

UNIVERSITETET I BERGEN
JORDSKJELVSTASJONEN
(Seismological Observatory)

Seismological Bulletin
Lillehammer, Norway
April 1, 1965 - December 31, 1965

By

ANDERS SØRNES
and
JAKOB BLEIE

BERGEN - NORWAY 1966

UNIVERSITETET I BERGEN
JORDSKJELVSTASJONEN
(Seismological Observatory)

LILLEHAMMER (LHN) NORWAY

Seismological Bulletin
Lillehammer, Norway
April 1, 1965 - December 31, 1965

Number of stations (12 + 20)	1965	1966	1967
Long-period system	11.5	12	12
Short-period system (12 + 12)	11.5	12	12
Long-period system (12 + 12)	11.5	12	12
Short-period system (12 + 12)	11.5	12	12

By

ANDERS SØRNES
and
JAKOB BLEIE

The data given in this bulletin refer to the stations and instrumentation mentioned above. The recordings are obtained by 12 mm film recorders. Both the short and the long period systems include photophone amplifiers having a galvanometer with periods 0.2 and 20 sec., respectively. The arrival time given for each phase is the earliest onset of that phase on any component. The exact time of some low phases, however, is read from the recordings obtained by

BERGEN - NORWAY 1966

LILLEHAMMER [LHN] NORWAY

Latitude: 61° 02' 57"

Longitude: 10° 52' 48"

Elevation: 555 m

Foudation: Slate

Instrument	Weight of mass in kgm	Period sec		Magnification at Ts	Damping	Film speed mm/min
		Ts	Tg			
Benioff vertical	107.5	1.0	0.2	125000	15:1	15
Benioff horizontal (Az = 138°)	100.0	1.0	0.2	125000	15:1	15
Benioff horizontal (Az = 228°)	100.0	1.0	0.2	125000	15:1	15
Sprengnether vertical	11.2	20	30	15000	Critical	3
Sprengnether horizontal (Az = 138°)	10.7	20	30	15000	Critical	3
Sprengnether horizontal (Az = 228°)	10.7	20	30	15000	Critical	3

The data given in this bulletin refer to the position and instrumentation mentioned above. The recordings are obtained by 35 mm film recorders. Both the short and the long period systems include phototube-amplifiers having a galvanometer with periods 0.2 and 30 sec., respectively. The arrival time given for each phase is the earliest onset of that phase on any component. The exact time of some few phases, however, is read from the recordings obtained by

two other recording systems. The station comprises, besides the already mentioned instrumentation, 6 other identical vertical Benioff seismometers placed around the quoted position making it into a 7 element crossed array of seismometers with a spacing of 1 km. All this data are recorded on a IRIG standard one inch wide 14 channel FM-modulated magnetic tape at a speed of 0,3 inch/sec, and all short period data is also recorded on 16 mm film by a Develocorder using galvanometers with a natural frequency of 16 cps and a film speed of 30 mm/min.

The readings have been punched on cards according to the codes given by the International Seismological Research Centre in Edinburgh. This bulletin is a reproduction of a print-out of these cards sent us from the Centre in Edinburgh. Only capital letters are used, and pP for example is indicated by PP

The logarithm of the amplitude/period ratio, $\log \frac{A}{T}$ is given when it is possible. The amplitude A is read from the vertical short period component and given in millimicrons as the maximum centre to peak displacement within the first few cycles of the initial arrival of P or PKP. The predominant period T in the seismogram, where A is observed, is given in seconds.

The station began its normal operation in August 1963 and was at that time called 00 NW Oslo. The Geotechnical Corporation undertook the installation of the station and also the operation of it until 1st April 1965. At that date operation of the station was undertaken by the Seismological Observatory, University of Bergen, on an Advanced Research Project Agency (ARPA) contract through the European Office of Aerospace Research, expiring 31st December 1966.

