

OTTAWA

No.

Earthquake Station, Dominion Astronomical Observatory

LATITUDE 45° 23' 38", LONGITUDE 75° 42' 57" or 5^h 02^m 51.8 W. Greenwich, ALTITUDE 83m.

International
Seismological
Centre

TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From Jan. 1st to Jan. 31st, 1914 No. 1

No.	DATE	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE	REMARKS.
					A_E	A_N	A_Z		
	1914								
			h. m. s.	s.	μ	μ	μ	km.	
467	Jan. 20	e	12-22						
		e L	12-36	30					
		L	12-41	26					
		F	13-00						
					Time somewhat uncertain, electric contact failed at time for recording minutes. Time interpolated.				
468	" 30	1 P _N	3-48-14	3				8750	
		PR _{1E} ?	3-52-00						
		1 SE	3-58-12	5					
		S _N	3-58-15	14					
				2	superposed				
		e L _E	4-11	40					
		e L _N	4-13	26					
		M _N	4-25.8	20		45			
		L	4-30	18					
			to	to					
			5-00	15					
		F	5-59						
									E shows no distinct maximum.
469	" 30	P _N ?	7-57-50	4				9000?	
		S _N ?	8-08-00	6					
		L _N	8-23-00	20					
		L _N	8-30	16					
		F?	9-00						
									E is masked by micro-seisms.

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TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From February 1st

to February 28, 1914 No. 2

No.	DATE 1914	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE	REMARKS.
					A _E	A _N	A _Z		
470	Feb. 7	P NE	23-04-03	3	μ	μ	μ	km.	Storm
		P NE	23-10-10	3					sways
		P NE	23-13-55	3					observ-
		L NE	23-19.1	17					vatory
		L NE	23-20.3	17					nausea
		P NE	23-25						N. Also
									micro-
									mark
471	Feb. 10	P NE	16-30-04	2				4150	Dist
		S NE	16-35-59						
		S NE	16-36-00						
		S NE	16-41.0	20					
		L	16-45.10	28 10					
		L	16-48	15					
		P NE	16-45.5	18	20				
		P NE	17-08						
472	Feb. 10	P	18-30-59.5	.5	15	20		200	Local
		M P	18-31-03.8		28	30			quake.
		S NE	18-31-11.8						Felt
		S NE	18-31-13.0						over
		P	18-40						500,
		P V	18-31-00	.5					000 sq.
		S V	18-31-12.3	1					km.
		M P	18-31-13.7	1					
		P	18-38						
473	Feb. 14	P NE	9-34-14.8	1				225	Local
			continued to						quake.
			29.2	1					
		S NE	9-34-39.0	3					
		P NE	9-37						
474	Feb. 28	e P N	5-08-22	2				2500	
		i P NE	5-08-36	3					
		S NE	5-12-52						
		S NE	5-13-00	10					
		e LN	5-16.5	20					
		e LN	5-16.7	20					
		M NE	5-17.5		100				
		M N	5-20	12		25			
		F	6-15						

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TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From

March 1st

to

March 18th, 1914

No. 3

No.	DATE	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE	REMARKS.
					A_E	A_N	A_z		
	1914		h. m. s.	s.	μ	μ	μ	km.	
475	Mon. 6	PN?	19-13-22					10,000?	Small
		PE?	19-13-26						micro-
		PNE?	19-14-30						seisms
		SE	19-25-33						mask
		SN	19-25-36						P.
		eLN	19-42.0	40					
		eLE	19-42.5	40					
		L	19-52	18					
		F	20-15						
476	Mon 13	PN	15-34-46	2				3450	
		PR?	15-35-17	2					
		S	15-40-00	5 to 7					
		L	15-41.4	12					
		F	16-00						
477	Mon 14	PN	20-12-24					10200	Report-
		PR?	20-16-46	2					ed in
		SE	20-23-26						Japan.
		SN	20-23-35	10					
		LE	20-44.0						
		LN	20-44.2	30					
		L	20-47	20					
		L	20-55	18					
		L	21-02	16					
		F	21-15						
478	Mon. 18	PN?	4-31-20					7550?	
		SE?	4-40-16	9					
		SN?	4-40-18	4					
		eLN?	4-55.2	20					
		L	4-56.7	20					
		L	5-01 to	15					
			5-17						
		F	5-40						

