	21 31 07 31 53 39 17		- +		161°	H 21 11 09 (USCGS) No NS record
26	18	ePE eSE eSKSE	10 28 36 38 19 38 49				76°	H 10 16 40 (USCGS) No NS record
27	18	ePE	15 47 37				75°.5	H 15 19 20 (USCGS) No NS record
28	19	ePE eSKSN eSN	16 40 43 49 37 49 57				71°	H 16 29 36 (USCGS)
29	19	ePPN eSKSN eSSN MN	22 08 31 14 08 25 27 22 57	21			121°	H 21 48 07 (USCGS)
30	20	ePKPZ iPPN eSKPEZ MN	03 59 40 04 02 27 03 24 04 57	20	-		138°	H 03 40 07 (USCGS)
31	20	MN	09 44	13	2		70°.5	H 09 20 10 (USCGS)
32	21	iPKPZ	01 28 52		+		149°	H 01 09 00 (USCGS)
33	21	iPKPZ ePKPE eXZ iSKPZ	21 18 13 18 13 20 03 21 11		+ - -		145°	H 20 59 10 .04 deep (USCGS)
34	26	eSKPN	23 54 41				138°	H 23 31 38 (USCGS)
35	27	ePZ eSKSE eSE	02 39 23 50 11 51 11				102°	H 02 25 32 (USCGS)
36	27	iPEZ iPEZ iXNE iXNE iSN iSN iXZ MN	15 21 38 21 39 22 36 23 23 25 48 25 49 25 54 15 34	16	+ - - + + - + - - + - 60		22°.5	H 15 16 34 (BCIS)
37	29	ePKPN iSKSN	12 43 49 50 21		-		139°	H 12 24 23 (USCGS)
38	30	ePNE eSN	07 40 50 44 59				22°.5	H 07 35 42 (BCIS)
39	30	MN	19 25	12	1		79°	H 18 38 18 (USCGS)



DURHAM UNIVERSITY OBSERVATORY, ENGLAND

SEISMOLOGICAL BULLETIN FOR AUGUST 1958, sheet 4

No.	Date	Phase and component	Time G.M.T.	Period sec.	Amplitude and direction	microns	Epicentral distance	Notes
40	31	iPZ	23 10 15		+		59°	H 23 00 16 (USCGS)
		iPcPZ	11 08		-			
		iXNZ	12 21		+ -			
		iPPE	12 30		+			
		iSE	18 23		-			
		MN	23 36	17	2			
41	31	iPKPZ	23 46 58		-		161°	H 23 27 27 (BCIS)

12 November 1958

24 DEC 1958



DURHAM UNIVERSITY OBSERVATORY, ENGLAND



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

SEISMOLOGICAL BULLETIN FOR SEPTEMBER, 1958

Instruments:- Milne-Shaw free period 12 sec, damping ratio 20:1, magnification 250, recording N and E component displacements. Wilson-Lamison seismometer free period 1 sec, coupled to G.E. galvanometer free period 3.4 sec, recording vertical component of velocity.

Table with columns: No., Date, Phase and component, Time G.M.T., Period sec., Amplitude microns and direction, Epicentral distance, Notes. Contains 11 rows of seismic event data.

