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H E L S I N K I U N I V E R S I T Y  
 S e i s m o l o g i c a l S t a t i o n

B u l l e t i n N<sup>o</sup> 10

January - March 1949.

January 23	eP	06 44 06	Distance (S-P) = 88.3 + corr.
	ePP	06 44 40	Depth of focus = 140 km.
	ePP	06 47 38	
	eSKS	06 54 34	
	eS	06 54 50	
	ePS	06 55 53	
	eSS	07 00 47	
	eSSS	07 04 09	
	e	07 07 00	
	eL	07 13	



Long waves were recorded:

02nd: 13 h, 09th: 17 h, 14th: 02 h, 16 h, 19th: 15 h,  
 23rd: 01 h, 24th: 10 h, 27th: 08 h, 11 h.

February 01	e(SKS)	18 40 37
	e	18 41 19
	e	18 41 39
	eL	19 10

13	ePKP	18 44 05	Distance (SS-PKP) = 146°
	epPKP	18 44 22	
	ePKP <sub>2</sub>	18 44 37	
	epPKP <sub>2</sub>	18 44 54	
	eSKKS <sub>2</sub>	18 54 24	
	ePPS	19 00 05	
	eSS	19 06 24	
	eL	19 26	

23	iP	16 15 43	comp. Distance (S-P) = 40.2
	ePP	16 17 15	
	eS	16 21 48	
	eSS	16 23 53	
	eSSS	16 24 53	
	eL	16 27	

Long waves were recorded:

02nd: 18 h, 10th: 23 h, 14th: 19 h, 24th: 23 h, 28th: 01 h.

March 04 iP 10 26 22 comp.  
 ipP 10 27 09  
 isP 10 27 31  
 ePP 10 28 00  
 epPP 10 28 55  
 iS 10 31 54  
 ipS 10 33 10  
 isS 10 33 57

Distance (S-P) = 35°2 + 00P  
 Depth of focus = 220 km

16 ePKP 22 34 30  
 ePPP 22 40 42  
 eSKKS 22 43 56  
 eFPS 22 49 58  
 eSS 22 54 11  
 e 22 58 29  
 eL 23 16

17 ePKP 21 24 27  
 ePPP 21 30 14  
 eSKKS 21 33 52  
 ePPS 21 39 55  
 eSS 21 44 05  
 eL 22 08

27 eP 06 47 34  
 ePP 06 51 16  
 eS 06 57 46  
 ePS 06 59 41  
 e 07 01 44  
 eSS 07 05 31  
 eL 07 16

Distance (S-P) = 82°7

Long waves were recorded:

04th: 15 h, 22nd: 02 h, 24th: 21 h.

July 1949

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Bulletin No.11  
April - June 1949

April	13	iP iS eL	20 06 50 20 15 57 20 27	d	Distance 71 <sup>0</sup> .0
April	20	ePP e ePKS eSKS e e e e e eSS e e e eL	03 50 21 03 50 52 03 51 27 03 55 20 03 56 19 03 56 41 03 59 47 04 03 17 04 05 26 04 06 53 04 08 23 04 09 45 04 15 33 04 21		
April	23	e e e e e eL	11 42 18 11 45 02 11 50 36 11 51 27 11 55 20 12 09		
April	24	iP ePP eS eL	04 29 39 04 31 10 04 35 38 04 43	c	Distance 39 <sup>0</sup> .1
April	25	iSKS eSKKS ePS e e eSS e eL	14 19 44 14 20 35 14 23 00 14 23 39 14 24 51 14 28 10 14 28 56 14 44		
April	25	e eL	23 12 39 23 22		

- 2 -

1949  
 April 30 eP 01 36 20 Distance about 89°  
 e 01 36 56  
 ePP 01 39 52  
 ePPP 01 42 26  
 eSKS 01 46 24  
 e 01 46 56  
 e 01 47 45  
 ePS 01 48 37  
 eSS 01 53 55  
 e 01 57 33  
 e 02 01 18  
 eL 02 06