Handwritten signature: Otto Kohn

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TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From

Mar. 18

Mar. 27th, 1914

No. 4

No.	DATE 1914	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE	REMARKS.
					A_E	A_N	A_Z		
479	Mar. 18	PN?	6-28-46	s.	μ	μ	μ	7400 ^{km}	
		SNE	6-37-36						
		L	6-54	20					
		L	6-56	16					
		L	7-04 to	16 to					
			7-11	14					
		F	7-29						
480	Mar. 21	PN	9-23-26					4300	P midst
		PE	9-23-30						micro-
		SE	9-29-32						seisms
		SN	9-29-36						uncer-
		SR _{3N} ?	9-33.0	10 ³					tain
		SR _{3E} ?	9-33.7	10					
		eLN	9-35.2	40					
		LN	9-37	24					
		F	9-52						
481	Mar. 21	eLN	19-52	20					
		L	19-59	16					
		F	20-05						
482	Mar. 27	PE?	1-15-44					6200	
		PN	1-15-52						
		eLN	1-32.2	22					
		eLE	1-32.6	20					
		L	1-35 to	16 to					
			1-53	14					
		F	2-00						

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INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From

Mar. 28

to Mar. 31, 1914

No. 5

No.	DATE 1914	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE	REMARKS
					A_E	A_N	A_Z		
			h. m. s.	s.	μ	μ	μ	km.	
483	Mar. 28	PN PE F	1-57-32 1-57-33 2-01	3 3					
484	Mar. 28	eLE L eLN LE LE LN F	11-38.3 11-44 11-46 11-49 11-51 11-56 12-05	40 20 60 18 15 40					
485	Mar. 30	ePN ePE iPN iPE PH, N SE SN eL M L F	0-47-46 0-47-48 0-47-50 0-47-51 0-48-49 0-53-24 0-53-25 0-57.4 1-03.3 1-15 to 2-25 3-00	 8 40 20 14 to 12	160	100		3800	

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TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From

Apl.1st

to

Apl.11, 1914.

No.6

No.	DATE 1914	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE	REMARKS.
					A_E	A_N	A_z		
486	Apl.9	e P E?	4-05-34	s.	μ	μ	μ	9600	
		SN?	4-15-36						
		SE	4-16-15	6					
		e L N?	4-23.2	24					
		LE	4-32.5	27					
		L	4-36	20					
		L	4-44	17					
		LE	4-52 to						
			57	15					
		LE	5-00	13					
		F	5-05						
487	Apl.11	e P N?	16-41-09					12000?	
		e P E?	16-43-36						
		P R ₂ E?	16-50-35						
		LN	16-51-08						
		SE?	16-56-07	10					
		SN?	16-56-09						
		LNE	17-16	14-10					
		LNE	17-27	13-16					
		LE	17-31	24					
		L	17-40	17					
		L	17-53	16					
		L	18-09	16					
		Merges into other quake							
488	Apl.11	PN	18-04-06					6100	
		PE	18-04-08						
		SN	18-11-46						
		SE	18-11-51						
		LE	18-20.2	16					
		LN	18-20.7	16					
		LE	18-25	15					
		LN	18-27	15					
		L	18-32	24					
		L	18-40	22					
		LE	18-45	19					
		F	19-05						

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Seismological
Centre

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INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From Apl. 12

to Apl. 30, 1914.

No. 7

No.	DATE 1914	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE	REMARKS.
					A_E	A_N	A_Z		
489	Apl. 20	1 PN	13-37-38.5	2				4450	
		PE	13-37-40	s.	μ	μ	μ	km.	
		1N	13-39-15						
		SE	13-43-51	7					
		SN	13-43-54	10					
		ME	13-43-56	7	19				
		MN	13-43-58	10		10			
		s R, E	13-46-32	20					
		e L E	13-49.4	44					
		e L N	13-49.7	40					
		L	13-55	20-16					
		L	13-58	14-13					
		L	14-05	13					
		L	14-31 to						
			14-42	13					
		F	15-20						
490	Apl. 24	e P	8-45-52					3500	
		SN	8-51-07						
		SE	8-51-13						
		LN ?	8-53	9					
		LE	8-53.3	28					
		F	9-15						
491	Apl. 29	PE	4-13-32	2				1730	
		PN	4-13-35	2					
		SE	4-16-32	10					
		SN	4-16-33	8					
		LE	4-19	6					
		F	4-27						