SEISMOLOGICAL BULLETIN FOR SEPTEMBER 1958 sheet 2



No.	Date	Phase and component	Time G.M.T.	Period sec.	Amplitude and direction	microns	Epicentral distance	Notes
12	8	ePNZ eXEZ eSKSE ME	22 39 38 41 13 49 35 23 25				107°	H 22 24 55 (USCGS)
13	9	eSE	11 53 43				77°	H 11 32 05 (USCGS)
14	9	eSN	22 44 18				71°	H 22 23 37 (USCGS)
15	11	iPZ iPPZ eSE ME	18 15 45 19 50 27 15 19 05	20	- -		104°.5	H 18 01 45 (USCGS)
16	12	ePKPE eXE	05 56 20 06 02 20				119°	H 05 37 53 (USCGS)
17	14	iPZ iPcPZ iXZ iPPZ iSN iSSNE ME MN MZ	14 31 42 32 32 32 47 34 00 39 55 43 44 14 55 15 00 15 07	10 16 10	+ + - - + + - 13 9		59°.5	H 14 21 37 (USCGS)
18	14	iPZ iPZ iPPZ eSN	21 44 30 44 31 47 43 54 52		- + -		85°	H 21 31 43 (USCGS)
19	14	ePZ	21 56 55					
20	15	iPZ ePN epPZ eXZ ePPZ iXEZ iXNE iSKSE iXE iSN iXN MN	19 58 51 58 51 20 00 58 02 57 03 19 03 25 05 34 08 22 09 49 09 51 12 33 20 52	20	- - - - - - + - + - -		105°.5	H 19 45 40 0.1 deep (USCGS)
21	17	iPZ	12 35 37		-		75°	H 12 23 50 (USCGS)
	18	No recordings 01 hrs to 19 hrs.						
22	18	iPZ	21 01 52		-		51°	H 20 53 05 .03 deep (Quetta)
23	19	iPZ iPZ	17 30 29 30 30		- +		72°.5	H 17 18 40 (USCGS)
24	20	iPKPZ ME	17 28 32 18 25	20	-		128°	ii 17 09 24 (USCGS)



No.	Date	Phase and component	Time G.M.T.	Period sec.	Amplitude microns and direction	Epicentral distance	Notes
25	21	iPZ	05 57 27		-	82°	H 05 45 10 (USCGS)
26	22	iPKPZ	19 25 42		-	159°	H 19 05 44 (USCGS)
		iPKPZ	26 17		-		
		iXZ	26 30		-		
		iPPNZ	29 56		- +		
		iPPPZ	33 17		-		
		eSKKSN	36 42				
		eSSE	49 59				
		MN	20 48	20	3		
27	24	iPZ	03 54 37		-	62° .5	H 03 44 14 (USCGS)
		iPPZ	57 00		+		
		eSN	04 03 11				
		iXN	03 21		-		
		eSKSN	04 42				
		ME	04 20	16	6		
28	25	iPZ	07 29 33		-	55°	H 07 20 02 (USCGS)
		iXZ	29 44		-		
		iPcPZ	30 53		-		
		iPPZ	32 02		+		
		iSNE	37 30		+ -		
		iSPEZ	37 36		+ +		
		ME	07 50	20	40		
29	25	iXZ	23 42 46				
		MN	23 59				
30	27	ME	11 50				
31	29	iPZ	14 29 45		-	81° .5	H 14 17 11 (USCGS)
		ME	15 05				
32	30	eSE	17 08 40			8° .5	H 17 05 06 (BCIS)

23 December 1958.

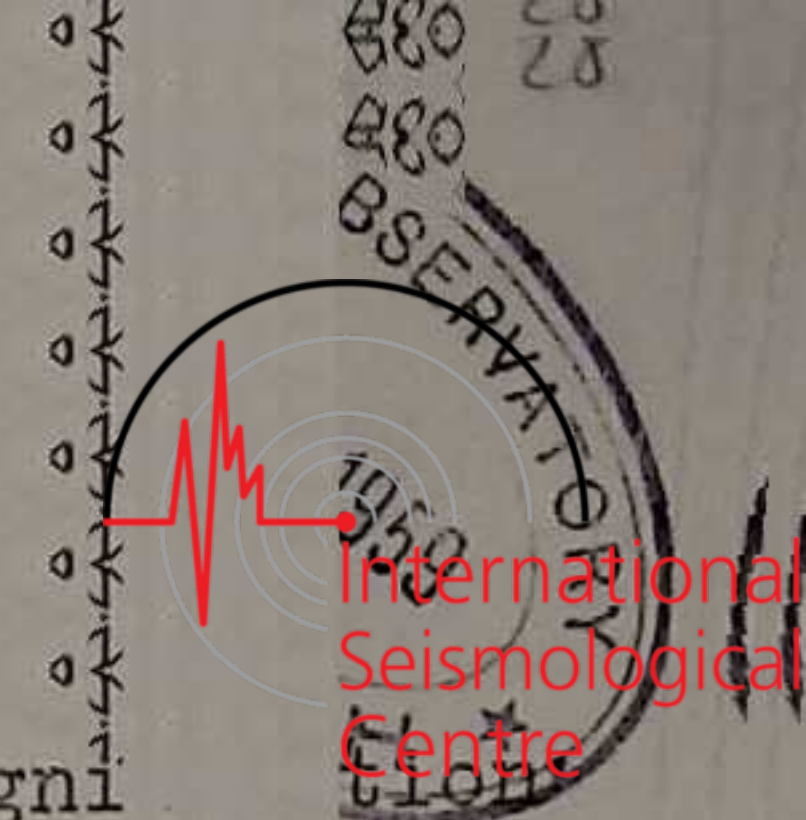
DURHAM UNIVERSITY OBSERVATORY, ENGLAND.