Long waves were recorded:

19th: 15 h

May 03 eP 06 07 02 Deep!  
 eS 06 15 22 Distance 61.9° + corr.  
 e 06 16 24  
 e 06 16 40  
 eL 06 27

May 09 eS 13 58 00  
 eL 14 16

May 13 e 20 22 21  
 eL 20 25

May 21 eP 21 51 18 Distance 71.5°  
 e 21 51 32  
 eS 22 00 28  
 e 22 00 48  
 e 22 01 12  
 eL 22 14

May 25 iP 08 31 20 c Distance 38.5°  
 iPP 08 32 51  
 eS 08 37 15  
 e 08 37 41  
 eL 08 41

Long waves were recorded:

16th:05 h

June 24 iP 22 51 17 c Distance about 91°  
 e 22 52 25 Deep!  
 eS 23 02 14  
 e 23 02 33  
 e 23 02 56  
 eL 23 28

Long waves were recorded:

11th: 15 h  
 12th: 18 h  
 14th: 01 h  
 16th: 18 h  
 26th: 06 h and 09 h

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Bulletin No.12  
July - September 1949

July	02	eP	20 10 23		Deeper than normal.
		eSKS	20 20 40		
		eS	20 20 56		
		ePS	20 22 06		
		e	20 24 42		
		eL	20 42		
July	04	iP	03 48 08	c	Distance 38°7
		ePP	03 49 31		
		iS	03 54 04		
		eL	03 57		
July	10	iP	04 00 33	d	Distance 35°2
		i	04 00 42		
		i	04 00 55		
		iPP	04 01 48		
		i	04 02 29		
		iS	04 06 07		
		eL	04 09		
July	10	eP	05 23 25		
July	10	eP	05 34 23		
July	10	eP	14 20 27		Distance 35°2
		eS	14 25 51		
		eL	14 30		
July	10	eP	15 25 57		
		eS	15 30 17		
July	10	eP	15 56 15		Distance 35°2
		eS	16 01 49		
July	10	iP	16 30 59		Distance 35°2
		ePP	16 32 15		
		iS	16 36 33		
July	19	eP	17 49 11		Distance 35°2
		eS	17 54 45		
		eL	17 58		
July	23	iPKP	10 45 43		Deep!
		epPKP	10 46 31		
		ePP	10 48 07		
		ipPP	10 49 07		
		eL	11 20		

- 2 -

1949

July	23	eP	15 08 22
		i	15 08 29
		eS	15 12 15
		e	15 12 23
		eL	15 14

 Distance 21<sup>o</sup>.4

July	27	iPKP	15 31 16
		eL	16 07

Long waves were recorded:

08th: 08 h and 18 h  
 10th: 11 h 11 h and 12 h  
 11th: 16  
 14th: 11 h

Aug.	06	e	00 59 43
		e	01 16 29
		eL	00 40

Aug.	17	eP	18 44 20
		e	18 45 11
		e	18 45 24

Aug.	17	iP	18 49 18
		iS	18 53 28
		eL	18 55

 c Distance 23<sup>o</sup>.5

Aug.	22	iP	04 12 03
		eS	04 20 36
		eL	04 28

 d Distance 64<sup>o</sup>.7

Aug.	23	e	20 44 24
		e	20 45 21
		eL	20 58

Aug.	30	eS	16 57 03
		eL	16 58.5

Long waves were recorded:

05th: 20 h  
 13th: 19 h  
 23th: 16 h

Sept.	14	ePP	20 07 29
		eSKS	20 14 03
		iSKKS	20 14 50
		e	20 18 36
		eSS	20 21 39
		e	20 24 30
		e	20 26 56
		eL	20 34

Sept.	21	e	13 18 27
		e	13 19 51
		eL	13 30

- 3 -

1949

Sept.	27	eP	15 40 49	c	Distance 60 <sup>o</sup> .1
		ePPP	15 44 35		Depth of focus 40 km.
		eS	15 49 00		
		epS	15 49 13		
		eScS	15 50 41		
		eL	15 56		
Sept.	29	e	05 08 07		
		e	05 08 43		
		e	05 09 48		
		e	05 10.5		

