

# Seismological Bulletin.

No. 1

Jan - Feb. 1927.

## STONYHURST COLLEGE OBSERVATORY

BLACKBURN, ENGLAND.

$\phi = 53^{\circ} 50' 40''$  N.     $\lambda = 2^{\circ} 28' 12''$  W.     $h = 116$  m.

Lithologic Foundation: Millstone Grit over Carboniferous Limestone Shales.    Time: Mean Greenwich, 0 or 24 = Midnight.

### INSTRUMENTS.

	MASS	COMP.	T <sub>0</sub>	ε	V	1" TILT
I Milne ... ..	1 Kg.	E-W				
II Milne-Shaw ...	1 lb.	E-W	12 s		150	26.2 mm

No.	Date	Phase	Time			Period	Ampl. A <sub>E</sub> μ	Δ km.	REMARKS
			h.	m.	s.				
1.	Jan. 17 <sup>th</sup>	eP(?) eL	22	13	-				Small; record disturbed by microseisms.
2	24 <sup>th</sup>	P. eS(?)	1	24	45			7700(?)	
3	24 <sup>th</sup>	S(?)	5	20	58				Epicentre: 59° N 230° E (Strasbourg) Very rapid oscillation.
4	Feb. 3 <sup>rd</sup>	eL	4	37	-				Small.
	(February	11 <sup>th</sup>	10h. 29m.	to	12 <sup>th</sup>	10h. 50m.			no record.)
5	14 <sup>th</sup>	eP eS L M	3	47	24			1950	Epicentre; Stolac (Herzegovina) 42° 30' N, 15° E
	(February	15 <sup>th</sup>	10h. 21 m.	to	16 <sup>th</sup>	10h. 27 m.			record missing)
67	28 <sup>th</sup>	e eL M	14	33	47				Small.

# Seismological Bulletin.

 No. 2

Mar - May 1927.

## STONYHURST COLLEGE OBSERVATORY

BLACKBURN, ENGLAND.

No.	Date	Phase	Time			Period s.	Ampl. $A_E$ $\mu$	$\Delta$ km.	REMARKS
			h.	m.	s.				
8	Mar 3 <sup>rd</sup>	P (?) eS (?) eL	1	25	05 18 -			Record very disturbed 9,000 (?) by wind.	
9	7 <sup>th</sup>	P PR <sub>1</sub> PR <sub>2</sub> S eSR (?) eL M	9	40	04 30 01 29 11 - 12		9,300	Epicentre: 35° 5' N } 137° 5' E }	
10	12 <sup>th</sup>	eL (?)	20	42	-			Very small.	
11	21 <sup>st</sup>	PR <sub>1</sub> ? S?	15	24	06 13			Small; phases uncertain	
12	25 <sup>th</sup>	eL?	4	00	-			Small. Record very disturbed by wind.	
April 5 <sup>th</sup> 10h 45m to 7 <sup>th</sup> 10h 22m - no record.									
13	14 <sup>th</sup>	eP (?) eS F	6	37	57 57 -			Phases ill defined. Two quakes?	
April 17 <sup>th</sup> 10h 41m to 19 <sup>th</sup> 10h 16m - no record.									
14	30 <sup>th</sup>	eS (?) eL	14	17	- -			Small and ill defined.	
May 3 <sup>rd</sup> 10h 20m to 4 <sup>th</sup> 10h 27m - no record									
" 5 <sup>th</sup> 10h 46m to 6 <sup>th</sup> 10h 22m - do.									
15	9 <sup>th</sup>	eP PR <sub>2</sub> ? S	10	40	47 28 55		5520	Epicentre 22° 5' N }	

# Seismological Bulletin.

No. 3

May, June 1927.

## STONYHURST COLLEGE OBSERVATORY

BLACKBURN, ENGLAND.