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

SEISMOLOGICAL BULLETIN FOR OCTOBER, 1958.

Instruments:- Milne-Shaw free period 12 sec, damping ratio 20:1, magnification 250, recording N and E component displacements.

Wilson-Lamison seismometer free period 1 sec, coupled to G.E. galvanometer free period 3.4 sec, recording vertical component of velocity.



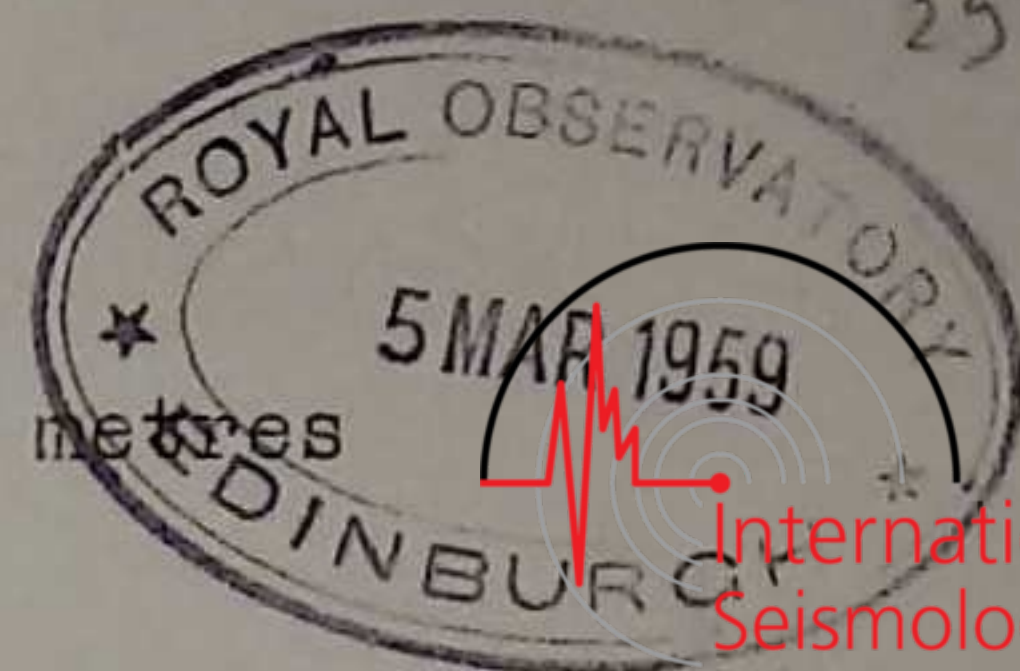
No.	Date	Phase and component	Time G.M.T.	Period sec.	Amplitude microns and direction	Epicentral distance	Notes
1	1	iPKPZ MN	09 49 38 11 03	20	+	163°	H 09 29 43 (USCGS)
2	1	ePZ	17 58 33			72°	H 17 47 15 (USCGS)
3	7	ePPE iSKKSZ esSE ME	12 44 46 51 47 13 01 28 13 50	20	+ 7	126°	H 12 23 46 (USCGS)
4	10	iPZ eSN	08 41 39 50 28		+	71°	H 08 30 17 .01 deep (USCGS)
5	11	iPE	02 11 39		-	71°	H 02 00 40 (USCGS)
6	12	ePZ iPPZ eSKSN eSE esSKSN esSE ME	15 31 01 34 25 41 01 41 13 42 53 43 01 16 18		-	86°	H 15 18 42 .04 deep (USCGS)
7	18	MN	10 13	14	3	29°	H 09 51 10 (Upsala)
8	19	iPKPZ iPKPZ	12 02 38 03 23		+ +	159°.5	H 11 42 42 (USCGS)
9	20	iPKPZ MN	01 31 45 02 07		-	111°	H 01 12 30 (USCGS)
10	22	MN	08 43			29°	H 08 21 11 (Upsala)
11	22-23	ePKPZ	00 02 17			139°.5	H 23 42 47 (USCGS)
12	23	iPZ iSN	15 50 28 56 33		- -	39°	H 15 43 00 (USCGS)
13	28	PZ iXEZ iSN iSKSN MN	10 56 59 57 06 11 05 37 07 04 11 23	20	- + + - 17	64°	H 10 46 27 (USCGS)
14	29	iPNZ iSE iSKSN iSSB MN	07 55 49 08 05 19 05 56 10 02 08 38	18	+ + + - - 15	74°	H 07 44 10 (USCGS)

