

1960
garry

boved
g.B.

Uppsala

PRELIMINARY

SEISMOLOGICAL BULLETIN

UPPSALA, KIRUNA, SKALSTUGAN, and GÖTEBORG

Uppsala (Up): 59°51.5'N, 17°37.6'E; h = 14 m.
Kiruna (K1): 67°50.4'N, 20°25.0'E; h = 390 m.
Skalstugan (Sk): 63°34.8'N, 12°16.8'E; h = 580 m.
Göteborg (Gb): 57°41.9'N, 11°58.7'E; h = 66 m.

January 1-31, 1960

1960				1960			
Jan 1	Up	iP	04 22 23	Jan 2	M	N	2.4 23
		i	04 22 34	cont.	M	Z	2.2 22
	K1	iP	04 21 33		K1	eL	13 13
	Sk	iP	04 22 12				microns sec
	Kurile Islands.				M	E	2.6 19
" 1	Up	iP	04 29 56		South Atlantic Ocean, west of Bouvet Island.		
	Bonin Islands.				Magn. = 6.1 (Up, K1).		
" 1	K1	iP	06 10 08	" 2	Up	iP	23 05 40
	Mariana Islands.			" 2	Up	iP	23 20 43
✓ " 1	K1	iP	23 21 54		K1	iP	23 20 44
	Near east coast of Kamchatka.				Sk	iP	23 20 59
✓ " 2	Up	iP	05 19 17	" 3	Up	iP	09 35 03
			microns sec	✓ " 3	Up	iP	11 28 24
	P	Z'	0.1 0.6	" 3	✓ Up	iP	11 31 58
	K1	iP	05 19 19		i		11 32 04
			microns sec		i(Lgl)		11 45 41
	P	Z'	0.9 2.2		iLgl		11 46 12
	Sk	iP	05 19 33				microns sec
		i	05 19 46		P	Z'	0.5 0.6
	Gb	iP	05 19 30		M	E	1.4 11
	Off coast of Sumatra.				M	N	2.6 10
✓ " 2	Up	iP	07 09 59		M	Z	2.0 11
			microns sec	✓ K1	iP		11 31 45
	P	Z'	0.1 1.1		i		11 31 51
	K1	eP	07 08 58				microns sec
	Gb	iP	07 10 13 C		P	Z'	0.3 0.7
	Near east coast of Kamchatka.				M	E	2.0 13
" 2	Up	iP	10 27 49		M	N	3.2 14
" 2	Up	eL	13 10	✓ Sk	iP		11 32 14
			microns sec		i		11 32 20
	M	E	1.8 19		iPP		11 33 58
cont.					i		11 34 04
					iLgl		11 47 29
				✓	D = 4950 km = 44½°		
				cont.			

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960
Jan 3
cont.

Gb 1P 11 32 30
iPP 11 34 15
i 11 34 24
eL1 11 46 23
oLgl 11 48 00
i 11 48 23⁰
D = 5150 km = 46 $\frac{1}{2}$ ⁰.

Sinkiang Province, China.

Magn. = 6.7 (Up, Ki).

The phase 6 sec after P has much larger amplitudes than P proper (only these larger amplitudes are given here). Clear Lgl phases.

" 3 Up 1P 11 48 32
i 11 48 38
Ki 1P 11 47 35
i 11 47 42
Sk 1P 11 47 29
Gb eP 11 48 00
i 11 48 23

South Central Alaska.

" 3 Up 1P 14 57 37

" 3 Up 1P 20 23 52 D
iS 20 27 24
microns sec
P Z' 0.4 0.6
S E 2.2 3
S N 3.3 3
S Z' 1.2 1.5
Ki 1P 20 25 06 D
i 20 31 13
i 20 31 27

microns sec

P Z' 0.5 1.2
M E 0.9 12

Sk 1P 20 24 27 D
iS 20 28 38
Gb 1P 20 23 27 D
iS 20 26 44
i 20 26 51

Tyrrhenian Sea (h = 250 km).

Magn. = 6.2 (Up, Ki).

" 3 Up 1P 21 31 00
i 21 31 09
microns sec
P Z' 0.1 0.7
Ki 1P 21 30 13
Sk eP 21 31 00

Kurile Islands (h = 150 km).

1960

Jan 4 Up 1P 04 07 06 C
i 04 07 15
microns sec
P Z' 0.1 0.5
Ki 1P 04 07 02
Sk 1P 04 07 23
Gb 1P 04 07 24
India - E. Pakistan border.

" 4 Up 1P 06 25 43
eS 06 33 13
microns sec
S N 2.4 20
M E 3.4 16
M N 2.4 15
M Z 2.3 20
(D = 5900 km = 53⁰).

Ki eP 06 26 37
microns sec
M E 3.4 18
M N 2.8 16
M Z 1.6 16
Sk 1P 06 26 16 D

" 4 Up 1P 09 20 19

" 4 Sk 1(P) 10 04 28

" 4 Sk 1P 10 54 51
i 10 54 55

" 4 Sk 1P 11 13 48

" 4 Sk 1P 11 19 50
i 11 19 53

Seismic?

" 4 Up 1P 12 55 36 D
i 12 55 38
iS 12 58 24
iLg2 13 00 27
microns sec
P Z' 0.4 0.5
S Z' 0.4 0.5
M E 4.9 4
M N 6.0 6
M Z 1.9 10

D = 1700 km = 15 $\frac{1}{2}$ ⁰.

Ki 1P 12 57 02
i 12 57 16
iS 13 01 14
iLgl 13 03 57
i(Lgl) 13 04 05

cont.

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960
Jan 4
cont.

	1		13 04 19
			microns sec
	P	Z'	0.2 0.8
	M	E	4.0 8
	M	N	0.8 12
	M	Z	1.3 12
	D = 2600 km = 23 $\frac{1}{2}$ °		
✓	Sk	1P	12 56 34 D
	i		12 56 37
	iS		13 00 14
	iLgl		13 02 48
	D = 2300 km = 20 $\frac{1}{2}$ °		
✓	Gb	1P	12 55 34
	iS		12 58 20
	iPoP		13 00 37
	i		13 00 54
	D = 1700 km = 15 $\frac{1}{2}$ °		

Rumania. Magn. = 5.9(Up, Ki).
Clear channel waves.

"	4	Ki	1P	13 46 16
		i		13 46 28
		Luzon Island, Philippine Islands.		

✓	4	Up	1P	15 10 03
✓		Ki	1P	15 10 10

"	4	Up	i(P)	20 32 22
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"	5	Up	1P	06 10 56
		iPP		06 11 09
		D = 1900 km = 17°		
	Ki	1P		06 12 19
	i			06 12 42
	eS			06 16 44
	D = 2800 km = 25°			
	Sk	eP		06 11 49
	i			06 11 53
	iPP			06 12 07
	D = 2400 km = 21 $\frac{1}{2}$ °			
	Gb	1P		06 10 57
	Rumania.			

"	6	Up	1P	00 33 15
---	---	----	----	----------

"	6	Ki	1P	15 22 29
		The Alps, Northern Italy.		

"	6	Up	1P	18 55 41 D
				microns sec
	P	Z'		0.1 0.5
	Ki	1P		18 55 34 D
	Sk	1P		18 55 56 C
	Burma.			