LILLEHAMMER (LHN) SEISMIC STATION BULLETIN - 1965 PAGE 1

YEAR	MTH	DY	HR	P/PKP	S/SKS	SUPP. 1	SUPP. 2	SUPP. 3	LOG
				M S	M S	PHASE M S	PHASE M S	PHASE M S	A/T
1965									
APR 01	01			117	40.0				
APR 01	07			121	42.2				
APR 01	12			E34	46		I 35 03		
APR 01	13			139	40.0				
APR 01	18			103	01.0				
APR 02	08			E53	38				
APR 02	15			154	26.6	55 38			
APR 02	16			D102	54.2				1.6
APR 02	16			139	23.4				
APR 02	22			D133	33.1				
APR 02	22			D134	37.4		*PP 34 47	PP 36 13	PCP 36 37 1.6
APR 02	23			E15	36				
APR 03	02			148	47.7		*PP 48 59		1.3
APR 03	03			D110	10.3				1.0
APR 03	03			E49	02				
APR 03	03			141	25.1				
APR 03	04			103	03.2				
APR 03	08			E59	05				
APR 03	11			E33	19				
APR 03	12			E44	45				
APR 03	14			D135	58.0		*PP 36 08	PPP 36 48	I 51 54 1.6
APR 03	15			C106	24.7				
APR 03	16			E12	05				
APR 03	18			D151	15.0				
APR 03	23			104	13.9		I 04 23	I 04 29	
APR 04	07			E17	31				
APR 04	09			E01	06				
APR 04	11			D110	28.6				
APR 04	13			D141	26.7	50 19	*PP 41 36	LQ 58 58	E 73 20
APR 04	14			D101	55.0				
APR 04	15			D155	47.8				
APR 04	16			D101	18.9				
APR 04	16			D112	23.4				
APR 04	16			D129	44.9				
APR 04	16			C152	20.7				
APR 04	19			119	04.7				
APR 04	20			C143	57.0				
APR 04	20			E56	37				
APR 04	22			DE59	29				
APR 05	02			124	29.8				
APR 05	03			118	10.1	22 34	I 18 12	E 25 12	I 27 24
APR 05	03			E48	55				
APR 05	14			C103	16.9	12 23	PP 05 47		
APR 05	14			D153	11.3				
APR 05	17			D106	32.7				
APR 05	18			D114	36.7				
APR 05	19			E43	59				
APR 05	21			C119	41.7				
APR 06	03			D129	48.9				1.2
APR 06	04			D138	51.0				1.5
APR 06	05			C143	32.7		PP 46 15		
APR 06	08			121	45.9		*PP 22 06		
APR 06	09			156	11.2		PP 60 14		
APR 06	12			145	30.8				
APR 06	13			D129	56.0				

LILLEHAMMER (LHN) SEISMIC STATION BULLETIN - 1965 PAGE 4

YEAR	MTH	DY	HR	P/PKP	S/SKS	SUPP. 1	SUPP. 2	SUPP. 3	LOG
1965				M S	M S	PHASE M S	PHASE M S	PHASE M S	A/T
APR 25	02			E57 45					
APR 25	03			I05 28.8					
APR 25	05			E50 21					
APR 25	08			I32 28.2					
APR 25	08			I50 19.7					
APR 25	10			C111 49.7					
APR 25	12			D151 03.8					
APR 25	14			C118 17.8					1.4
APR 25	14			D142 40.5					1.4
APR 25	15			I34 32.2					
APR 25	15			I43 24.3					
APR 25	16			D147 19.9					
APR 25	21			I26 28.8					
APR 25	21			D140 33.5					
APR 26	02			C107 11.4					
APR 26	02			I07 11.2					
APR 26	03			I32 21.7					
APR 26	13			I39 04.9					
APR 26	15			E36 26					
APR 26	20			C139 42.7					
APR 26	21			D149 03.9					
APR 26	22			D112 40.6					
APR 26	22			C127 54.8					
APR 26	22			D146 56.2					
APR 26	23			D109 07.2					
APR 27	01			D101 47.7					
APR 27	02			C129 50.0					
APR 27	02			D156 12.7					
APR 27	03			CE33 45					
APR 27	11			I08 50.6					
APR 27	14			D114 41.5					
APR 27	15			D100 53.9					
APR 27	15			D106 15.2					
APR 28	09			E55 58					
APR 28	12			D119 23.4					
APR 28	13			E49 09					
APR 28	14			I44 55.4					
APR 28	16			C144 17.2					
APR 28	17			D101 44.8					
APR 28	23			E07 03					
APR 29	04			D127 34.0					
APR 29	06			D119 15.0					
APR 29	09			I52 31.3					
APR 29	10			E03 02					
APR 29	11			I32 38.5					
APR 29	11			D148 01.4					
APR 29	14			D115 08.8					
APR 29	15			C139 22.7					
APR 29	16			I01 45.7					
APR 29	22			D151 49.0					
APR 30	11			D156 47.9					
APR 30	16			I11 48.9					
APR 30	19			E42 24					
MAY 01	02			D105 19.6					
MAY 01	02			D107 53.2					

LILLEHAMMER (LHN) SEISMIC STATION BULLETIN - 1965 PAGE 5

YEAR	MTH	DY	HR	P/PKP	S/SKS	SUPP. 1	SUPP. 2	SUPP. 3	LOG
1965				M S	M S	PHASE M S	PHASE M S	PHASE M S	A/T
MAY 01	04			I23 26.1					
MAY 01	13			C116 22.2					
MAY 01	21			D137 43.0					
MAY 02	00			D115 29.9					
MAY 02	00			E46 58					
MAY 02	07			E25 39					
MAY 02	09			I15 48.2					
MAY 02	11			D110 35.6					
MAY 02	22			I39 00.8					
MAY 02	22								
MAY 03	10			I14 00.6					
MAY 03	16			E15 14					
MAY 03	17			I51 46.5					
MAY 03	21			I14 10.0					
MAY 04	05			D119 11.6					
MAY 04	08			D142 58.6					
MAY 04	18								
MAY 05	21			D145 05.8					
MAY 05	23			D112 45.9					
MAY 05	23			E36 53					
MAY 06	02			E00 44					
MAY 06	04			E33 37					
MAY 06	10			I03 21.3					
MAY 06	10			CE11 26					
MAY 06	14			E42 42					
MAY 06	20			E07 43					
MAY 06	23			C150 51.0					
MAY 07	00			E45 59					
MAY 07	01			D110 11.5					
MAY 07	02			D142 29.9					
MAY 07	13			D121 03.7					
MAY 07	14			D147 43.0					
MAY 07	16			D103 12.6					
MAY 07	16			D152 19.8					
MAY 07	17			D112 01.2					
MAY 07	19			E22 13					
MAY 08	01			D129 13.2					
MAY 08	03			D117 59.2					
MAY 08	17			E02 45					
MAY 09	00			I09 46.3					
MAY 11	06			D147 18.7					
MAY 11	17			I47 19.4					
MAY 11	22			D140 02.7					
MAY 12	00			C139 29.8					
MAY 12	06			I20 24.5					
MAY 12	06			E21 51					
MAY 12	17			E31 08					
MAY 13	03			E06 21					
MAY 13	04			I38 43.8					
MAY 13	07			E09 55					
MAY 13	11			D100 41.3					
MAY 13	16			C148 22.7					
MAY 13	19			C134 33.9					
MAY 13	21			D114 15.8					
MAY 14	02			D108 13.0					