20 February 1959.

DURHAM UNIVERSITY OBSERVATORY, ENGLAND.

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

SEISMOLOGICAL BULLETIN FOR NOVEMBER 1958



International
Seismological
Centre

Instruments:- Milne-Shaw free period 12 sec, damping ratio 20:1, magnification 250, recording N and E component displacements.
Wilson-Lamison seismometer free period 1 sec, coupled to G.E. galvanometer free period 3.4 sec, recording vertical component of velocity.

No.	Date	Phase and component	Time G.M.T.	Period sec.	Amplitude microns and direction	Epicentral distance	Notes
1	1	ePKPN ePPN MN	03 57 35 59 21 04 54	19	5	123° .5	H 03 38 36 (USCGS)
2	1	iPKPZ	12 35 17		+	143° .5	H 12 15 43 (USCGS)
3	1	iPKPZ iPPZ iSSN MN	12 36 09 39 12 58 29 13 36	20	+ - -	143° .5	H 12 16 36 (USCGS)
4	3	iPZ	14 42 08		+	64°	H 14 31 35 (USCGS)
5	4	ME	09 28	16		91°	(USCGS)
6	4-5	ME	00 09	21		145°	H 22 54 46 (USCGS)
7	6	iPNEZ iPPE iSZ ME MZ	23 10 02 13 11 19 56 23 41 23 48	30 20	+ 1000	77° .5	H 22 58 10 (USCGS)
8	7	iPZ	01 55 14		+	77° .5	H 01 42 56 (USCGS)
9	7	iPZ	01 57 33		+	77° .5	
10	7	iPZ	02 22 31		+	77° .5	
11	7	iPZ iPPZ iSZ eSKSN MN	05 11 52 14 14 21 29 21 59 05 52		- - +	77° .5	H 04 59 50 (USCGS)
12	7	iPZ	07 52 38		+	77° .5	H 07 40 36
13	7	iPZ	11 36 22		-	77° .5	H 11 24 19
14	8	iPZ iXNE SN XN MN	09 35 09 36 06 44 38 44 43 10 14	14	- - -	72° .5	H 09 23 52 (USCGS)
15	12	iPZ iSN iSKSN iSSN ME MN MZ	20 35 29 45 17 45 57 49 51 21 08 21 14 21 14	20 20	+ - + + 150 160	77° .5	H 20 23 32 (BCIS)

(CORRECTION ON THIS
READING IS ON OCTOBER 1959)



DURHAM UNIVERSITY OBSERVATORY, ENGLAND.