No.	Date	Phase	Time			Period s.	Ampl. $\frac{A}{E}$ $\mu$	$\Delta$ km.	REMARKS
			h.	m.	s.				
16	May 13 <sup>th</sup>	eP eS eL	0	28	17 (2)	(Exact time of P missed in timing eclipse)		2200 (2)	Very Small.
17	13 <sup>th</sup>	eP S (2)	20	20	55 39 06			7700 (1)	Phases very ill defined Very small
MAY 14 <sup>th</sup> 10h 48m to 15 <sup>th</sup> 10h 17m			no record.						
18	22 <sup>nd</sup>	P PR <sub>1</sub> PR <sub>2</sub> S S <sub>1</sub> ? eL <sub>1</sub> M F	22	45	45 46 42 48 15 (ill defined?) 52 35 25 05 - 13 07 2 50 -			7800	Epicentre: 37.5 N } approx. 102° E }
19	June 3 <sup>rd</sup>	eP (2) S (2)	7	51	02 15				Phases ill defined
20	5 <sup>th</sup>	eP (2) L	8	50	09 40 -				Very small
JUNE 9 <sup>th</sup> 10h 27m to 10 <sup>th</sup> 10h 30m			no record.						
JUNE 20 <sup>th</sup> 10h 28m to 22 <sup>nd</sup> 10h 18m			no record.						
21	26 <sup>th</sup>	S? M	11	30	45 20 47				Local disturbances masked phases.
APPENDUM.									
0	Feb. 16 <sup>th</sup>	P PR <sub>1</sub> PR <sub>2</sub> eS eL <sub>1</sub> M F	1	47	16 50 26 51 12 57 20 2 11 - 2 25 45 3 15 -			8720	Epicentre: 48° N } approx. 152° E }
NOTE: (i) Where there is an entry "no record" this is due to failure of motor clock. (ii) Coordinates of epicentres, where given, are due to Strasbourg.									

E. D. G. S. J.



# Seismological Bulletin.

 No. 4

JULY 1927

## STONYHURST COLLEGE OBSERVATORY

### BLACKBURN, ENGLAND.

No.	Date	Phase	Time			Period s.	Ampl. A E μ	Δ km.	REMARKS
			h.	m.	s.				
22	1 <sup>st</sup>	eP eS eL M F	8	24	19 30 51 20 0 -			2670	
23	5 <sup>th</sup>	e	9	15	-				Spurious?
24	6 <sup>th</sup>	eL	0	14	-				Very small; early phase 10 <sup>th</sup> macro.
25	7 <sup>th</sup>	eP S F	20	15	50 15 00 -			5800	Small.
JULY 5 <sup>th</sup> 10h 32m to 9 <sup>th</sup> 10h 50m - no record. (Motor-clock inoperative)									
26	11 <sup>th</sup>	P eS L	15	10	55 28 -				(Exact time of P lost in timing eclipse) Small. Epientic - Palestine.
JULY 12 <sup>th</sup> 10h 45m to 15 <sup>th</sup> 10h 20m - no record. (Motor clock inoperative)									
JULY 14 <sup>th</sup> 10h 10m to 21 <sup>st</sup> 10h 50m - no record & repairs to motor-clock etc.)									
27	22 <sup>nd</sup>	P S L M <sub>1</sub> M <sub>2</sub> F	4	3	17 48 - 29 04 00 -			4920	Moderate.
28	23 <sup>rd</sup>	eP eS eL F	20	26	7 40 - 56 -			4770	Small.
29	23 <sup>rd</sup>	eP eS eL F	22	45	39 14 - 44 -				Same epicentre?
30	25 <sup>th</sup>	e eL	26	42	53 24				Very small
31	25 <sup>th</sup>	eP S L M P	16	39	00 08 - 17 00 -			7550	Small.

5

No. ....