LILLEHAMMER (LHN) SEISMIC STATION BULLETIN - 1965 PAGE 6

YEAR	MTH	DY	HR	M	S	P/PKP	S/SKS	SUPP. 1	SUPP. 2	SUPP. 3	LOG
1965								PHASE	PHASE	PHASE	A/T
MAY 14	09					D157					
MAY 14	17					D101					
MAY 14	17					E41					
MAY 14	21					E14					
MAY 15	18					E49					
MAY 15	21					D112					
MAY 15	23					I52					
MAY 16	01					C141					
MAY 16	11					D145					
MAY 16	11					D149					
MAY 17	13					C135					
MAY 17	17					D131					
MAY 17	20					D131					
MAY 17	21					D135					
MAY 18	01					I16					
MAY 18	08					E17					
MAY 18	11					D100					
MAY 18	22					D157					
MAY 19	03					D119					
MAY 19	03					C121					
MAY 19	04					I40					
MAY 19	18					D107					
MAY 19	22					D118					
MAY 19	22					D128					
MAY 19	23					D150					
MAY 20	00					D159					
MAY 22	10					D149					
MAY 22	15										
MAY 22	16					D121					
MAY 22	19					D103					
MAY 23	01					D147					
MAY 23	04					D109					
MAY 23	07					C158					
MAY 23	14					C157					
MAY 23	23										
MAY 24	03					E46					
MAY 24	14					E00					
MAY 24	23					D134					
MAY 25	01					E42					
MAY 25	13					D118					
MAY 25	14					I45					
MAY 25	17					E43					
MAY 26	01					I07					
MAY 26	05					I11					
MAY 26	07					I02					
MAY 26	08					I53					
MAY 26	14					D104					
MAY 26	16					E13					
MAY 26	19					D126					
MAY 26	20					I02					
MAY 26	22					C119					
MAY 26	23					C138					
MAY 26	23					D143					
MAY 27	13					I24					
MAY 27	19					C140					

LILLEHAMMER (LHN) SEISMIC STATION BULLETIN - 1965 PAGE 7

YEAR	MTH	DY	HR	M	S	P/PKP	S/SKS	SUPP. 1	SUPP. 2	SUPP. 3	LOG
1965								PHASE	PHASE	PHASE	A/T
MAY 27	22					D140					
MAY 28	03					E57					
MAY 28	18					C124					
MAY 29	01					E53					
MAY 29	04					E20					
MAY 29	12					C106					
MAY 29	15					D156					
MAY 30	01					C125					
MAY 30	11					E46					
MAY 30	13					I57					
MAY 31	00					I20					
MAY 31	02					I13					
MAY 31	03					C131					
MAY 31	08					C149					
MAY 31	11					C135					
MAY 31	11					E52					
MAY 31	15					D110					
MAY 31	17					I24					
JUN 01	04					D143					
JUN 01	08					D102					
JUN 01	15					E22					
JUN 01	15					E25					
JUN 01	23					E49					
JUN 02	05					D131					
JUN 02	15					C104					
JUN 02	23					C150					
JUN 03	11					C108					
JUN 03	13					C135					
JUN 03	15					D138					
JUN 03	18					D136					
JUN 03	20					C141					
JUN 04	00					C157					
JUN 04	05										
JUN 04	15					C113					
JUN 04	15					D146					
JUN 04	18					I48					
JUN 05	00					C135					
JUN 05	01					C111					
JUN 06	09					D148					
JUN 06	11					D133					
JUN 06	15					I52					
JUN 06	20					C137					
JUN 06	21					D148					
JUN 06	23					C125					
JUN 07	05					D101					
JUN 07	06					D136					
JUN 07	13					E53					
JUN 08	06					D126					
JUN 08	13					C152					
JUN 08	23					D135					
JUN 09	12					I33					
JUN 09	13					D137					
JUN 09	15										
JUN 09	16					I14					
JUN 09	18					I00					

LILLEHAMMER (LHN) SEISMIC STATION BULLETIN - 1965													PAGE 12
YEAR	*****												
1965	P/PKP	S/SKS	SUPP. 1		SUPP. 2		SUPP. 3		LOG				
MTH DY	HR	M S	M S	PHASE	M S	PHASE	M S	PHASE	M S	M S	A/T		