SEISMOLOGICAL BULLETIN FOR NOVEMBER 1958 sheet 2

No.	Date	Phase and component	Time G.M.T.	Period sec.	Amplitude and direction	microns	Epicentral distance	Notes
16	13	iPZ ME	04 16 39 04 55		-		77° .5	H 04 04 43 (BCIS)
17	14	iPZ ME	05 46 55 06 26		-		77° .5	H 05 34 53 (USCGS)
18	14	ePZ eSSN MN	14 07 12 24 40 14 58	30			118°	H 13 48 20 (USCGS)
19	15	iPZ iPZ iPPZ eSN	05 47 55 48 06 48 37 52 13		- - +		23° .5	H 05 42 42 (BCIS)
20	15	iPZ iSE ME	09 12 48 22 36 09 45	20	- - 2		77° .5	H 09 00 45 (USCGS)
21	16	iPZ	06 27 43		-		77° .5	H 06 15 30 (USCGS)
22	16	iPKPZ	18 22 05		+		145° .5	H 18 02 25 (USCGS)
23	19	ePZ eXNE	09 35 51 41 06				77° .5	H 09 23 45 (USCGS)
24	20	MN	06 28				72°	H 05 36 33 (USCGS)
25	20	iPZ iSN MN	14 29 57 39 49 15 08		+ +		78° .5	H 14 18 04 .01 deep (USCGS)
26	22	eSKSE ME	00 29 41 01 17				112° .5	H 00 04 20 (USCGS)
27	25	ePZ iSZ iXZ iXZ iXZ iXNZ	02 26 43 28 56 29 55 30 21 30 31 30 39		- - - + +		12°	H 02 23 54 (BCIS)
28	30	iPZ ME	01 45 34 03 30	17	- 2		36° .5	H 01 32 41 (USCGS)

20 February 1959.

DURHAM UNIVERSITY OBSERVATORY, ENGLAND.

Position:- 54°45'N 01°35'W, height above M.S.L. 103 metres

SEISMOLOGICAL BULLETIN FOR DECEMBER 1958

Instruments:- Milne-Shaw free period 12 sec, damping ratio 20:1, magnification 250, recording N and E component displacements.
Wilson-Lamison seismometer free period 1 sec, coupled to G.E. galvanometer free period 3.4 sec, recording vertical component of velocity.

No.	Date	Phase and component	Time G.M.T.	Period sec.	Amplitude microns and direction	Epicentral distance	Notes
1	1	ME	04 04	19		76° .5	H 03 21 17 (USCGS)
2	3	ME	10 47	15	5	92°	H 09 48 26 (USCGS)
3	6	iPZ	09 45 56		-	80°	H 09 33 45 (USCGS)
4	7	iPZ	01 22 18		-	90°	H 01 09 18 (USCGS)
5	7	iPZ	18 10 31		+	83°	H 17 58 08 (USCGS)
6	8	iPZ iXZ	12 20 24 20 54		- +	78°	H 12 08 23 (USCGS)
7	10	iPZ iPPZ eSE	03 52 40 54 31 59 52		- -	51°	H 03 43 33 (USCGS)
8	10	iPKPZ iPKPZ ipPKPZ ipPKPZ iPPZ ipPPZ iPPPZ iPPSN iXN ME	07 22 30 23 18 24 04 24 47 26 52 27 57 30 10 40 32 42 34 07 52		- - - - + - + - -	161°	H 07 02 59 .05 deep (USCGS)
9	10	iPZ ME	22 03 06 22 35		-	80°	H 21 49 20 (USCGS)
10	17	ME	16 30			87° .5	H 15 34 08 (USCGS)
11	21	ePZ eSSN iRgN MN	05 55 33 06 06 42 14 02 06 22	6 10	23 23	51°	H 05 46 26 (USCGS)
12	23	iPKPZ	03 49 44			149°	H 03 30 18 (USCGS)
13	23	ePZ	06 39 36			81°	
14	25	iPZ ME ME	08 24 27 09 12 09 22	25 20	+ 2 2	126° .5	H 08 05 33 (USCGS)





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SEISMOLOGICAL BULLETIN FOR DECEMBER 1958 sheet 2

No.	Date	Phase and component	Time G.M.T.	Period sec.	Amplitude and direction	microns	Epicentral distance	Notes
15	28	iPZ	05 44 56		-		61 ^o .5	H 05 34 36 (USCGS)
		iXZ	45 13		-			
		iPcPZ	45 39		-			
		iPPZ	47 19		-			
		MN	06 14					
16	31	iPKPZ	02 04 57		-		149 ^o	H 01 45 52 .06 deep (USCGS)

13th March, 1959.