1960

Jan	6	Up	1P	23 04 39
		Ki	1P	23 05 14
		Sk	1P	23 05 14 D

"	7	Ki	1P	08 01 10
---	---	----	----	----------

"	7	Up	1P	08 27 23
---	---	----	----	----------

				microns sec
	P	Z'		0.1 1.0
	M	E		1.0 17
	M	N		1.5 19
	M	Z		1.4 18
Ki	1P			08 27 24
				microns sec
	P	Z'		0.1 1.0
	M	E		1.4 17
	M	N		1.1 20
	M	Z		1.2 17
Sk	1P			08 27 38
Gb	1P			08 27 41

Nicobar Islands.
Magn. = 5.6 (Up, Ki).

"	7	Up	eSKS	13 54 39
				microns sec

	SKS	E		0.7 7
	SKS	Z		1.2 8
	M	E		2.3 19
	M	N		4.1 20
	M	Z		5.5 20
✓	Ki	1PKP		13 47 20
	i			13 47 36
	e			14 06 35
				microns sec
	PKP	Z'		0.2 1.5
	M	E		2.6 21
	M	N		2.5 18
	M	Z		3.3 18

Sandwich Islands.
Magn. = 6.2 (Up, Ki).

"	7	Ki	1P	14 55 09
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"	7	Ki	1(P)	16 55 12
		Sk	1P	16 56 09

"	7	Up	1(P)	18 24 11
---	---	----	------	----------

"	7	Up	1P	22 45 07
---	---	----	----	----------

✓	7	Up	1P	23 29 27
		i		23 29 31
		iPa		23 35 55
				microns sec
	P	Z'		0.1 0.6

cont.

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Goteborg

1960

Jan 7
cont.

M	E	1.6	21
M	N	2.0	20
M	Z	1.9	20
✓ Ki	1P		23 29 22
	i		23 29 28
microns sec			
P	Z'	0.2	0.9
M	E	1.9	17
M	N	2.0	20
M	Z	1.6	16
✓ Sk	1P		23 29 43
✓ Gb	1P		23 29 38
	i		23 29 42

Nicobar Islands.
Magn. = 5.8 (Up, Ki).

"	8	Up	1PKP		02 53 58
		Ki	1PKP		02 54 14
Sandwich Islands.					

✓	"	8	Ki	1PKP		11 48 25 D
microns sec						
			PKP	Z'	0.2	1.5
Sandwich Islands.						

"	8	Up				-
microns sec						
		M	E	1.5	16	
		M	N	1.0	17	
		M	Z	2.1	19	
		Ki	1PKP		15 05 02	
microns sec						
		PKP	Z'	0.1	1.0	
		M	E	1.2	19	
		M	N	0.9	18	
		M	Z	1.4	20	
		Sk	1PKP		15 05 00	
Sandwich Islands.						

"	8	Gb	e(P)		16 03 00
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"	8	Gb	1P		22 05 40 C
---	---	----	----	--	------------

"	9	Up	1P		03 36 12
			i		03 36 58

"	9	Ki	1P		04 01 27
---	---	----	----	--	----------

✓	"	9	Up	1P		04 04 02
			eS			04 08 24
microns sec						
		S	E	1.0	8	
		S	N	2.4	8	
		M	E	3.7	18	
		M	N	5.1	17	
		M	Z	4.7	15	
					0	
D = 2650 km = 24°.						

cont.

1960

Jan 9
cont.

✓	Ki	1P		04 05 08
		eS		04 10 15
		e(Lgi)		04 14 25
microns sec				
	P	Z'	0.2	0.9
	S	N	0.7	15
	M	E	2.6	12
	M	N	1.9	17
	M	Z	1.8	17
D = 3450 km = 31°.				
✓	Sk	1P		04 04 42
✓	Gb	1P		04 03 57
Southwestern Turkey.				

"	9	Up	1P		04 40 42 C
			i		04 40 49
microns sec					
		P	Z'	0.1	0.6
		Sk	1P		04 40 37 C

"	9	Ki	1P		06 35 06 D
		Sk	1(P)		06 37 00

"	9	✓ Up	1P		07 31 23 C
			1PP		07 32 56
			1PoP		07 33 14
			1S		07 37 08
			1!		07 39 50
microns sec					
		P	Z'	0.9	0.5
		PP	E	1.1	1
		PP	Z'	0.7	0.8
		S	E	0.5	3
		S	N	1.1	5
		M	E	1.4	13
		M	N	1.9	9
		M	Z	2.0	13
(D = 4450 km = 40°).					

✓	Ki	1P		07 31 32 C
		i		07 32 48
		1PP		07 33 11
		i		07 33 54
		1S		07 37 32
		i		07 40 26
		1SS		07 40 54

microns sec					
	P	Z	1.9	4	
	P	Z'	3.1	1.2	
	PP	Z'	1.6	1.7	
	S	E	1.2	5	
	S	N	0.8	8	
	M	E	1.7	10	
	M	N	2.9	9	
	M	Z	1.5	8	
(D = 4650 km = 42°).					

cont.

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960

Jan 13 Up

1P 15 54 26
e 15 57 56
iPKP 15 58 19
iPP 15 58 41
iSKS 16 04 53
iS 16 06 04
e(PS) 16 07 38
iSS 16 13 14

microns sec

P Z 2.4 11
P Z' 0.1 1.0
PP E 2.6 10
PP Z 4.0 10
PP Z' 0.2 1.3
SKS E 18 17
SKS N 2.1 7
S N 52 18
M E 100 25
M N 110 29
M Z 130 24

(D = 11550 km = 104°).

Ki

iPKP 15 54 36
i 15 54 47
i 15 57 21
iPKP 15 58 33
iPP 15 58 53
iSKS 16 05 06
iS 16 06 27
ipS 16 07 16
iPKKP 16 10 09
i 16 10 26

microns sec

P E 0.8 11
P Z 1.9 11
P Z' 0.7 2.0
PKP E 0.8 7
PP E 3.2 8
PP Z 4.9 9
PP Z' 2.7 3.0
SKS E 21 15
S N 42 12
PKKP Z' 0.1 1.0
M E 66 21
M N 53 22
M Z 72 20

(D = 11800 km = 106°).

Sk

iPKP 15 54 17
i 15 54 19
i 15 57 43
ePKKP 16 10 18
iP'P' 16 18 38
Gb iPKP 15 54 10
iPP 15 54 40
iPKP 15 58 00

cont.

1960

Jan 13 Southern Peru. h = 130 km
cont. (Up, Ki, Gb). Magn. = 7.5
(Up, Ki).

Well developed G-waves,
which have passed around
the earth several times,
were recorded, especially
well at Uppsala.

" 13 Up 1P 16 40 44 C
i 16 40 53
microns sec
P Z' 0.4 0.7
Ki iPKP 16 39 51 C
i 16 40 11
microns sec
P Z' 0.3 1.0
Sk iPKP 16 40 23 C
i 16 40 30
Gb iPKP 16 41 00
i 16 41 11

Aleutian Islands.

" 13 Sk eP 18 45 46

" 13 Ki iPKP 18 50 29

" 13 Ki c(P) 21 52 15
e 21 52 35
Local?

" 14 Up iPKP 02 53 35
i 02 53 48
Ki iPKP 02 53 37 C
i 02 53 52
Sk iPKP 02 53 51
i 02 54 06

Near coast of northern
Sumatra.