JUL 17	13	106 36.5			PP 07 59								
JUL 17	13	C118 46.9			I 18 53								
JUL 17	16	103 14.6											
JUL 17	18	132 09.2											
JUL 18	07	E34 21											
JUL 18	08	109 21.9											
JUL 18	10	110 43.3											
JUL 18	12	149 25.9											
JUL 18	13	151 26.0											
JUL 18	18	100 10.3											
JUL 18	22	C126 06.5			PCP 26 29								
JUL 19	00	114 57.0											
JUL 19	04	125 16.9			*PP 25 27								
JUL 19	06	158 51.9											
JUL 19	07	145 38.2											
JUL 19	08	149 40.7											
JUL 19	09	E19 48											
JUL 19	09	122 15.2			*PP 22 24								
JUL 19	10	126 58.5											
JUL 20	00	112 32.0											
JUL 20	01	E05 01											
JUL 20	07	D151 21.3			*PP 52 03			PP 53 07					
JUL 20	11	130 42.4											
JUL 20	13	131 43.8			*PP 31 54								
JUL 20	14	C112 19.7											
JUL 21	00	E49 54											
JUL 21	03	E11 01											
JUL 21	17	E07 40											
JUL 21	18	103 09.0			*PP 03 22			PCP 03 40					
JUL 21	22	148 33.2											
JUL 22	01	E29 07											
JUL 23	17	111 31.8											
JUL 23	20	D131 11.4	31 52		P* 31 17			SG 32 06					
JUL 23	21	138 29.2											
JUL 24	03	E58 43											
JUL 24	11	155 29.9											
JUL 24	18	105 32.8											
JUL 25	03	153 19.2											
JUL 25	13	C144 27.2											
JUL 25	21	D157 37.7	66 36										
JUL 25	22	E02 40											
JUL 26	00	E46 07											
JUL 26	16	129 16.8											
JUL 27	08	E46 21			I 46 26			PKP2 46 36					
JUL 27	11	131 22.8			*PP 31 33							1.6	
JUL 27	17	157 15.0			*PP 57 26								
JUL 27	21	D126 58.1			*PP 27 48							1.7	
JUL 27	21	E47 27			I 47 35								
JUL 28	06	109 53.0											
JUL 28	22	142 04.5	53 00		PP 45 49			*SS 53 58					
JUL 29	03	112 18.7											
JUL 29	08	D140 21.8	49 21		*PP 40 28			PKPPKP 68 37			LQ117 00		
JUL 29	09	104 49.2											
JUL 29	15	119 37.3											
JUL 29	15	121 11.8											

LILLEHAMMER (LHN) SEISMIC STATION BULLETIN - 1965													PAGE 13
YEAR	*****												
1965	P/PKP	S/SKS	SUPP. 1		SUPP. 2		SUPP. 3		LOG				
MTH DY	HR	M S	M S	PHASE	M S	PHASE	M S	PHASE	M S	M S	A/T		

JUL 30	07	132 07.9											
JUL 30	08	E21 10											
JUL 30	19	E15 19											
JUL 31	07	148 12.2											
AUG 01	15	D113 00.9	22 19		I 13 10			PCP 13 21			PP 15 28		
AUG 01	16	D150 53.0			I 50 59			PCP 51 18			PP 53 14		
AUG 01	20	D119 13.6											
AUG 02	00	104 09.7			I 04 15								
AUG 02	13	E39 55			I 40 12			PKP2 41 54			PP 44 41		
AUG 02	14	E46 49											
AUG 02	14	148 37.8											
AUG 02	16	155 40.2			I 55 48			I 56 30					
AUG 02	19	120 23.1											
AUG 02	19	E49 42											
AUG 03	07	D110 40.8											
AUG 03	07	E45 04											
AUG 03	12	E25 45			I 25 47								
AUG 03	14	101 37.3											
AUG 03	18	C119 02.4											
AUG 04	01	D118 05.7			*PP 18 31								
AUG 04	06	E59 17						E 59 25					
AUG 04	11	E53 58						E 54 05					
AUG 04	19							E 20 06					
AUG 04	21	C139 05.8											
AUG 05	00	E22 49	34 44		PKP 26 32			PP 27 42			PKKP 37 29	1.5	
AUG 05	12				I 11 15								
AUG 05	16	C109 23.2			I 09 53								
AUG 06	02	D109 23.8	18 20		I 09 27			LR 30 00					
AUG 06	18	C125 10.0			I 25 12								
AUG 06	19	109 01.0			I 09 21								
AUG 07	08				I 31 54								
AUG 10	17	E19 37			I 19 57								
AUG 11	04	E00 01			PKP 00 07			PP 02 38			PKS 03 36		
AUG 11	12	142 37.0										1.8	
AUG 11	18	E39 35											
AUG 11	19	E09 22											
AUG 11	20	E06 55											
AUG 11	20	E11 41			PKP 11 46			PKS 15 10					
AUG 11	20	E33 10			PKP 33 13			PKS 36 34			I 36 36		
AUG 11	21	E14 28			PKS 17 56								
AUG 11	22	E50 59			PKP 51 04			PP 53 37			PKS 54 26		
AUG 11	23	E18 05			PKP 18 09			PKS 21 16					
AUG 11	23	E23 00			E 24 42								
AUG 12	02	E40 45											
AUG 12	03	142 00.1			I 42 04								
AUG 12	08	120 45.0			PKP 20 56			I 21 10			PKS 24 21		
AUG 12	13	E15 52			PKP 16 04			PP 17 36					
AUG 12	17				E 20 09			I 20 39					
AUG 12	18	E24 05			PKP 24 20								
AUG 13	02	E25 58											
AUG 13	05	E00 07			PKP 00 20			PKS 03 01					
AUG 13	11				I 14 34								
AUG 13	11	E44 06			PKS 47 32								
AUG 13	12	E59 19			PKP 59 30			I 59 50			PKS 63 14		
AUG 13	13				I 32 45								