**STONYHURST COLLEGE OBSERVATORY**  
**BLACKBURN, ENGLAND.**

No.	Date	Phase	Time			Period	Ampl. A <sub>E</sub> μ	Δ km.	REMARKS
			h.	m.	s.				
32	29 <sup>th</sup>	eP S (1) eL F	h.	m.	s.			9,000?	
	31 <sup>st</sup> 10.14	to	AUGUST 1 <sup>st</sup>			10.12 - no record		(Moto-clock inoperative)	
33	1 <sup>st</sup>	eL	17	14	-			(Probably earlier; record unusable owing to entanglement)	
34	1 <sup>st</sup>	eL F	19	7	- 19 22 -			Very small	
35	5 <sup>th</sup>	eP PR <sub>1</sub> PR <sub>2</sub> ePR <sub>3</sub> LS SR <sub>1</sub> I M <sub>1</sub> M <sub>2</sub> M <sub>3</sub> W <sub>2</sub>	21	25	28 28 30 30 30 32 13 35 44 41 14 51 - 55 39 22 06 14 09 16 23 39			9,000	
36	6 <sup>th</sup>	e (P?) i (S?) F	0	25	34 34 19 2 07				
	AUG 8 <sup>th</sup> 10h 18m	to	10 <sup>th</sup> 10h 27m.			- no record		(motor-clock inoperative)	
37	10 <sup>th</sup>	Quake about 11h.53m; timing eclipses inoperative.							
38	12 <sup>th</sup>	e e	10	43	27 56 50			Small	
39	15 <sup>th</sup>	e	0	48	-				
40	15 <sup>th</sup>	LS SR? i M <sub>1</sub> M <sub>2</sub> M <sub>3</sub> M <sub>4</sub> F	19	51	12 57 01 20 03 44 20 39 24 33 24 22 31 56 22 50 -			Two quakes?	
	AUG 20 <sup>th</sup> 10h 20m	to	23 <sup>rd</sup> 10h 54m.			no record		(motor clock inoperative)	
41	24	eL	9	40	-			very small.	
42	25 <sup>th</sup>	Quake about 18h.40m; timing eclipses inoperative.							

*E. H. ...*

# STONYHURST COLLEGE OBSERVATORY.

September 1927.

We beg to acknowledge, with thanks, the receipt of the following seismological bulletins, during the month of September.

<u>Stations</u>	<u>Date of Bulletin</u>	<u>Received.</u>
		Sept. 2 <sup>nd</sup>
Gartuja	May 1927	"
Strasbourg	July 1927	"
Paris (Parc S' Mau)	July 1927	Sept. 14 <sup>th</sup>
San Fernando	April, May, June 1927	"
Barcelona	Sept 1926 - April 1927 incl.	"
Tiflis	January 1927	"
Spanish Seismological Service	March, April 1927	"
La Paz (Bolivia)	March, April, May 1927	Sept 15 <sup>th</sup>
Pulkovo	March 1927	Sept. 17 <sup>th</sup>
Leningrad	January 1927	"
Sverdlovsk	February 1927	"
Kučino	February, March 1927	"
Makéevka	do do	"
Tachkent	February 1927	"
Baka.	February 1927	"
Kew	August 1927	Sept. 19 <sup>th</sup>
Manila P.I	May 1927	Sept 22 <sup>nd</sup>
Ottawa	August 1927	"
<del>Zi-Ka-Wei</del>	June 1927	Sept. 26 <sup>th</sup>
Hong Kong		Sept. 27 <sup>th</sup>
Gartuja	June, July, 1927	

# Seismological Bulletin.

No. 6

September 1927

## STONYHURST COLLEGE OBSERVATORY

BLACKBURN, ENGLAND.

$\phi=53^{\circ} 50' 40''$  N.     $\lambda=2^{\circ} 28' 12''$  W.     $h=116$ m.

Lithologic Foundation : Millstone Grit over Carboniferous Limestone Shales.    Time : Mean Greenwich, 0 or 24=Midnight.

### INSTRUMENTS.

	MASS	COMP.	T <sub>0</sub>	ε	V	1" TILT
I Milne ... ..	1 Kg.	E-W				
II Milne-Shaw ...	1 lb.	E-W	12 sec	20:1	150	262 mm.

No.	Date	Phase	Time			Period s.	Ampl. A <sub>E</sub> μ	Δ km.	REMARKS	
			h.	m.	s.					
43	#1	eL <sub>1</sub> F	15	15	-				very small.	
			16	50						
44	3	P eP <sub>R1</sub> eP <sub>R2</sub> S L M <sub>1</sub> M <sub>2</sub> P	19	57	12					Epicentre: Atlantic Ocean 12° N } approx. 45° W }
				59	28					
			20	00	27			6140		
				04	54					
				10.5						
				15	47	24	97			
				19	30	24	68			
			22	58	-					
45	4	e	10	-	-				Long waves recorded at intervals throughout the period - all very small.	
			24	-	-					
46	6	eL	07	26	-					
Sept. 6 <sup>th</sup>	10h. 22m to 7 <sup>th</sup>		9h. 50m			- no record - motor-lock inoperative				
47	7	eL <sub>1</sub> eL M P	21	22.5					very small.	
				37.0						
				49.3						
			22	-	-					
48	8	eP? eS? M	9	00	44				Difficult to read.	
				02	31			990?		
				04	31	14				
Sept. 9 <sup>th</sup>	12h 00m to 11 <sup>th</sup>		10h. 30m			record defective.				
49	11	P eP <sub>R1</sub> eP <sub>R2</sub> S M <sub>1</sub> M <sub>2</sub> M <sub>3</sub>	22	21	25					Epicentre: 45° N 34.5 E
				20	01					
				22	11					
				25	46			2840		
				35	10	17	302			
				37	30	12	93			
				38	47	12	62			

# Seismological Bulletin.

 No. 7

September 1927.