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TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From May 1

to May 26, 1914 No. 8

No.	DATE 1914	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE	REMARKS.
					A_E	A_N	A_z		
492	May 15	1 P N 1 E 1 S E S N L N ? L N L E L E L E F	19-54-22 20-03-11 20-04-18 20-04-19 20-15.0 20-20.2 20-20.2 20-22.2 20-24.0 20-35	8. 6 40 20 52 28 20	μ	μ	μ	3740	L diff- icult to read. Ampli- tude very minute.
493	" 19	1 P N 1 N 1 S E S N e L N e L E L E L F	0-33-10 0-34-51 0-39-19 0-39-24 0-42.2 0-42.3 0-46.2 0-48 to 1-11 1-17	 16 18 20 18				4400	
494	" 26	e 1 S E 1 S N e L E ? e L N ? L E L N L L L F	14-42-03 14-46-06 14-46-07 15-01.4 15-01.6 15-20 15-25 15-52 16-11 16-41 17-25	 6 8 50 60 38 43 20 21 19	40	50		9200 ?	

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INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From May 27

to May 28, 1914.

No. 9

No.	DATE 1914	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE	REMARKS.
					A_E	A_N	A_z		
495	May 28	1 P N 1 P E P R, N 1 S N 1 S E e L N e L E L L F	3-31-09 3-31-22 3-32-18 3-36-44 3-36-57 3-40.4 3-42.5 3-45 3-50 4-30	3 ^s 30 26 16-20 13-14	μ 40	μ 23	μ	3800 ^{km}	near Panama. Shutter not work- ing. only diff- erence of times reliable.
496	May 28	e P N e S N e S E e L E e L N L L F	18-04-54 18-10-13 18-10-26 18-14.3 18-15.4 18-19 18-25 18-51	 40 22 10				3600	Time inter- polated from preced- ing hour & minute marks. Shutter not work- ing.
497	May 28	e P N e L N L L L L F	19-00-04 19-11.5 19-14 19-20 19-34 19-44	24 20 8 14				4800?	Time inter- polated as above.

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TIME: Mean Greenwich, midnight to midnight.

INSTRUMENTS: Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From

to

May 29

May 31st, 1914.

No. 10

No.	DATE	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE	REMARKS
					A_E	A_N	A_z		
	1914		h. m. s.	s.	μ	μ	μ	km.	
498	May 29	PH 1N 8N? e LN? L L L L L L L F	5-10-06 5-11-06 5-17-20 5-20.3 5-28 5-42 6-10 6-15 6-20 6-43 6-53 7-13	 20 20 22 20 18 16 16				5600?	Time inter- polated. Shutter not working. Abso- lute time uncer- tain. Differ- ential time reliable.
499	May 29	e P 1 P E 1 P N 8 N L F	16-24-58 16-25-06 16-25-08 16-28-17 16-30 16-35	 3 3 14				1900	
500	May 31	1 P E 1 PRN 8N? LE LN F	13-55-00 13-55-24 13-58-44 14-01 14-15 14-25	3 10 20 16				2300	

Chas. H. Roberts

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Time : Mean Greenwich, midnight to midnight.