LILLEHAMMER (LHN) SEISMIC STATION BULLETIN - 1965 PAGE 14

YEAR	MTH	DY	HR	P/PKP	S/SKS	SUPP. 1	SUPP. 2	SUPP. 3	LOG
1965				M S	M S	M S	M S	M S	A/T
AUG 13	18			E15 38					
AUG 14	00			CI51 47.7					1.7
AUG 14	04			152 59.5					
AUG 14	06					E 10 58			
AUG 14	10					E 52 47			
AUG 14	11			E26 59					
AUG 14	11			DI50 35.6					
AUG 14	12					I 46 49			
AUG 14	12					I 57 16			
AUG 14	13			137 05.8					
AUG 14	17			DI22 39.3		I 22 43			
AUG 15	06			CI07 39.2					
AUG 15	10					I 33 59	I 34 10		
AUG 15	19			CI48 56.7					1.9
AUG 15	20			103 13.2		I 03 15			
AUG 16	04			E44 02	50 05	LO 52 47	LR 54 12		
AUG 16	07					I 25 18	I 25 29		
AUG 16	12			129 26.2		*PP 29 36			
AUG 16	12			DI32 09.3		*PP 32 19			1.3
AUG 16	12			CI47 06.9	55 20	*PP 47 19	PCP 47 40	PPP 51 18	1.8
AUG 16	15			127 26.8		I 27 31	I 27 37	I 27 53	
AUG 16	20			E00 39		*PP 00 46			
AUG 17	00			E29 49					
AUG 17	10			147 27.3		*PP107 17	I107 50		
AUG 17	13			E23 05					
AUG 17	13			CI27 05.5					
AUG 17	14			114 31.9					
AUG 17	16			E36 54		E 36 59	PP 39 12	PKS 40 21	
AUG 17	23			CI25 34.6					
AUG 18	15			CI10 47.3		I 10 52	PP 13 04	PKS 14 15	
AUG 19	19			CI58 43.6		PCP 58 52			
AUG 20	06			CI08 36.7	18 45	I 12 42	PP 13 10	PS 22 00	
AUG 20	09			E56 31		I 56 57			
AUG 20	10			100 36.8	07 04	I 00 50			
AUG 20	21			141 09.9		I 41 13	I 41 30	PKS 44 48	
AUG 21	01			E27 52		I 28 15			
AUG 21	13			E16 33	17 57	P* 16 54	I 17 28	SG 18 47	
AUG 21	15					PP 21 57			
AUG 21	16			101 08.8		I 01 39			
AUG 22	04			E08 28		E 08 39			
AUG 22	05			107 19.8					
AUG 22	10			DI59 26.7					
AUG 22	13			129 48.6					
AUG 22	23			E20 34		I 20 44			
AUG 23	14			DI13 56.8	18 03	I 14 01	PP 14 41	PPP 14 50	
AUG 23	19			158 30.2	69 02	I 58 33	PCP 58 36	PP 61 47	
AUG 23	21			E49 40		I 49 44			
AUG 23	23			124 54.0					
AUG 23	23			DI26 15.1		I 26 21			
AUG 24	01			CI08 54.9		I 09 12			
AUG 24	01			CI13 30.3		I 13 35			
AUG 24	01			CI16 41.0					
AUG 24	07			125 38.7		I 25 44	SKP 28 46		
AUG 24	11			CI14 34.8					
AUG 24	13			E22 15					