## STONYHURST COLLEGE OBSERVATORY

BLACKBURN, ENGLAND.

No.	Date	Phase	Time			Period s.	Ampl. $\frac{A}{E} \times$ $\mu$	$\Delta$ km.	REMARKS
			h.	m.	s.				
49 (contd.)	11	M <sub>4</sub>	22	39	47	12	62		Destructive in the Crimea
		M <sub>5</sub>		41	36	15	58		
		M <sub>6</sub>		46	15	17	45		
		M <sub>7</sub>		48	11	15	37		
		M <sub>8</sub>		49	12	13	28		
		M <sub>9</sub>		50	41	12	32		
		F	- masked by			next			
50	11-12	eS?	23	54	53			2900? (approx)	Probably same epicentre as No. 49. Difficult to read.
		eS <sub>1</sub> ?		56	14				
		L <sub>1</sub>	00	01	44				
		F		45	-				
51	12	eL	01	13	-			Probably W <sub>2</sub> of No. 49.	
52	12	eL	01	38	-			W <sub>3</sub> of No. 49?	
53	12	e	02	42	-				
54	12	eP	03	25	41			2910	Epicentre: in the Crimea
		eS		30	07				
		eL		32.7					
		M <sub>1</sub>		38	01	15	25		
		M <sub>2</sub>		39	26	15	24		
		M <sub>3</sub>		41	16	12	18		
		M <sub>4</sub>		42	51	10	14		
		M <sub>5</sub>		44	33	12	14		
		M <sub>6</sub>		46	35	11	9		
F	04	30	-						
55	12	P?	06	43	41				
		L		50.3					
		F	07	25					
56	12	eL	13	00	-				
		M		17	-				
57	12	eP?	14	29	34			2780?	Epicentre: in the Crimea
		eS		33	51				
		L	masked.						
		M <sub>1</sub>		41	43	15	28		
		M <sub>2</sub>		44	36	12	10		
		F	masked by			local	disturbances.		
58	13	eL	11	36				very small.	
		eL	11	42					
		eL	11	51					
		F	12	30					



**STONYHURST COLLEGE OBSERVATORY**  
*near*  
**BLACKBURN, ENGLAND.**

No.	Date	Phase	Time			Period s.	Ampl. =	Δ km.	REMARKS
			h.	m.	s.		$\mu$ A <sub>E</sub>		
59	13	eL <sub>1</sub> P	21	59	-			very small.	
			23	25	-				
60	14	eL <sub>1</sub> P	02	50	-			very small.	
			03	30	-				
61	17	e	01	07	-			Spurious?	
62	23	eP? S SR <sub>1</sub> L M P	14	12	29			Difficult to read owing to local disturbances etc.	
				19	23				
				25	02		5320?		
				27.1					
				29	58	15	42		
			masked by local disturbances						
63	24	P? L <sub>1</sub> M P	06	24	09			Difficult to read.	
				31	-				
				33	07	14	16		
			masked by local disturbances						
<p>NOTE: Coordinates of epicentres where given are due to Strasbourg.</p> <p>NOTE: In the column marked "Amplitude", absolute values only are given, irrespective of direction (E or W).</p>									

E. M. Thomas S. J.  
 Director.

Stonyhurst College Observatory  
nr. Blackburn  
England.

October 5<sup>th</sup> 1927.

Owing to various circumstances, it has been found impossible, up to this, to measure any of the seismographical records of this station during the years 1925, 1926, except those of violent earthquakes.

The work has now been taken in hand, and it is hoped that before long, the complete bulletins for these two years will be published, and forwarded to those observatories to which our bulletins are usually sent.

E. D. Connor S. J.

Director.