" 14 Up iPKP 04 47 15
Sk i(P) 04 49 12

" 14 Ki e(P) 09 08 43
i(Sg) 09 09 02

" 14 Up iPKP 10 37 21 C
i 10 37 31
microns sec
P Z' 0.1 0.6
Ki iPKP 10 36 43 C
iPKP 10 37 08
iPP 10 39 10
microns sec
P Z' 0.3 1.2

cont.

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960						1960				
Jan 9	Sk	iP	07 31 48	C		Jan 11	Ki	iP	12 16 36	
cont.		iPP	07 33 29						microns sec	
	Gb	iP	07 31 39					P	Z'	0.1 1.0
		i	07 33 13			"	11	Sk	iPKP	18 09 37
		iPP	07 33 22							Kermadec Islands.
			Hindu Kush (h = 150 km). Magn. = 6.9 (Up, Ki).			"	12	Up	iP	02 04 34
"	9	Up	iP	15 41 57						microns sec
		Sk	eP	15 41 53				M	E	2.6 22
								M	N	5.1 21
"	9	Ki	iP	17 58 54				M	Z	1.5 19
			Unimak Island region.				Ki	iP		02 04 09
								i		02 04 23
"	9	Up	eP	22 52 10						microns sec
								P	Z'	0.1 1.0
"	10	Sk	iP	00 36 10				M	E	1.5 17
								M	N	1.3 19
"	10	Ki	iP	23 41 32				M	Z	0.8 13
								Sk	iP	02 04 38
"	11	Up	eP	02 39 31				Gb	iP	02 05 02
			microns sec							Near east coast of Formosa.
		M	E	0.8 15						Magn. = 5.8 (Up, Ki).
		M	N	0.8 13						
		M	Z	1.2 15						
		Ki	iP	02 39 01	D	"	12	Up	i	03 28 41
			microns sec							microns sec
		M	E	0.7 14				M	E	1.9 20
		M	N	0.6 18				M	N	2.4 20
		M	Z	0.9 15				M	Z	2.6 20
		Sk	eP	02 39 31				Ki	iPKP	03 28 18
			Ryukyu Islands.							microns sec
								M	E	2.4 18
								M	N	1.7 18
								M	Z	3.3 18
"	11	Up	eP	03 03 40						Sandwich Islands region.
		Ki	iP	03 03 26						Magn. = 6.1 (Up, Ki).
			Off coast of Luzon, Philippine Islands.							
"	11	Up	-	-		"	12	Up	iP	08 13 55
			microns sec					Sk	iP	08 13 48
		M	E	1.4 15		"	12	Up	iP	10 18 37
		M	N	3.3 18		"	12	Up	iP	10 33 41
		M	Z	1.8 14		"	12	Up	iP	10 33 41
		Ki	iP	03 21 31		"	12	Up	i(P)	10 48 31
		eSoS		03 31 28		"	12	Up	i(P)	10 48 31
			microns sec			"	12	Ki	iP	21 55 25
		P	Z'	0.1 1.5		"	12	Ki	iP	21 55 25
		M	E	1.7 16		"	13	Up	iP	01 34 24
		M	N	2.0 17		"			i	01 34 35
		M	Z	1.4 17					Ki	iP
			D = 7800 km = 70°							01 34 05
		Sk	iP	03 21 48		"	13	Ki	iP	05 18 30
			Near south coast of Burma. Magn. = 5.7 (Up, Ki).			"	13	Up	iP	12 57 54

Up = Uppsala, Ki = Kiruna, Sk = Skälstugan, Gb = Göteborg

1960

Jan 14 M E 0.8 15
oont. D = 7350 km = 66°

Sk 1P 10 37 16 C
1PP 10 39 50
D = 7900 km = 71°

Gb 1P 10 37 42
Honshu, Japan.

" 14 Ki 1P 12 58 30
Near east coast of
Kamohatka.

" 14 Up 1(P) 20 48 50
Ki e(P) 20 45 48
Possibly two different
shocks.

" 14 Up 1P 21 06 16
Ki 1P 21 05 31
microns sec
P Z' 0.1 1.0
Kurile Islands.

" 14 Up -
microns sec

M E 1.3 19
M N 2.4 23
M Z 0.9 19
Ki 1P 21 36 31
Sk 1P 21 36 04
Atlantic Ocean.

" 15 Up 1PP 09 48 32
1 09 48 45
i(SIKKS) 09 55 13
i(S) 09 56 08
1PS 09 57 43

microns sec
PP Z 0.8 4
(S) N 2.1 7
M E 13 22
M N 7.3 19
M Z 19 22
(D = 11550 km = 104°).

Ki 1P 09 44 26
i(S) 09 56 27
1PS 09 58 08

microns sec
M E 12 19
M N 4.0 17
M Z 8.6 20
(D = 11800 km = 106°).

Gb i(P) 09 44 19
i(PKP) 09 47 54
1PP 09 48 24

oont.

1960

Jan 15 Near coast of southern Peru
oont. (h = 150 km).
Magn. = 6.7 (Up).

" 15 Ki 1P 10 47 10
Gb 1P 10 45 59

" 15 Up i(P) 20 32 01

" 16 Sk 1P 09 32 33

" 16 Up 1PKP 12 49 11 D
iSKP 12 52 03
Gb 1PKP 12 49 22
Fiji Islands region (h=600
km).

" 16 Ki 1PKP 15 52 13
Loyalty Islands region.

" 16 Ki 1PKP 18 57 14
Sk 1PKP 18 57 25
New Hebrides Islands region
(h = 200 km).

" 16 Up 1P 20 59 03 D
microns sec
P Z' 0.4 1.0
Ki 1P 20 58 06 D
microns sec
P Z' 0.6 0.8
Sk 1P 20 58 34
Gb 1P 20 59 08 D
1 20 59 36
Alaska (h = 150 km).

" 16 Up 1P 21 03 44
microns sec
P Z' 0.1 1.2
Ki 1P 21 03 10
microns sec
P Z' 0.1 1.0
Sk 1P 21 03 28

" 17 Up 1P 04 30 22
Ki 1P 04 29 40 C
microns sec
P Z' 0.1 1.0
Sk 1P 04 30 30
Gb 1P 04 30 43
Off coast of northern
Honshu, Japan.