Long waves were recorded:

05th: 03 h  
 20th: 13 h  
 24th: 05 h  
 25th: 15 h

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Bulletin No.13  
 October - December 1949

Oct.	07	ePP	12 19 50	Distance about 97°
		ePPP	12 21 55	
		e	12 23 33	
		e	12 25 27	
		eSKS	12 26 34	
		e	12 26 57	
		ePS	12 28 41	
		eSS	12 33 40	
		e	12 34 08	
		e	12 36 04	
		eL	12 48	
Oct.	19	ePP	21 20 33	Distance about 114°
		eSKS	21 27 11	
		e	21 29.0	
		ePPS	21 30.9	
		e	21 35 12	
		eSS	21 36 15	
		eSKKS	21 39 11	
		eSKKKS	21 42.5	
		e	21 47 47	
		eL	21 49	
		e	21 58.0	
Oct.	31	eP	01 50(00)	P is in the minute mark. Distance about 64°-65°.
		eS	01 58 33	
		eL	02 12	

Long waves were recorded:

04th: 11 h  
 08th: 21 h  
 20th: 02 h and 13 h  
 21th: 22 h  
 31th: 18 h

Nov.	03	eP	01 22 54	c	Distance 62°5 + corr. Depth of focus 185 km.
		epP	01 23 38		
		eS	01 31 15		
		epS	01 32 15		
		isS	01 32 29		
Nov.	20	eP	07 22 33	Distance 84°8	
		eS	07 32 58		
		e	07 33 36		
		eL	07 45		



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Nov.	22	iPKP	01 11 07		Distance about 143°
		i	01 11 12		
		e	01 12 12		
		e	01 12 36		
		ePKS	01 14 29		
		eSKSP	01 24 37		
		eSKKKS	01 28 13		
		eSS	01 33 00		
		eL	01 53		
Nov.	23	eP.	16 55 48	c	Distance 21°8
		eS	16 59 45		
		eL	17 03		
Nov.	27	ePP	09 04 14		Distance about 136°
		iPKS	09 05 09		
		eSKS	09 09 07		
		eSKKS	09 11 05		
		eSKSP	09 14 12		
		eSS	09 22 12		
		e	09 24 13		
		eL	09 46		

Long waves were recorded:

01st: 13 h

02nd: 03 h

07th: 07 h

11th: 16 h

Dec.	17	iPKP	07 16 19		
		iPP	07 16 56		
		ePPP	07 18 58		
		ePKS	07 20 12		
		e	07 33 56		
		ePPP	07 35 51		
		eSKKKS	07 38 42		
		e	07 41 55		
		eL	07 45		

Dec.	17	ePKP	15 30 17		
		ePP	15 30 54		
		ePKS	15 34 07		
		e	15 48 24		
		e	15 52 56		
		eL	16 00		

Dec.	21	e	20 00 05		
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Dec.	22	iS	09 54 01		Deeper than normal.
		i	09 54 23		
		e	09 54 59		
		eL	10 13		

Dec.	25	e	23 34		
		eL	23 54		

Dec.	26	i	03 41 27		
		i	03 42 02		
		eL	03 43		

- 3 -

1949					
Dec.	26	i	05 25 40		
		i	05 26 15		
		eL	05 27		
Dec.	26	iP	06 46 39		
		e	07 03 03		
		eL	07 17		
Dec.	28	e	00 24 18		
		e	00 28 18		
		e	00 34 55		
		e	00 39 42		
		eL	00 50		
Dec.	29	eP	03 15 54	c.	Distance 79 <sup>0</sup> .4
		e	03 20 32		
		eS	03 25 46		
		eL	03 45		

Long waves were recorded:

07th: 16 h  
 15th: 11 h  
 23rd: 22 h  
 29th: 07 h, 11 h, 13 h and 18 h

January 3, 1950

Eijo Vesanen

H. Harkkoma