# Seismological Bulletin.

No. 9

October 1927

## STONYHURST COLLEGE OBSERVATORY

No. BLACKBURN, ENGLAND.

No.	Date	Phase	Time			Period s.	Ampl. $\frac{A}{E}$ $\mu$	$\Delta$ km.	REMARKS
			h.	m.	s.				
64	2	e L M F	05	08	50 35 45 -	18	13	Long waves small, but quite well marked.	
65	4	eL eL M F	06	28	- 55 20 50				
	4/5								
66	8	eP? e eS? eSR <sub>1</sub> ?	19	52	15 46 16 14		2540?	Rapid vibrations, and very small. Phases very conjectural.	
67	10	eL	20	50	-			Very Small.	
68	12	eL M F	07	13	- 18 30			Very small.	
69	13	eL	11	50	-			Very small.	
70	17	e F	22	50	- 30-?			Record disturbed by heavy micros: no phases distinguishable.	
71	24	eP eP <sub>2</sub> S eSR <sub>2</sub> L M <sub>1</sub> M <sub>2</sub> M <sub>3</sub> M <sub>4</sub> M <sub>5</sub> M <sub>6</sub> M <sub>7</sub> M <sub>8</sub> M <sub>9</sub> M <sub>10</sub>	16	10	20 13 47 52 04 43 49 29 14 48 55 55 11 22 21	20 14 26 18 15(?) 18 18 16 17 14	214 51 110 52 68(?) 87 71 54 50 23	(62°2) 6020	Epicertric in or near Alaska: exact position unknown. The data from this station do not seem to accord well with those of Kew or Oxford. Data from other stations at present unknown. The time of M <sub>1</sub> seems to point to a greater value of $\Delta$ (7200) Calculated time of origin: 15 59 57.

**STONYHURST COLLEGE OBSERVATORY**

nr BLACKBURN, ENGLAND.

No.	Date	Phase	Time			Period s.	Ampl. A <sub>E</sub> μ	Δ km.	REMARKS
			h.	m.	s.				
71 (cont'd)	24 <sup>th</sup> .	M <sub>11</sub>	16	58	47	13	20		The phases noted from 18h 37m to 18h 55m were all long waves (periods 16-20 sec). A group of long waves starting at 18h 55m. continued until 19h 12m., the amplitude first increasing slightly, and then decreasing slowly. There is scarcely sufficient evidence to determine whether or not these phases are due to a second shock.
		M <sub>12</sub>	17	01	21	13	28		
		M <sub>13</sub>		03	32	15	35		
		M <sub>14</sub>		07	28	14	19		
		M <sub>15</sub>		10	53	14	31		
		M <sub>16</sub>		14	05	17	29		
		M <sub>17</sub>		15	28	15	24		
		M <sub>18</sub>		18	12	14	24		
		M <sub>19</sub>		19	13	16	32		
		e (W <sub>2</sub> ?)	18	37	-				
		e		42	-				
		e		46	-				
		e		50	-				
e		55	-						
e (W <sub>3</sub> ?)	19	54	-						
F	20	25	-						

Note: In the column marked "Amplitude", absolute values only are given, irrespective of direction (E. or W.)

Note: Throughout the month, many records or parts of records are missing owing to failure of the motor-clock. To save space, this has not, as has hitherto been the practice, been entered where it occurred.

E.D. Connor S. J.

Director.

# STONYHURST COLLEGE OBSERVATORY.

October 1927.

We beg to acknowledge, with thanks, the receipt of the following bulletins during the month of October:

<u>STATIONS</u>	<u>DATE OF BULLETIN</u>	<u>RECEIVED</u>
Strasbourg	August 1927	Oct. 3 <sup>rd</sup>
Paris (Parc St. Maur)	August 1927	"
U.S. Coast + Geodetic } Surrey }	Oct. - Dec. 1925	Oct. 10 <sup>th</sup>
Reykjavik	May 1927 - July 1927	Oct. 13 <sup>th</sup>
Tacubaya	Jan - Dec. 1925	Oct. 14 <sup>th</sup>
Georgetown, U.S.A (Despatches)		Oct. 15 <sup>th</sup>
Zi-Ka-Wei	Mar - July 1927	"
Kew	Sept. 1927	Oct. 17 <sup>th</sup>
Ottawa	" "	"
Sverdlovsk	Mar 1927	Oct. 18 <sup>th</sup>
Irkutsk	Dec. 1926	"
Baku	Mar 1927	"
Hong Kong	June 1927	"
San Fernando	July - August - Sept. 1927	Oct. 19 <sup>th</sup>
Moncalieri	Jan - Dec 1926	"
Fordham	July 15 <sup>th</sup> - Aug 31 <sup>st</sup> 1927	Oct. 21 <sup>st</sup>
Hong Kong	July 1927	Oct. 27 <sup>th</sup>
Strasbourg	Sept. 1927	Oct. 28 <sup>th</sup>
Paris (Parc St. Maur)	Sept. 1927	"
Manila P.I.	June 1927	Oct. 31 <sup>st</sup>