" 17 Up 1P 15 13 24 C

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960				1960			
Jan 18	Ki	1P	02 23 22	Jan 19	Ki	1P	16 22 31 D
" 18	Up				Volcano Islands (h= 100 km).		
			microns sec	" 19	Sk	1(P)	17 51 34
		M	E 1.3 23	" 19	Ki	eP	21 33 01
	✓	Ki	1 09 18 19		Southwestern Turkey.		
			Off south coast of	" 20	Up	1P	01 14 25
			Mindanao.		Ki	1P	01 15 03
" 18	✓	Up	1P 19 42 51		Mid-Atlantic Ocean.		
	✓	Ki	1P 19 42 52	" 20	Ki	1(P)	14 50 05
			microns sec	" 20	Up	1P	18 25 13 C
		P	Z' 0.1 1.2		Ki	e(P)	18 25 28
	✓	Sk	1P 19 42 37 D	" 21	Up	1P	10 36 11
		i	19 42 45	" 21	Up	eL	11 41
			Off coast of Panama				microns sec
			(h = 100 km).		M	N	1.6 22
" 18	Up	1P	22 09 11		Ki	eL	11 51
	Ki	1P	22 09 29				microns sec
	Sk	1P	22 09 39		M	E	0.7 17
			Southern W. Pakistan.		Fiji Islands (h = 600 km).		
" 19	Up	1P	02 27 30	" 22	✓	Up	1P 02 25 21 C
			microns sec			i	02 25 33
		P	Z' 0.3 1.0				microns sec
		M	N 2.0 24		✓	P	Z' 0.1 0.9
		M	Z 3.0 23		✓	Ki	1P 02 24 37
	✓	Ki	1P 02 26 39 D				microns sec
			microns sec		✓	P	Z' 0.1 1.0
		P	Z' 0.2 1.3		✓	Sk	1P 02 25 12
		M	E 2.0 21		✓	Gb	1P 02 25 41
		M	N 1.4 20				Near south coast of
		M	Z 2.4 20				Hokkaido, Japan.
	✓	Sk	1P 02 27 14 C	" 22	Up	1(P)	11 32 47
		i	02 27 40			i	11 32 57
	✓	Gb	1P 02 27 48	" 22	✓	Up	1P 13 49 36
			Near southeast coast of		✓	Ki	1P 13 49 22
			Kamchatka.				Molucca Passage.
" 19	Up	1PKP	09 33 28	" 22	Up	1P	13 54 48
			microns sec	" 22	Up	1(P)	23 02 01
		PKP	Z' 0.1 0.5	" 23	Up	1P	01 31 50 D
	✓	Ki	e(PKP) 09 33 06	" 23	✓	Up	ePP 04 59 34
		1SKP	09 35 57			i	05 03 38
			microns sec			1PS	05 08 24
		SKP	Z' 0.4 2.0				cont.
	✓	Sk	ePKP 09 33 24				
	✓		eSKP 09 36 22				
	✓	Gb	1PKP 09 33 37 D				
		i	09 33 49				
		i	09 36 06				
			South of Fiji Islands				
			(h = 600 km).				

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960
Jan 23
cont.

microns sec
 M E 5.5 22
 M N 7.5 21
 M Z 6.5 20
 (D = 11550 km = 104°).
 ✓ Ki 1PP 04 58 55
 1SKS 05 05 28
 ePS 05 07 49
 microns sec
 PP Z 1.1 7
 SKS E 1.9 8
 M E 16 21
 M N 4.8 20
 M Z 10 21
 D = 11150 km = 100½°.
 ✓ Sk 1P 04 55 00
 1 04 55 07
 e(PKP) 04 59 22

Ceram Island region.
Magn. = 6.6 (Up, Ki).

" 23 ✓ Sk 1SKP 06 45 33
Fiji Islands region
(h = 400 km).

" 23 ✓ Up 1PP 07 49 33
 1SKS 07 55 53
 microns sec
 M E 4.5 23
 M N 6.4 21
 M Z 4.5 23
 (D = 11450 km = 103°).
 ✓ Ki ePP 07 49 08
 ePKS 07 53 05
 eSKS 07 55 38
 microns sec
 PP E 1.0 6
 PP Z 0.7 8
 SKS E 2.6 11
 M E 15 21
 M N 4.2 22
 M Z 8.1 20
 (D = 11100 km = 100°).

✓ Sk 1P 07 45 25
1PKP 07 49 43
Ceram Island region.
Magn. = 6.5 (Up, Ki).

" 23 Up 1(P) 12 10 03
i 12 10 08

1960
Jan 23 ✓ Up 1PP 18 14 45
 1! 18 15 29
 eSKS 18 21 21
 ePS 18 23 57

microns sec
 M E 1.9 20
 M N 5.9 23
 M Z 3.4 21
 (D = 11550 km = 104°).

✓ Ki eSKS 18 21 05
 eSS 18 28 59

microns sec
 SKS E 1.1 10
 M E 7.1 20
 M N 2.8 22
 M Z 5.2 20
 (D = 11200 km = 101°).

✓ Sk 1P 18 10 42
 1PP 18 15 21

Ceram Island region.
Magn. = 6.3 (Up, Ki).

" 24 Up eP 00 51 08
 Sk 1P 00 50 50
 Off coast of Oregon.

" 24 ✓ Up ePP 04 43 35
 1PKS 04 44 46
 eSS 05 01 22

microns sec
 PKS E 0.6 6
 PKS N 1.2 6
 M E 2.9 20
 M N 4.7 23
 M Z 5.8 22

✓ Ki 1 04 52 13
 ePS 04 52 47
 microns sec
 M E 5.1 21
 M N 3.7 20
 M Z 3.6 20

Fiji Islands.
Magn. = 6.4 (Up, Ki).

" 24 Up 1P 21 25 23

" 25 Up 1P 08 57 02 0
 1 08 57 09
 1 08 57 14

microns sec
 M E 1.0 18
 M N 1.1 19

cont.

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960
 Jan 25 Sk 1P 08 56 45 C
 cont. i 08 56 58
 Gb 1P 08 57 21
 i 08 57 32
 Near east coast of
 Kamchatka.

" 25 Up 1P 11 37 08
 Sk eP 11 36 51
 Near east coast of
 Kamchatka.

" 25 Up 1P 17 41 12 D
 i 17 41 27
 microns sec
 M E 1.0 18
 M N 1.1 18
 M Z 1.5 19
 Ki -
 microns sec
 M E 1.8 20
 M N 0.7 18
 M Z 1.3 19

" 25 Up 1P 20 38 34
 microns sec
 P Z' 0.1 0.7

" 26 Up 1P 03 29 17 D
 i 03 29 26
 Sk i(P) 03 29 28
 i 03 29 36
 Gb e(P) 03 28 56

" 26 Up 1P 09 48 09
 i 09 48 22
 microns sec
 P Z' 0.1 0.5
 Ki 1P 09 47 22
 Sk 1P 09 47 59
 Gb 1P 09 48 28 D
 i 09 48 41
 Kurile Islands.

" 26 Up 1P 09 57 24 C
 i 09 57 30
 1S 10 01 47
 microns sec
 P E 1.2 3
 P N 0.7 2
 P Z 1.0 2
 P Z' 0.7 1.2
 S N 1.0 5
 M E 1.8 19

cont.

1960
 Jan 26 M N 1.3 21
 cont. M Z 1.3 20
 D = 2800 km = 25°.
 Ki 1P 09 58 16
 i 09 58 21
 i 09 58 45
 i 10 04 06

microns sec
 P Z' 0.3 1.0
 M E 2.0 19
 M N 1.4 18
 Sk 1P 09 58 09
 i 09 59 32
 i 10 04 19
 i 10 06 46
 Gb eP 09 57 30
 i 09 57 37
 eS 10 02 04
 i 10 02 16
 D = 2850 km = 25½°.

Turkey. Magn. = 6.1 (Up, Ki).

" 26 Up 1P 13 10 51
 i 13 11 11
 microns sec
 P Z' 0.1 0.7
 M E 2.4 17
 M N 1.7 17
 M Z 1.2 15
 Ki 1P 13 11 56 C
 microns sec
 P Z' 0.1 1.0
 Gb 1P 13 10 45
 Turkey.

" 26 Ki 1(P) 13 19 39

" 26 Up 1P 20 30 28 C
 i 20 30 42
 1S 20 33 06
 i 20 33 45
 microns sec
 P Z' 0.2 0.6
 S E 0.8 4
 S N 0.5 3
 (D = 1650 km = 15°).