INSTRUMENTS : Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From

June 1914

to

June 21 .. 1914. No. 11

No.	DATE	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE	REMARKS
					A_E	A_N	A_Z		
	1914								
			h. m. s.	s.	μ	μ	μ	km.	
501	June 20	PE	7-39-00	3				10400	No mar-
		PN ?	7-40-00						ked max
		SE	7-50-03	17					imum.
		SN ?	7-50-12	18					
		eLN ?	8-10.4	60					
		LE	8-15.6	32					
		L	8-18	23-30					
		LE	8-23 to						
			8-30	13					Fine
		L	8-37	20-17					sinu-
		L	8-49	16					soidal
		F	10-00						waves.
502	" 20	PE	10-44-22	4				3700?	
		SE ?	10-50-04	6					
		SN ?	10-50-06						
		e	10-54-18	6					
		eL ?	11-01.0	22-20					
		LN	11-13	22					
		LE	11-21	20					
		L	11-24	24					
		L	11-31	18					
		F	11-50						
503	" 21	PE	0-01-12					10,000?	Midst
		eLN	0-30.0	24					micro-
		eLE	0-39.0	20					seisms
		L	0-48	17-16					
		L	0-54	16-15					
		L	1-02	16-15					
		F	1-21						

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INSTRUMENTS : Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From June 21st

to June 25th, 1914.

No. 12

No.	1914	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE	REMARKS
					A_E	A_N	A_Z		
504	June 21	eP ePN 1 SE? LN F	18-33-40 18-34-18 18-35-20 18-40-06 18-47 18-55	s. 24	μ	μ	μ	4700 ^{km} ?	
505	" 23	P SN SE LN L L L F	3-35-20 3-40-27 3-40-28 3-44.1 3-48 3-51 3-56 4-15	 20 20 24 16				3350	
506	" 25	e iPN PE SN SE LN ME MN LN LE LN LE L L L F	19-26-45 19-29-42 19-29-51 19-36-24 19-36-34 19-40 19-48 19-49 19-51 19-53 20-01 20-12 20-24 20-37 21-04 22-05	2 30 14 16 60 26 16 33 30-25 18-20 24-20	80	38		5000	

OTTO KLOPP

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TIME : Mean Greenwich, midnight to midnight.

INSTRUMENTS : Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From June 26 to June 30 1914. No. 13

No.	DATE 1914	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE	REMARKS
					A_E	A_N	A_Z		
			h. m. s.	s.	μ	μ	μ	km.	
507	June 26	PE	5-10-24					3600?	
		SN ?	5-20-13						
		SE ?	5-20-15						
		LN ?	5-27	20					
		LN	5-42	24					
		LE	5-46	36					
		L	5-52	20-24					
		L	6-01	16					
		Another quake sets in							
508	" 26	PE	6-12-52						Possibly Coda of preceding.
		LE	6-19	16					
		LN	6-20	17					
		LE	6-51	24					
		L	6-57	20					
		LE	7-22	16					
		F	7-35						
509	" 29	en	6-52-15						
		le	6-52-15	6					
		F	7-30						

OTTO KLOBE

Otto Reber

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INSTRUMENTS : Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From July 1st to July 6, 1914. No. 15

No.	DATE 1914	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE km.	REMARKS
					A _E	A _N	A _Z		
510	July 3	P ?	20-46-14 ^{h. m. s.}	4	μ	μ	μ	6000	
		SE	20-53-52						
		eLN	21-04	20					
		eLE	21-01	20					
		LN	21-06	18					
		LE	21-09	18					
		F	21-30						
511	" 4-5	P ?	23-58-45					2000	
		iN	0-01-19	2					
		SN	0-02-13						
		SE	0-02-11						
		eLN	0-05	20					
		LN	0-13	15					
		LE	0-51	20					
		F	1-00						
512	" 5	e ? N	22-12-29						
		e ? E	22-12-13						
		eLN	22-51	24					
		eLE	22-52	34					
		L	22-53 to	20 to					
			23-19	18					
		LE	23-54	16					
		F	23-35						
513	" 6	LN	3-06	20					
		e?E	3-12-20	3					
		S?N	3-19-22	6					
		S?E	3-19-20	6					
		LE	3-42	48					
		F	3-50						
514	" 6	STN	4-13-34	7					
		S?E	4-13-32	7					
		ME	4-18.2	7	7				
		F	4-50						

Otto Albrecht

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TIME : Mean Greenwich, midnight to midnight.