# Seismological Bulletin.

 No. 11

November 1927.

## STONYHURST COLLEGE OBSERVATORY

nr. BLACKBURN, ENGLAND.

No.	Date	Phase	Time			Period s.	Ampl. $A_E$ $\mu$	$\Delta$ km.	REMARKS
			h.	m.	s.				
72	4	LP	17	02	52			8,220	CLOCK ERROR UNCERTAIN TIMES ARE UNCORRECTED  Epicentre: California.
		LP <sub>1</sub> ?		03	20				
		LP <sub>2</sub>		05	50				
		PR <sub>1</sub> ?		07	52				
		PR <sub>2</sub>		08	51				
		S		12	32				
		S <sub>c</sub> S?		13	37				
		i(SR <sub>1</sub> ?)		17	30				
		SR <sub>2</sub>		21	09				
		L		27	5				
		M <sub>1</sub>		32	46	22	-114		
		M <sub>2</sub>		34	08	19	-108		
		M <sub>3</sub>		36	20	18	+121		
		M <sub>4</sub>		40	18	16	+79		
		M <sub>5</sub>		44	01	16	+55		
eW <sub>2</sub>		16	23	-					
F		17	30	-					
A/10	Nov. 4 <sup>th</sup>		1500gmt to 10 <sup>th</sup> 1500gmt - no records - repairs to motor-clock.						
73	10	eL <sub>1</sub> M	21	30	-			Very small.	
74	11	e	02	33	27			Small No distinct phases.	
		eL		43	-				
		M		49	5				
		F	04	40	-				
75	11	e	12	42	21			Small.	
		e		48	04				
		e		55	36				
		M		59	16				
		F	13	20	-				
76	12	e	09	38	50			Very small.	
		e		43	50				
		F	11	30	-				
77	12	e	14	58	16			Small.	
		e		59	44				
		e	15	08	36				
		F	17	00	-				

# Seismological Bulletin.

 No. 12

November 1927

## STONYHURST COLLEGE OBSERVATORY

nr. BLACKBURN, ENGLAND.

No.	Date	Phase	Time			Period s.	Ampl. $\Delta_E$ $\mu$	$\Delta$ km.	REMARKS
			h.	m.	s.				
78	14	P? S L M <sub>1</sub> M <sub>2</sub> F	00	21	14 28 29 36.7 49 11 51 02 02 14 -	13 13	+16 +10	5,690?	Moderate, Time of origin 00h 12m 03s (?)
79	14	P S SR <sub>1</sub> L M F	missing 05	12	53 16 51 20 - 33 03 06 50 -	13	-40	5,720?	Moderate, Probably a repetition of 78, Time of origin 05h 55m 59?
80	14	P? S L M <sub>1</sub> M <sub>2</sub> M <sub>3</sub> M <sub>4</sub> PPSS' W <sub>2</sub> F	07	33	14 44 16 08 02.7 15 51 18 26 20 41 26 49 32 45 09 36 - 10 00 -	29 18 17 15	+44 -26 +24 +9	10,100?	Time of origin 07h. 20m 07s ?
81	14	L L L L M F	15	30	02 36 22 46 39 56.8 16 04 19 16 40				Small.
82	14 15	L F	21	31	- 00 40 -				Very small.
83	15	L (P?) L (S?) L F	08	50	29 52 57 54 22 09 50 -			6,420?	Very small and difficult to read.
84	15	L M F	22	13	50 25 41 23 50				Small.