Ki 1P 20 31 51
 i 20 31 57
 1pP 20 32 17
 i 20 33 41
 i 20 36 12
 microns sec
 P Z' 0.4 1.0
 (D = 2350 km = 21°).

Gb 1P 20 30 20
 cont.

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960				1960			
Jan 26	1		20 30 26	Jan 30	Ki 1P		02 57 16
cont.	1		20 30 37		Mariana Islands region.		
			Rumania. h = 140 km (Ki).				
			Magn. = 5.6 (Up, Ki).	" 30	Up iPKP		04 30 21
" 26	Ki 1(P)		21 01 38		i		04 30 27
" 26	Up iPKP		22 41 07		Sk iPKP		04 30 16
	i		22 41 11		Kermadec Islands.		
			microns sec	" 30	Sk eP		05 51 19
	PKP Z'	0.2 0.7		" 30	Ki 1P		10 03 44
	Ki ePKP		22 40 45	" 30	Ki eP		18 08 30
	i		22 40 50		Sk eP		18 08 56
	Gb iPKP		22 41 05		Mariana Islands region.		
	i		22 41 10	" 30	Ki eP		18 50 31
	Kermadec Islands.						microns sec
" 28	Up 1P		02 03 02		M E		1.1 20
" 28	Up 1P		09 00 06		M N		1.0 20
			microns sec		M Z		1.0 20
	P Z'	0.1 0.7			Sk 1P		18 50 57
	Ki 1P		08 59 22		Mariana Islands region.		
" 28	Up 1(P)		14 50 47	" 30	Up 1(P)		18 58 01
	i		14 50 57	" 31	Ki iPKP		04 21 44 D
	Sk 1P		14 50 48		Sk iPKP		04 21 54
" 29	Up iPKP		07 40 54		Santa Cruz Islands (h = 200 km).		
	i		07 41 08	" 31	Up 1P		05 19 54
			microns sec		i		05 20 03
	M E	1.1 20			iS		05 29 26
	M N	1.0 20					microns sec
	M Z	1.4 22			P Z'	0.1 1.2	
	Ki 1P		07 41 17 C		S E	2.2 13	
	i		07 42 09		M E	7.8 18	
			microns sec		M N	10 15	
	P Z'	0.1 1.0			M Z	8.5 15	
	M E	0.9 17			D = 8150 km = 73 $\frac{1}{2}$ $^{\circ}$.		
	M N	0.8 18			Ki 1P		05 19 18
	M Z	0.4 17			i		05 19 32
	Sk 1P		07 41 34 C		iS		05 28 20
	P and M possibly belong to two different earthquakes.						microns sec
" 29	Up 1P		11 10 39		P Z	1.1 7	
	i(Sg)		11 11 04		P Z'	0.2 1.2	
	Sk e(Sg)		11 13 01		S E	2.3 9	
" 29	Up 1P		14 25 18		S N	1.1 8	
			microns sec		M E	13 18	
	P Z'	0.1 0.8			M N	8.6 14	
" 29	Ki 1P		16 50 07		M Z	7.2 13	
					D = 7550 km = 68 $^{\circ}$.		
					Sk 1P		05 19 50 C
					i		05 20 20
					cont.		

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960

Jan 31

cont.

Gb 1P 05 20 14

Near east coast of
Shikoku, Japan.

Magn. = 6.3 (Up, Ki).

" 31

Up 1P 14 01 20

Sk 1P 14 01 37

Chinghai Province, China.

Markus Båth

24.8.1960.

1960
Feb.

Concei
203

Uppsala

PRELIMINARY

SEISMOLOGICAL BULLETIN

U P P S A L A, K I R U N A, S K A L S T U G A N, and G Ö T E B O R G

Uppsala (Up): 59° 51.5'N, 17° 37.6'E; h = 14 m.
Kiruna (Ki): 67° 50.4'N, 20° 25.0'E; h = 390 m.
Skalstugan (Sk): 63° 34.8'N, 12° 16.8'E; h = 580 m.
Göteborg (Gb): 57° 41.9'N, 11° 58.7'E; h = 66 m.

February 1-29, 1960

1960				1960			
Feb 1	Up	1P	02 20 18	Feb 2	Sk	1PKP	06 49 43
	Ki	1P	02 19 36	cont.		i	06 49 56
	Sk	1P	02 19 52		Gb	1PKP2	06 50 15
		i	02 19 56		Kermadec Islands region.		
	Gb	1P	02 20 21	" 2	Ki	1P	08 21 29
	Pacific Ocean.				Near west coast of Honshu, Japan.		
" 1	Up	1P	02 53 13	" 2	Up	1P	12 34 37
	Ki	1P	02 52 40			i	12 34 54
	Near east coast of Honshu, Japan.				Ki	1P	12 33 32
" 1	Up	1P	12 05 03			i	12 33 42
		i	12 05 12		Sk	1P	12 34 32
	Ki	1P	12 06 13		Gb	1P	12 35 34
		i	12 06 17			i	12 37 53
	Sk	1P	12 05 42		Northern Finland.		
		i	12 05 47	" 3	Up	1P	00 02 03
	Gb	1P	12 04 52			i	00 02 06
		i	12 05 09		Ki	1P	00 01 42
	Near west coast of Crete.				Kansu Province, China.		
" 1	Up	1P	14 06 55	" 3	Up	1PKP	02 40 56
		i	14 07 12			i	02 41 11
	Ki	1P	14 06 04			i	02 41 14
		i	14 06 29			i	02 41 31
	Gb	1P	14 07 15		Ki	1PKP	02 40 39
		i	14 07 32			i	02 40 43
	Off east coast of Kamchatka.				Sk	1PKP	02 40 48
" 1	Ki	1P	23 07 44			i	02 40 58
		i	23 08 10			i	02 41 18
" 2	Up	1PKP	06 49 47		Gb	1PKP2	02 41 32
		i	06 50 01		Off coast of North Island, New Zealand.		
	Ki	1PKP	06 49 27	" 3	Ki	1P	10 18 46
		i	06 50 31	" 3	Up	1P	12 59 49
cont.					Ki	1P	12 59 07
					cont.		

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960			
Feb 3	Off west coast of Hokkaido, Japan.		
cont.			
" 3	Sk 1(P)	18 13 31	
	i	18 15 52	
" 3	Sk 1(P)	22 19 56	
" 3	Sk 1(P)	22 30 09	
" 3	Sk 1(P)	22 51 05	
✓ 4	✓ Up 1PKP	04 06 06	
	i	04 06 48	
	✓ Ki 1(P)	04 01 36	
	1PKP	04 05 15	
	i	04 06 09	
	✓ Sk 1PKP	04 05 55	
	i	04 06 14	
	i	04 06 49	
	New Ireland region.		
" 4	Ki 1P	04 16 50	
" 4	Up 1P	07 14 52	
	i	07 14 56	
	✗ Ki 1P	07 15 30	
	i	07 15 33	
	Sk 1P	07 15 28	
	Southern Iran.		
✓ 4	✓ Up 1P	10 28 51	
	i	10 29 00	
	✓ Ki 1P	10 28 52	
	i	10 29 16	
	✓ Sk 1P	10 29 14	
	i	10 29 27	
	i	10 29 49	
	Northern India. (h = 100 km).		
✓ 4	✓ Up 1P	17 01 53	
	i	17 02 02	
	✓ Ki 1P	17 01 12	
	i	17 01 25	
	i	17 03 31	
	✓ Sk 1P	17 01 53	
	i	17 04 21	
	Off east coast of Honshu, Japan.		
✓ 4	✓ Up 1P	21 09 14	
	✓ Ki 1P	21 08 38	
	i	21 08 50	
	cont.		