INSTRUMENTS : Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From July 6th,

July 14th, 1914. No. 15

No.	DATE 1914	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE	REMARKS
					A_E	A_N	A_Z		
			h. m. s.	s.	μ	μ	μ	km.	
515	July 6	PN PE S F	7-02-18 7-02-20 7-05-24 7-30					1800	
516	" 8	eP iPE SN SE eLN eLE LN LE F	21-15-17 21-15-20 21-22-07 21-22-10 21-42 21-42 21-44 21-45 21-55	 30 48 22 20				5200	
517	" 14	eP? iN S?E eL LN LN LN LE LN LE LN LE LN LE LN LE F	3-30-18 3-32-50 3-39-04 3-51 4-02 4-08 4-29 4-24 4-21 4-28 4-30 4-37 4-41 4-43 4-48 5-03 5-15	 6 9 10 10 12 20 13 20 20 18 17 17 14 14				7300?	Contrary to usual experience the L waves increase for some time in length of period.

Otto Neuhof

OTTAWA

No.

Earthquake Station, Dominion Astronomical Observatory

LATITUDE 45° 23' 38", LONGITUDE 75° 42' 57" or 5^h 02^m 51.8 W. Greenwich, ALTITUDE 83m.

International
Seismological
Centre

Time : Mean Greenwich, midnight to midnight.

INSTRUMENTS : Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From

July 15th

to July 31st, 1914. No. 16

No.	DATE	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE	REMARKS
					A_E	A_N	A_z		
	1914								
518	July 17	1P S eL L M M L L F	7 ^h -17-13 ^s 7-25-32 7-35 7-40 7-45 7-45 7-57 8-08 9-06	3 5 40 20 18 18 16 16	μ	μ	μ	6800	
519	" 21	eN ee eLN LN LE F	10-14-08 10-14-15 10-14.7 10-15 10-17.3 10-28	13 11 9					
520	" 21	P S eLN eLE MN ME F	22-38-24 22-44-09 22-43.3 22-50 22-51.7 22-51.1 23-50	22 20 20 20		50 100		3970	

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TIME : Mean Greenwich, midnight to midnight.

INSTRUMENTS : Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From **Aug. 1** to **Aug. 8, 1914** No. **17**

No.	1914	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE	REMARKS
					A_E	A_N	A_Z		
521	Aug. 3	1PN PE PRN es eLN eLE ME F	11-31-22 11-31-28 11-31-46 11-35.5 11-36-48 11-36-40 11-42.2 12-10.	8.	μ	μ	μ	2540?	
522	Aug. 4	ePN ePE 1S eLN eLE MN ME F	22-54-44 22-54-40 23-05-12 23-23-13 23-23-21 23-35.3 23-30 24-39					9560	
523	Aug. 8	ePN 1PE 1SN ese eLN eLE LN LE LE LE LE F	19-16-07 19-16-07 19-21-57 19-21-48 19-24-27 19-24-32 19-33-15 19-29-30 19-32-30 19-33-30 19-39- 21-47	7 5.3 6 7 6				4100	At 21-25-48 the amplitude increases suddenly & remains large for 20 mins. This appears to be the L waves arriving by the opposite side of the earth. It may be a second quake if so phases not marked.

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Time : Mean Greenwich, midnight to midnight.

INSTRUMENTS : Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.



From Aug. 9 to Aug. 31, 1914 No. 18

No.	DATE	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE	REMARKS
					A_E	A_N	A_z		
	1914								
524	Aug. 21	P 1PR ₂ N 1PR ₂ E eSN eSE SR ₁ E eL MN ME LN LE F	5 ^h -35 ^m -32 ^s 5-36-58 5-36-50 5-41-10 5-41-12 5-41-17 5-46 5-50-45 5-50-50 5-51 5-50-30 6-53	S. 12 12	μ	μ	μ	3900	
525	Aug. 22	eLN eLE	15-48- 15-53-						
526	Aug. 28	ePN S eL LN F	16-43-08 16-48-24 16-51- 16-56- 17-	28				3500	E W Record masked in mi- croseisms until L waves appeared.

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TIME : Mean Greenwich, midnight to midnight.