LILLEHAMMER (LHN) SEISMIC STATION BULLETIN - 1965 PAGE 15

YEAR	MTH	DY	HR	P/PKP	S/SKS	SUPP. 1	SUPP. 2	SUPP. 3	LOG
1965				M S	M S	M S	M S	M S	A/T
AUG 25	00			CI02 35.4			I 02 40		
AUG 25	05			103 36.6					
AUG 27	04			129 41.8	34 51	*PP 29 49	I 29 56		
AUG 27	18			CI33 08.0		*PP 33 18	PCP 33 28		
AUG 28	08			DI01 19.0					
AUG 28	18			150 28.1					
AUG 29	01			E58 13	68 44	PP 61 30			
AUG 29	13			E05 43		I 05 52			
AUG 29	13			DI44 27.2		I 44 34			
AUG 29	14			E15 36		SKP 18 19			
AUG 29	16			E09 39					
AUG 31	02			142 23.6		*PP 42 31			
AUG 31	07			CI35 43.3	40 30	I 35 44	PP 36 33	SS 42 00	
AUG 31	08			100 01.2		I 00 18			
AUG 31	08			E15 39		I 15 41	I 15 45		
AUG 31	10			157 12.8		I 57 29			
AUG 31	11					E 45 24			
AUG 31	19			DI55 55.9					
SEP 01	04			DI39 00.3		PCP 39 29			
SEP 01	05			CI07 10.3		I 07 17	*SPKP 08 01		
SEP 01	06			157 25.2		SKP 60 34			
SEP 02	00			131 00.2		*PP 31 10			
SEP 02	02			142 27.8					
SEP 02	04			CI37 26.7		*PP 37 37	LR 58 30		
SEP 02	05			E34 30		I 34 34			
SEP 02	07			111 40.3		I 11 48			
SEP 02	12			DI16 20.2		I 16 51			
SEP 02	13					I 32 24			
SEP 02	16					I 11 12			
SEP 02	18			DI14 43.2					
SEP 02	19			CI39 45.0		I 39 48			
SEP 03	16			129 40.3		*PP 80 52			
SEP 04	10			E30 52		I 30 55	*PP 31 03		
SEP 04	14			CI42 56.9	51 32	P 43 05	PP 45 30	SS 55 50	
SEP 05	17					E 19 19	I 19 35		
SEP 06	07			DI03 51.1	04 28	P* 03 58			
SEP 06	11			153 35.7		I 53 37			
SEP 06	20					E 42 49	I 42 57		
SEP 06	21			E26 15		E 26 19			
SEP 07	07			E10 07		PCP 10 14			
SEP 08	03			136 33.2		*PP 36 43			
SEP 08	11			126 57.8		I 26 59			
SEP 08	13					E 19 19	I 19 23		
SEP 09	04			CI50 47.4	59 21	I 50 54			
SEP 09	17					I 50 46			
SEP 10	10			E35 11		I 35 36	I 35 43		
SEP 10	15			DI12 53.7		I 12 56			
SEP 10	19			137 20.7					
SEP 11	04			E54 15					
SEP 11	07			E11 42		PP 13 12	SKKS 19 48	PKKP 22 27	
SEP 12	08			CI58 57.3		PP 60 16	SKKS 67 08	PKKP 69 15	1.6
SEP 12	22			107 00.8					
SEP 12	22			DI14 50.3	25 05	*PP 15 00	PP 17 57	PPP 19 42	1.8
SEP 13	00			110 04.4	10 29	PG 10 08	SG 10 32		
SEP 13	13			E18 09		*PP 18 16			

LILLEHAMMER (LHN) SEISMIC STATION BULLETIN - 1965											PAGE 16
YEAR	*****										*****
1965	*****										*****
MTH	DY	HR	P/PKP	S/SKS	SUPP. 1	SUPP. 2	SUPP. 3	LOG			
			M S	M S	PHASE M S	PHASE M S	PHASE M S	A/T			
SEP 16	13		E35 51								
SEP 16	14		I03 19.0		I 03 22						
SEP 17	04		D107 18.6		I 07 25						
SEP 17	11		C126 38.6	37 28	I 26 40	*PP 27 25	I 27 58				
SEP 17	12		I00 07.6								
SEP 17	13		E10 54		*PP 11 05						
SEP 17	13		I32 35.8		*PP 32 47						
SEP 17	14		D134 16.6		*PP 34 28						
SEP 17	15		E09 04		*PP 09 16						
SEP 17	15		C130 14.2		*PP 30 25	PCP 30 35					
SEP 17	16		C132 57.2	42 55	I 33 05	PP 35 44					
SEP 17	17		D110 56.6								
SEP 17	20		E54 16		*PP 54 28						
SEP 18	20		E56 34	64 23							
SEP 21	01		I50 02.1		*PP 50 50						
SEP 21	03		E34 25		E 34 44						
SEP 22	15				I 55 23						
SEP 22	20		E20 29		E 20 41						
SEP 22	22		C119 38.3	29 35	I 19 40	*PP 19 50	PCP 19 53				
SEP 24	11				I 59 09						
SEP 25	14		I48 38.6								
SEP 25	14		E53 52								
SEP 25	15		C104 58.5								
SEP 25	15		I55 53.3		I 55 57						
SEP 26	00		E48 48								
SEP 26	21		E52 46		PP 54 18	PKKP 64 24					
SEP 27	01		D119 23.8								
SEP 27	05		D120 01.8		I 20 09						
SEP 27	15		E00 11		I 01 17						
SEP 27	20		I50 41.7								
SEP 28	05		E26 18		I 26 21	SKKKS 44 05					
SEP 28	07				E 59 58						
OCT 01	13		I40 39.6		PKP 40 49	SKP 43 32					
OCT 01	18		I43 24.2								
OCT 01	20		I04 07.0								
OCT 01	22		I53 20.6		PP 55 05						
OCT 02	09		D109 22.1								
OCT 02	12		D119 43.3		*PP 19 58						
OCT 02	13				I 24 05						
OCT 02	19		I43 32.9								
OCT 03	08		E11 51								
OCT 03	10		I57 07.1		I 57 09	I 57 23					
OCT 03	14		D156 14.2	64 46	PCP 56 47	PCS 60 42	I 78 42				
OCT 03	16		I33 53.3		PP 35 56	PKS 37 09					
OCT 03	20		I24 39.0								
OCT 04	00		I13 17.5								
OCT 04	00		I32 02.1								
OCT 04	01		E36 29								
OCT 04	01		I38 01.5								
OCT 04	03		I32 04.5								
OCT 04	04		I23 58.6								
OCT 04	06		I35 32.3								
OCT 05	00		I26 15.5								
OCT 05	01		I22 17.8								
OCT 05	09		I56 00.8		I 57 07						