1960			
Feb 4	Near coast of Honshu, Japan.		21 09 10
cont.			
" 5	Ki 1P		14 33 02
" 6	Up 1P		10 36 22
" 6	Up 1P		17 10 53
	i		17 10 56
	Sk 1P		17 11 09
	i		17 11 12
	Gb 1P		17 11 03
	Tibet.		
✓ 6	✓ Up 1P		17 24 04
	i		17 24 05
	✓ Ki 1P		17 24 00
	✓ Sk 1P		17 24 13
	Near coast of Sumatra.		
" 7	Up 1S		01 35 58
	Ki 1P		01 33 13
	1S		01 33 50
	Sk 1P		01 33 14
	i		01 33 54
	1S		01 34 00
	Gb 1(S)		01 37 02
✓ 7	✓ Up 1P		04 37 27
	✓ Ki 1P		04 37 31
	Venezuela.		
" 7	✓ Up 1P		10 20 07
	✓ Ki 1P		10 19 53
	✓ Sk 1P		10 20 15
	✓ Gb 1P		10 20 23
	Celebes Sea. (h = 600 km).		
✗ 7	Up 1P		10 24 06
	Sk e(P)		10 25 26
✓ 8	✓ Up 1PKP		13 04 55
	i		13 05 00
	✓ Ki 1PKP		13 05 04
	✓ Gb 1PKP		13 04 49
	Drake Passage.		
" 8	Up 1P		13 15 19
✓ 8	✓ Up 1P		19 01 56
	i		19 01 59
	i		19 03 32
	✓ Ki 1P		19 02 06
	i		19 03 08
	cont.		

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960				1960			
Feb 8	Sk	iP	19 02 24	Feb 12	Gb	i(P)	12 50 14
cont.		i	19 02 28	" 12	Gb	iP	17 42 21
		i	19 03 52	" 13	Up	iP	00 40 58
	Gb	iP	19 02 15		Ki	iP	00 40 43
		i	19 03 59		Sk	iP	00 40 40
		i	19 04 09				
	Afghanistan. (h = 150 km).						
" 8	Up	i(P)	20 47 07	" 13	Up	i(P)	11 19 28
					Sk	iP	11 18 54
" 8	Up	iP	23 38 50	" 13	Up	i(P)	11 34 59
	Sk	iP	23 39 32	" 13	Up	iP	11 58 41
	Gb	iP	23 38 35	✓ 13	Up	i	15 55 24
" 9	Ki	iP	03 46 52			i	15 55 31
✓ 9	Ki	iP	12 20 12		Ki	iP	15 54 31
" 10	Up	iP	00 09 51			i	15 55 03
		i	00 09 59		Halmahera.		
		i	00 10 07	" 14	Up	iP	13 02 39
		iPP	00 13 45		Andaman Islands.		
	Ki	iP	00 09 37	" 14	Up	iPKP	15 59 30
	Ceram.				Sk	iPKP	15 59 23
" 10	Up	iP	00 56 50		Gb	iPKP	15 59 38
		i	00 57 02		Kermadec Islands.		
✓ 10	Gb	iP	15 16 03	" 14	Up	iP	17 02 42
✓ 10	Up	iPKP	23 39 13		Sk	iP	17 02 34
	Samoa Islands region.			" 14	Up	iP	17 43 21
" 11	Up	i(P)	02 27 34		Gb	iP	17 42 58
		i	02 28 04			i	17 43 00
	Ki	iP	02 28 40	" 15	Up	iPKP	22 38 15
		i	02 28 46			i	22 38 26
	Gb	iP	02 27 29		Sk	iPKP	22 38 07
" 11	Up	iPKP	04 18 04		Kermadec Islands.		
		i	04 18 27	" 16	Up	iPKP	01 29 16
	Gb	iPKP	04 18 13			i	01 29 19
	Pacific Ocean.					i	01 29 51
✓ 11	✓ Up	iPP	04 48 09		Sk	iPKP	01 29 09
	✓ Ki	iPKP	04 45 27			i	01 29 57
	✓ Gb	i(PP)	04 48 19		Gb	iPKP	01 29 31
	New Hebrides region.					i	01 29 39
	(h = 450 km.)				Kermadec Islands.		
" 12	Up	iP	08 08 38 C	" 16	Up	iP	05 13 23
	Ki	i(P)	08 08 37		Ki	iP	05 12 55
	Sk	iP	08 09 03			i	05 13 11
	Gb	iP	08 08 50		cont.		



Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960				1960			
Feb 16	Sk	iP	05 13 25	Feb 18	Up	iP	12 25 37
cont.		i	05 16 55		Gb	iP	12 24 36
	Mariana Islands.						
" 16	Up	iPKP	05 41 39	" 18	Up	iP	17 56 30
		i	05 41 46		Sk	iP	17 55 21
		i	05 42 44			i	17 55 26
	Ki	iPKP	05 41 18	" 18	Up	iP	19 32 24
		i	05 41 24			Ki	19 31 36
	Sk	iPKP	05 41 34		Near east coast of Kamchatka.		
		i	05 41 35				
	Kermadec Islands region.			" 18	Gb	iP	19 37 25
" 16	Ki	iP	12 56 49	" 18	Up	iP	20 42 48
		i	12 57 07			i	20 42 53
" 16	Up	iP	15 17 52			i	20 42 57
	Ki	iP	15 17 13		Ki	iP	20 42 34
	Off east coast of Honshu, Japan.				Sk	i(P)	20 42 59
" 16	Ki	iP	15 57 10		China-Burma-India borders.		
" 17	Up	iP	08 12 52	" 18	Up	iP	21 45 46
	Ki	iP	08 12 00			i	21 45 53
" 17	Up	iP	10 20 10			i	21 46 00
" 17	Ki	iP	10 36 50		Ki	iP	21 44 53
" 17	Ki	iP	10 41 51			i	21 45 04
" 17	Ki	iP	11 58 33		Sk	iP	21 45 30
" 17	Ki	iP	12 03 35			i	21 45 42
" 17	Up	iP	16 38 45		Near east coast of Kamohatka.		
		i	16 38 50	" 18	Up	iP	22 37 13
	Ki	iP	16 38 00		Ki	iP	22 36 19
		i	16 38 12			i	22 36 31
	Sk	iP	16 38 38		Sk	iP	22 36 49
	Near east coast of Hokkaido, Japan.					i	22 37 37
" 18	Ki	iP	02 07 18		Fox Islands, Aleutian Islands.		
" 18	Gb	iP	12 00 27	" 19	Sk	iP	01 16 02
" 18	Up	iP	12 04 20			i	01 16 04
		i	12 04 25	" 19	Sk	iP	01 24 34
	Sk	iP	12 04 48	" 19	Ki	iP	02 05 01
	Gb	iP	12 03 05		Sk	iP	02 05 13
		i	12 03 06	" 19	Sk	iP	03 07 47
				" 19	Sk	iP	03 23 59
				" 19	Up	iP	05 19 26
						i	05 19 43
					Ki	iP	05 18 30
						i	05 18 42
					cont.		