# STONYHURST COLLEGE OBSERVATORY

November 1927

We beg to acknowledge with thanks the receipt of the following seismological bulletins during the month of November

<u>STATION</u>	<u>BULLETIN</u>	<u>RECEIVED</u>
Hamburg	July-Sept 1927	3 <sup>rd</sup> .
La Paz		4 <sup>th</sup>
Manila	July 1927	15 <sup>th</sup>
Jesuit Seism Assoc'	Oct 24 <sup>th</sup>	11 <sup>th</sup>
Jesuit Seism Assoc	Nov 4 <sup>th</sup>	16 <sup>th</sup>
St Louis Univ'	Oct 24 <sup>th</sup> -27 <sup>th</sup>	"
New	Oct 1927	17 <sup>th</sup>
Berkeley & Lick	Oct 1926 - Mar 1927	"
U.S. Geol & Survey	Jan - Mar 1926	17 <sup>th</sup>
Ottawa	Oct 1927	20 <sup>th</sup>
Georgetown	Sept. - Oct 1927 (despatches)	20 <sup>th</sup>
Hong Kong	Aug. 1927	22 <sup>nd</sup>
Strasbourg.	Oct 1927	24 <sup>th</sup>
Paris St Maur	" "	"
Jesuit Seism Assoc	Nov 4 <sup>th</sup> - 5 <sup>th</sup>	26 <sup>th</sup>
Toronto	Oct. 27 <sup>th</sup>	28 <sup>th</sup>



# Seismological Bulletin.

 No. 13

November 1927

## STONYHURST COLLEGE OBSERVATORY

nr BLACKBURN, ENGLAND.

No.	Date	Phase	Time			Period s.	Ampl. A <sub>E</sub> μ	Δ km.	REMARKS
			h.	m.	s.				
85	16	e	21	28	41				
		S?		34	51				
		SR <sub>1</sub> ?		41	22				
		SR <sub>2</sub> ?		44	56				
		L		56	5				
		M <sub>1</sub>	22	04	03	40	-77		
		M <sub>2</sub>		14	19	27	+50		
		e	23	18	5				
		e		21	5	23			
		e		27		22			
		F		56					
	19/20	10h. 30m.	19 <sup>th</sup>	15	10h. 20m	20 <sup>th</sup>		No record.	
86	21	e (P?)	23	33	08				
		i		39	20				
		e (S?)		42	43				
		L		48	11				
		L		57	1				
		M <sub>1</sub>	00	05	36	38	-90		
		M <sub>2</sub>		14	46	23	+76		
		M <sub>3</sub>		17	47	18	+37		
	22	F	02	10	-				
87	26	L (P?)	13	17	25				
		L		18	05			1200?	Small,
		i (S?)		19	31				
		F		14	00	-			

**ERRATA.**

- (i) Quake no 28, (July 25<sup>th</sup>) - For Δ = 4770 read Δ = 5080.
- (ii) Quake no. 49 (Sept. 11<sup>th</sup>) - For P<sub>2</sub>, 22 20 01 read P<sub>2</sub>, 22 22 01.
- (iii) Quake no 79 (Nov. 14<sup>th</sup>) - For Time of origin 05h 55m 59s, read 04h 56m 22s.

For E.D. O'CONNOR S.J.  
Director.

D.R. W.

# Seismological Bulletin.

 No. 14

December 1927

## STONYHURST COLLEGE OBSERVATORY

BLACKBURN, ENGLAND.

No.	Date	Phase	Time			Period s.	Ampl.	$\Delta$ km.	REMARKS
			h.	m.	s.		$\mu$		
88.	Dec. 1.	e (S!) eL F.	05.	06.	17. 30 - 06. 10 -			Small phases ill-defined.	
89	1.	e e F.	09.	58.	27 07 05 -			Small.	
	1-2.	No	Record.						
90.	8	e e eL F.	15.	07.	04 45 15 18. -			Very small.	
91.	9	e F	17.	36.	20 43 -			Very small & confused by micros.	
<p><u>Note.</u> Very heavy micros at times during the month - notably 4<sup>th</sup> to 10<sup>th</sup>, 18<sup>th</sup> - 20<sup>th</sup>; 23<sup>rd</sup> or 26<sup>th</sup>.</p>									
92	28	e S L M F.	18.	31.	43 41.00 52 - 19. 6 - 21.20 - (ca).	18	91	7930 (Kamtschatka)	

J. P. Rowland S. J.  
Observer.