LILLEHAMMER (LHN) SEISMIC STATION BULLETIN - 1965											PAGE 17
YEAR	*****										*****
1965	*****										*****
MTH	DY	HR	P/PKP	S/SKS	SUPP. 1	SUPP. 2	SUPP. 3	LOG			
			M S	M S	PHASE M S	PHASE M S	PHASE M S	A/T			
OCT 06	08		I13 27.2								
OCT 06	15		I42 52.8								
OCT 06	18		I08 59.6	13 29	*SP 43 56	PP 44 34					
OCT 06	22		I49 22.7		I 68 22						
OCT 07	03		D148 38.2	58 50							
OCT 07	07		I16 57.5		SKP 20 03						
OCT 07	09		E38 38		I 40 07						
OCT 07	14		I17 00.7								
OCT 08	04		E15 52								
OCT 08	06		I07 19.1		I 07 31	I 07 36	PP 08 45				
OCT 08	16		I43 26.8								
OCT 08	22		I19 17.5								
OCT 09	04		I43 22.7								
OCT 09	05		I03 58.9								
OCT 09	09		E49 08								
OCT 09	11			11 52							
OCT 09	13		I35 31.5		*PP 35 48						1.2
OCT 10	00		I46 50.5								
OCT 10	10		I33 04.1		*PP 33 14						
OCT 10	16		I01 38.1								
OCT 10	17		I44 35.0		I 44 58						
OCT 11	05		I05 27.0		E 05 38						
OCT 11	20		I12 34.6								
OCT 12	07		I06 46.1								
OCT 12	08		I26 19.9								
OCT 12	13		I51 20.4	60 00	P 51 23	I 51 29	*PP 51 33				
OCT 12	14		I33 56.7								
OCT 12	15		I08 37.3								
OCT 12	18				I 09 12	I 11 49					
OCT 12	18		I39 34.6								
OCT 13	03		I56 55.4								
OCT 13	11				I 44 01	I 45 07					
OCT 13	15		I05 47.4								
OCT 13	15		I32 56.3								
OCT 13	15		I54 34.5								
OCT 13	23		I06 06.3								
OCT 14	08		D113 56.5								
OCT 14	17		I52 20.8								
OCT 15	14		I30 14.8								
OCT 15	17				I 08 09	I 10 44					
OCT 16	14		I35 24.5								
OCT 16	20		E12 07								
OCT 18	10		D129 48.2		*PP 29 55						
OCT 18	10		I44 11.5								
OCT 18	14		E38 05								
OCT 18	22		I04 06.1	15 11	PP 08 28	PS 18 20					1.4
OCT 18	23		D103 10.7								
OCT 19	09		I11 34.0								
OCT 19	13		I04 21.5								
OCT 19	20		C159 31.0	68 00	I 59 32	*PP 59 44	SCS 68 50				
OCT 20	03		I54 00.2								
OCT 20	11		I19 06.0								
OCT 20	12		I05 32.4								
OCT 20	19		I54 17.4								
OCT 21	00		I06 50.1		I 07 07						