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960				1960			
Feb 19	Sk	iP	05 19 03	Feb 20	Gb	iP	14 38 12
cont.		i	05 19 15	cont.		i	14 38 23
	Kenai Peninsula.				Near coast of Kamohatka.		
" 19	Ki	i(P)	05 27 29	" 20	Ki	iP	14 46 50
" 19	Sk	iP	05 49 50	" 20	Ki	iP	15 35 41
" 19	Gb	iP	07 18 18			i	15 35 47
" 19		i	07 19 17	" 20	Ki	iP	18 02 17
" 19	Gb	iP	10 09 59	" 20	Up	iP	20 12 49
" 19	Up	iP	10 44 16 C			i	20 12 56
" 19	Ki	iP	10 44 25			i	22 13 00
" 19		i	10 45 10		Ki	iP	20 11 56
" 19	Sk	iP	10 44 41			i	20 12 07
	Hindu Kush. (h = 200 km).				Sk	iP	20 12 33
" 19	Ki	iP	11 15 15		Gb	iP	20 13 13
" 19	Gb	iP	11 21 52			i	20 13 24
" 19	Up	iP	21 41 03	" 20	Up	iP	23 38 04
" 19	Sk	iP	21 41 45			i	23 38 09
" 20	Up	iP	00 25 03		Ki	iP	23 38 13
" 20		i	00 25 09		Sk	iP	23 38 29
" 20	Up	iP	00 33 58	" 21	Up	iPKP2	01 07 14
" 20		i	00 34 04			i	01 07 22
" 20	Up	i(P)	00 55 16			i	01 07 28
" 20		i	00 56 40		Ki	iPKP	01 06 46
" 20		i	00 57 04		Sk	iPKP2	01 07 13
" 20		i	00 57 08		South Island, New Zealand.		
" 20		i	00 57 14	" 21	Up	iP	08 19 03
" 20	Ki	iP	00 53 45			i	08 19 11
" 20		i	00 53 52			i	08 19 17
" 20		i	00 54 17		Ki	iP	08 20 13
" 20		i	00 54 35		Sk	iP	08 19 27
" 20		i(Sg)	00 54 42			i	08 19 35
" 20	Sk	i(P)	00 55 58		Gb	iP	08 18 33
" 20		i	00 56 11			i	08 18 43
" 20		i	00 56 42		Northern Algeria.		
" 20		i(Sg)	00 56 45	" 21	Up	iP	08 31 56
" 20	Up	iP	02 46 39		Ki	iP	08 31 29
" 20		i	02 47 04		Sk	iP	08 32 04
" 20	Up	iP	14 37 49	" 21	Up	iP	09 34 55
" 20		i	14 38 00			i	09 35 04
" 20	Ki	iP	14 36 57		Ki	iP	09 35 43
" 20	Sk	iP	14 37 33			i	09 36 37
cont.					Turkey.		
				" 21	Up	iPKP	09 57 40
					Fiji Islands (h = 600 km).		

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960				1960				
Feb	21	Sk	1P	16 08 01	Feb	22	Up 1P	21 09 00
"	21	Up	1P	17 33 03	"	22	i	21 09 03
"	21	Ki	1P	17 32 10	"	22	Ki 1P	21 09 09
"	21	Sk	1P	17 32 42	"	22	i	21 10 16
"	21	Gb	1P	17 33 17	"	22	Sk 1P	21 10 27
"	21			Aleutian Islands.	"	22	i	21 09 43
"	21	Ki	1P	22 56 32	"	22	Gb 1P	21 09 51
"	21			Halmahera.	"	22	i	21 08 32
"	21	Up	1P	23 33 10	"	22	Greece.	21 08 58
"	21		i	23 33 17	"	23	Up 1P	00 35 42
"	21	Ki	1P	23 33 14	"	23	i	00 35 46
"	21	Sk	e	23 35 35	"	23	i	00 35 56
"	21			Kirghiz, S.S.R.	"	23	Ki 1P	00 36 59
"	22	Up	1PKP	01 12 42	"	23	Sk 1P	00 36 24
"	22		i	01 12 44	"	23	i	00 36 26
"	22	Ki	1PKP	01 12 37	"	23	Gb 1P	00 35 33
"	22	Sk	ePKP	01 12 34	"	23	Greece.	
"	22	Gb	1PKP	01 12 51	"	23	Up 1P	02 17 14
"	22			Fiji Islands. (h = 600 km).	"	23	i	02 17 58
"	22	Up	1P	01 15 32	"	23	i	02 18 21
"	22	Ki	1P	01 15 07	"	23	Ki 1P	02 17 23
"	22	Sk	1P	01 15 24	"	23	Sk 1P	02 17 38
"	22	Ki	1P	05 19 27	"	23	i	02 17 41
"	22		i	05 19 37	"	23	i	02 18 24
"	22		i	05 20 58	"	23	Gb 1P	02 17 37
"	22	Sk	1P	05 19 45	"	23	i	02 17 38
"	22		i	05 19 56	"	23	i	02 18 21
"	22		i	05 21 27	"	23	Afghanistan.	
"	22			Jan Mayen Island region.	"	23	Up 1P	07 22 47
"	22	Up	1P	05 39 29	"	23	Sk 1P	07 23 31
"	22		i	05 39 34	"	23	Up 1P	07 39 13
"	22		i	05 39 37	"	23	i	07 39 17
"	22	Sk	1P	05 39 26	"	23	i	07 39 23
"	22		i	05 39 31	"	23	Ki 1P	07 40 29
"	22	Gb	1P	08 21 12	"	23	i	07 40 33
"	22		i	08 21 33	"	23	Sk 1P	07 39 55
"	22	Ki	1P	13 08 59	"	23	i	07 39 58
"	22	Sk	1P	13 09 20	"	23	Gb 1P	07 39 05
"	22		i	13 11 00	"	23	i	07 39 29
"	22	Up	1P	15 15 07	"	23	Greece.	
"	22	Up	1P	20 41 58	"	23	Up 1P	07 52 34
"	22		i	20 41 59	"	23	i	07 52 41
					"	23	Ki 1P	07 53 54
					"	23	Sk 1P	07 53 16
					"	23	i	07 53 21
					"	23	i	07 53 30
					"	23	Gb 1P	07 52 29
					"	23	Greece.	