INSTRUMENTS : Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From September 1st to Sept. 30, 1914 — No. 19

No.	DATE 1914	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE	REMARKS
					A_E	A_N	A_Z		
			h. m. s.	s.	μ	μ	μ	km.	
527	Sep. 10	P _N L _N L _E F	1-57-14 1-57-51 1-57-57 2-07	12 12					
528	Sep. 10	eP _E eP _N L _N L L F	10-11-35 10-11-38 10-12-16 10-12.6 10-15 10-29	11-12 8-9				340	
529	Sep. 25	P S _N S _E L L L F	10-39-37 10-46-40 10-46-42 10-52.2 10-55 11-01 11-15	20 20 20				5440	Quake reported in Ecuador

Otto Neuhoff

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International
Seismological
Centre

TIME : Mean Greenwich, midnight to midnight.

INSTRUMENTS : Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From

October 1

to

Oct. 31, 1914

No. 20

No.	DATE 1914	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE	REMARKS
					A_E	A_N	A_z		
			h. m. s.	s.	μ	μ	μ	km.	
530	Oct. 1	PN PN SE L L F	6-31-08 6-32-34 6-37-06 6-40.2 6-43 7-05	20 26				4200	During quake minute breaks missing. Breaks on sheet before and after. Time interpolated. Relative correct, but absolute time may be in error a few seconds.
531	Oct. 3	P S eL M L L L L F	17-28-39 17-33-51 17-36.2 17-38.3 17-44 18-01 18-20 18-44 19-10	20 26 11 12 11 11	85	90		3420	
532	Oct. 3	P S SE ? SE ? eLN eLN L F	22-18-40 22-28-10 22-33.2 22-35.5 22-42.0 22-42.4 22-54 23-40	2 28 28 26 30 16				8200	Reported east of Bayana.
533	Oct. 22	ePN SE LN F	7-00-46 7-03-49 7-05 7-15	2 10 8				1780	Not well marked in phase.
534	Oct. 23	ePN LN SE ? LN LE L L L A	6-37-57 6-39-43 6-45-19 6-57.0 6-57.5 7-20 7-28 7-40 8-00	2 20 40 36-30 25 20				6300	

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TIME : Mean Greenwich, midnight to midnight.

INSTRUMENTS : Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.



From

to

Nov. 30, 1914

Nov. 30, 1914

No. 21

No.	DATE	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE	REMARKS
					A_E	A_N	A_z		
	1914		h. m. s.	s.	μ	μ	μ	km.	
535	Nov. 9	L	1-31.0	9				900	
536	" 10	ePN	11-22-06	2					
		S	11-23-43	2					
		ME	11-24.0	4	10				
		L	11-26.5	9					
		F	11-39						
537	Nov. 18	PN	9-46-14	2				5030	
		SE	9-52-58	5					
		LN	9-56.2	18					
		LE	9-56.5	20					
		L	10-08	16					
		F	10-25						
538	Nov. 24	PN	12-11-37	2				4030	
		S	12-17-26	4	24	17			
		1SR ₂	12-20-19	6	23	13			
		L	12-21.3	30					
		L	12-41 to	26 to					
			12-43	20					
		L	12-47 to	18 to					
			13-09	16					
		L	13-23 to	14					
			13-26						
		F	14-00						

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TIME : Mean Greenwich, midnight to midnight.

INSTRUMENTS : Two Bosch photographic horizontal pendulums, one Spindler and Hoyer 80 kg. vertical seismograph.

From

to

Dec. 1st

Dec. 31st, 1914. No. 22.

No.	DATE	PHASE	TIME	PERIOD	AMPLITUDE			DISTANCE	REMARKS
					A_E	A_N	A_Z		
	1914		h. m. s.	s.	μ	μ	μ	km.	
539	Dec. 4	1P _N S ? F	22-46-14 22-48-38 23-0	3 10				1360?	
540	" 20	P PR _{3E} ? PR _{3N} ? SE ? SN ? LN LN LE F	14-28-08 14-35-02 14-35-48 14-38-04 14-38-43 14-54 15-00 15-06 16-00	2 12 40 16 20				9200	Time inter- polated
541	" 25	P 1SE LE PN ME F	3-47-33 3-52-05 3-54.8 3-55-35 3-57.1 4-20	2 20 5	8			2800	N seems to show a sec- ond shock at 3-55- 35. Time inter- polated
542	" 28	L L F	2-56 3-01 3-11	10 10					