LILLEHAMMER (LHN) SEISMIC STATION BULLETIN - 1965 PAGE 20

YEAR	MTH	DY	HR	P/PKP	S/SKS	SUPP. 1	SUPP. 2	SUPP. 3	LOG
1965				M S	M S	PHASE M S	PHASE M S	PHASE M S	A/T
NOV 26	00			I 29 18			*PP 29 31		
NOV 26	07			E 05 49					
NOV 26	09			I 09 08.2					
NOV 27	03			I 16 24.6			*PP 16 42		
NOV 27	08			D154 16.9			I 54 20	PP 56 51	
NOV 27	11			E 08 42					
NOV 27	12			I 20 46.0					
NOV 28	05			C131 41.6			PCS 38 35		
NOV 28	13			C111 04.0					
NOV 29	09			I 10 51.7					
NOV 29	14			E 29 41					
DEC 01	10			E 37 13					
DEC 02	06			I 09 38.3			E 09 50		
DEC 02	06			E 51 27					
DEC 02	13						E 26 05		
DEC 03	15			C124 32.9					
DEC 03	21			C125 41.0			I 25 46	*PP 25 51	PCP 27 27
DEC 04	02			C122 51.0			I 22 54	PCP 23 12	
DEC 04	16			E 45 55			I 45 58		
DEC 05	18			C125 33.3	34 25		*PP 25 45	PCP 25 59	LQ 42 03 2.0
DEC 05	22			I 12 21.0					
DEC 06	01			D133 35.3			*PP 33 47		1.2
DEC 06	08			C105 13.1					1.7
DEC 06	11			E 47 38					
DEC 06	22			E 00 34			I 00 35		
DEC 07	00			I 37 18.5					1.0
DEC 07	08			E 51 25.4					
DEC 07	14			E 58 46			E 58 52		
DEC 07	22			C137 46.3					
DEC 08	18			C124 58.3	32 25		PKP 25 06	I 25 17	PKS 28 58 1.3
DEC 09	06			E 20 19	30 48		I 20 24	PP 23 55	PKKP 37 32
DEC 09	13			E 30 58			I 31 06		
DEC 09	20			I 36 26.5					
DEC 10	11			E 49 12			I 49 16		
DEC 10	22			I 12 17.2					1.3
DEC 11	19			E 18 00					
DEC 11	22			E 59 39			PKP2 59 50		1.6
DEC 12	07			E 40 34					
DEC 12	10			C135 02.7			I 35 19		
DEC 12	13			D145 24.5					
DEC 12	19			D135 00.3					
DEC 13	05			C109 23.4					
DEC 13	05			D114 50.0					
DEC 13	05			D156 22.8			PCP 56 42		
DEC 13	11			C103 15.2	12 33		*PP 03 28	PCP 03 40	PP 06 27 1.7
DEC 13	14			E 57 18	66 36		PCP 57 40	I 57 55	PP 60 27
DEC 13	17			E 49 01					
DEC 13	22			E 48 42					
DEC 13	23			E 04 24					
DEC 14	00			D115 13.0					1.4
DEC 14	08			E 18 49	19 54				
DEC 14	20			I 14 36.8					1.2
DEC 15	04			I 54 35.6			PCP 54 57		
DEC 15	10			E 33 25			PCP 33 52		
DEC 15	12				11 58				

LILLEHAMMER (LHN) SEISMIC STATION BULLETIN - 1965 PAGE 21

YEAR	MTH	DY	HR	P/PKP	S/SKS	SUPP. 1	SUPP. 2	SUPP. 3	LOG
1965				M S	M S	PHASE M S	PHASE M S	PHASE M S	A/T
DEC 15	21			E 03 22					
DEC 15	23			E 17 57	28 32		I 18 01	*PP 18 05	PP 21 18
DEC 16	23			E 24 51			I 25 02	PP 27 44	
DEC 17	21			C138 26.0					1.3
DEC 18	08			E 41 52			I 42 08		
DEC 18	09			E 26 26			I 26 29		
DEC 18	13			D131 31.8					
DEC 19	19						I 29 36		
DEC 20	00			C113 12.5	17 28		I 13 14	PP 13 51	I 21 05
DEC 20	00			C135 54.5			I 35 58		
DEC 20	01						I 10 12		
DEC 20	06						E 14 38		
DEC 20	07			C123 16.1					
DEC 21	00			C142 27.1			I 42 36	*PP 42 43	
DEC 21	08			E 53 28			*PP 53 40		
DEC 21	10				04 36		E 04 27		
DEC 21	10			D157 34.8			I 57 39		
DEC 21	16			C109 55.2					1.3
DEC 21	19			I 41 36.7					1.1
DEC 22	00			D139 24.4	47 58		*PP 39 33	PCS 43 50	1.9
DEC 22	00			D149 01.0					1.2
DEC 22	00			E 50 46					
DEC 22	01			E 05 21					
DEC 22	03			E 32 43			I 32 44	*PP 32 51	
DEC 22	07			E 04 56					
DEC 22	07			I 37 53.7			I 37 55	*PP 38 06	1.6
DEC 22	19			C151 27.3	59 18		*PP 51 41	PKPKP 80 54	I 81 09
DEC 22	23			E 36 00			*PP 36 08		
DEC 23	02			I 10 01.1					1.0
DEC 23	02						E 36 06		
DEC 23	06			E 08 12			I 08 16		
DEC 23	11			E 18 07					
DEC 23	15			D133 23.7			I 33 24	PP 33 51	
DEC 23	20			E 57 22			PP 59 41	PPP 61 02	
DEC 24	04			D127 38.1			*PP 27 51		1.3
DEC 24	05			D107 18.6					1.3
DEC 25	03			I 16 02.0			PKP 16 10	PP 18 47	
DEC 25	12						I 13 58		
DEC 25	12			I 20 32.4					1.0
DEC 25	14			C116 05.6					1.0
DEC 25	15			D115 51.8					1.0
DEC 25	17			C151 24.8			I 51 30		1.8
DEC 25	19			I 38 52.5			I 38 57		
DEC 26	04			E 11 48					
DEC 26	13						E 30 15		
DEC 26	15			C141 15.8					
DEC 26	18			D124 08.2					1.1
DEC 27	04			C119 04.3			I 19 09	*PP 19 15	PCP 19 20 1.3
DEC 27	06			E 53 04					
DEC 28	20			C144 12.1			PCP 44 18	*PP 44 26	PP 47 34
DEC 30	02			C117 11.6			I 17 17		
DEC 30	17			C107 59.7			I 08 04		
DEC 31	09			D144 16.0					