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960				1960					
Feb	23	Up	iP	08 22 21	Feb	24	Up	iP	19 01 06
			i	08 22 32			Ki	iP	19 01 48
		Ki	iP	08 22 04			Turkey.		
		Sk	iP	08 22 47	"	24	Up	iPKP	21 55 54
		Gb	iP	08 22 43				i	21 57 18
		Formosa.					Ki	iPKP	21 55 43
"	23	Up	iP	09 35 12				i	21 55 50
		Ki	iP	09 34 34			Gb	iPKP	21 56 05
		Sk	iP	09 35 07				i	21 56 11
		Gb	iP	09 35 34			Solomon Islands.		
		Near south coast of Honshu, Japan. (h = 100 km).			"	24	Up	iP	22 06 07
"	23	Up	iP	09 49 24	"	25	Up	iP	14 35 38
		Sk	iP	09 49 17			Ki	iP	14 35 12
"	23	Up	iPKP	11 49 28	"	25	Ki	iP	21 40 31
		Ki	iPKP	11 49 20	"	26	Up	iP	01 20 38
		Gb	i(PKP)	11 49 45				i	01 20 54
		Fiji Islands. (h = 500 km).					Ki	eP	01 20 12
"	23	Up	iP	15 08 28				i	01 20 32
		Sk	iP	15 08 56			Ceram Sea.		
"	24	Up	iP	00 15 18	"	26	Up	iP	05 37 15
		Ki	iP	00 14 49			Ki	iP	05 37 28
		Sk	iP	00 15 16	"	26	Up	iP	08 07 26
		Mariana Islands region. (h = 300 km).			"	26	Up	iP	08 17 28
"	24	Up	iP	03 54 04			Ki	iP	08 17 09
"	24	Up	iP	05 19 25	"	26	Up	iP	12 31 49
"	24	Up	iP	06 20 43			Gb	iP	12 30 34
"	24	Up	iP	16 03 28	"	26	Up	iP	13 37 10
			i	16 03 32			Ki	iP	13 38 33
			i(Sg)	16 03 52			Sk	iP	13 38 03
		Gb	e(Sg)	16 05 02	"	26	Up	iP	15 01 26
"	24	Up	iP	16 29 03	"	26	Up	iP	20 34 52
			i	16 29 28	"	26	Up	iP	21 41 46
		Gb	i(P)	16 29 28			Ki	iP	21 41 34
"	24	Ki	eP	17 20 31			Sk	iP	21 41 28
		Chiapas, Mexico.			"	26	Up	iP	23 40 29
"	24	Up	iP	17 35 18				i	23 40 45
			i	17 35 22				i	23 43 48
			i	17 35 46			Ki	iP	23 39 36
		Ki	iP	17 35 13			cont.		

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960
Feb 26
cont.

✓	i		23 39 41
✓	i		23 44 22
✓	Sk	iP	23 40 08
✓	i		23 40 19
✓	i		23 40 41
✓	Gb	iP	23 40 47
✓	i		23 40 51

Aleutian Islands.

" 27

	Up	iP	00 18 14
	Ki	iP	00 17 22
	Sk	iP	00 17 59
	Gb	iP	00 18 (31)

Aleutian Islands.

✓ " 27

✓	Up	iP	08 21 06
✓	i		08 21 08
✓	i		08 21 13
✓	i		08 21 24
✓	Ki	iP	08 20 16
✓	Sk	iP	08 20 48
✓	i		08 21 09

Aleutian Islands.

" 27

✓	Up	iPKP	09 15 41
✓	i		09 15 42
✓	i		09 15 49
✓	Sk	iPKP	09 15 37

Kermadec Islands.

" 27

	Ki	iP	09 18 42
--	----	----	----------

Off south coast of Sumatra.

" 27

	Ki	iP	23 19 19
--	----	----	----------

Celebes Sea.

" 28

	Up	iP	07 29 09
	i		07 30 58
	i		07 31 14
	Ki	iP	07 27 45
	i		07 27 52
	i		07 28 33
	Sk	iP	07 28 13
	i		07 29 00
	i		07 29 22

Off north coast of Norway.

" 28

	Up	iP	09 45 17
	Ki	iP	09 44 31

Kurile Islands.

1960
Feb 29

	Up	iP	00 19 23 C
	Ki	iP	00 18 55

" 29

	Up	iP	00 32 06
	i		00 32 38
	Ki	iP	00 32 54
	Gb	i(P)	00 32 (22)

" 29

	Up	iP	05 35 13
	i		05 35 18
	i		05 35 42
	Ki	iP	05 34 56
	i		05 35 31
	Sk	iP	05 35 20

Near southwest coast of Luzon, P.I. (h = 150 km).

" 29

	Up	iP	08 45 17
	Ki	iP	08 44 55

Western Burma.

" 29

	Up	iP	23 47 07
	i		23 47 18
	i		23 48 15
	Ki	iP	23 48 04
	i		23 48 05
	Sk	iP	23 47 19
	i		23 47 36
	Gb	iP	23 46 35
	i		23 46 52

Morocco.

Ingrid Pettersson
Oct. 4, 1960.

Markus Båth.

Uppsala

1960
March *Comed
g.B.*

PRELIMINARY

SEISMOLOGICAL BULLETIN

U P P S A L A , K I R U N A , S K A L S T U G A N , and G Ö T E B O R G

Uppsala (Up): 59°51.5'N, 17°37.6'E; h = 14 m.
Kiruna (Ki): 67°50.4'N, 20°25.0'E; h = 390 m.
Skalstugan (Sk): 63°34.8'N, 12°16.8'E; h = 580 m.
Göteborg (Gb): 57°41.9'N, 11°58.7'E; h = 66 m.

March 1-31, 1960
.....

1960				1960			
Mar 1	Sk	iP	09 33 23	Mar 3	Ki	iP	05 08 00
"						i	05 08 20
"	1	Sk	iP			Central Alaska.	
"	1	Sk	iP	09 54 19			
"	1	Ki	iP	11 36 58	"	3	✓ Up iP 14 22 52
"	2	Ki	iP	00 22 56			i 14 22 53
		Michoacan, Mexico.				✓ Ki iP 14 22 48	i 14 22 50
"	2	Ki	iP	09 44 04		✓ Sk iP 14 23 12	i 14 23 14
			i	09 44 41			i 14 23 23
"	2	Ki	iP	21 36 08		✓ Gb iP 14 23 17	i 14 23 26
"	2	✓ Up iP 22 02 19				i 14 25 05	
		✓ Sk iP 22 01 59				Sinkiang Province, China.	
		i 22 02 21		"	3	Gb iP 19 37 16	
		✓ Gb iP 22 01 53		"	3	Ki iP 20 53 56	
		i 22 02 03				i 20 54 15	
		i 22 05 15		"	3	Ki iP 23 03 15	
		North Atlantic Ocean.				i 23 03 25	
"	3	Up iP 01 54 26		"	4	Up iP 01 24 27	
		Ki iP 01 54 34		"	4	✓ Up iP 02 27 08	
		Sk iP 01 54 13				i 02 27 12	
		Gb iP 01 54 09				i 02 27 21	
		Near coast of Venezuela. (h = 100 km).				i 02 27 34	
"	3	Ki iP 04 09 21				✓ Ki iP 02 26 15	
		i 04 09 29				i 02 26 27	
		Sk iP 04 09 40				✓ Sk iP 02 26 47	
		i 04 09 47				i 02 27 08	
"	3	Ki i(P) 08 57 51				✓ Gb iP 02 27 25	
		i 08 58 09				i 02 27 37	
		i 08 58 35				Andreanof Islands, Aleutian Islands.	

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960
 Mar 4 ✓ Up iP 04 04 30
 ✓ i 04 04 34
 ✓ i 04 04 39
 ✓ Ki iP 04 03 58
 ✓ i 04 04 09
 ✓ Sk iP 04 04 29
 i 04 04 35
 Gb iP 04 04 53
 Near south coast of
 Kyushu, Japan.
 (h = 100 km).

" 4 Sk iP 04 22 47
 i 04 23 30
 i 04 23 33

" 4 Up iP 06 58 46

" 4 Gb iP 07 28 02
 i 07 28 08
 i 07 29 44

" 4 Ki iP 12 09 34
 i(Sg) 12 10 29

" 4 Ki iP 12 29 34

" 4 Up iP 13 37 53

" 4 Ki iP 15 22 07

" 4 ✓ Up iP 16 28 46
 ✓ i 16 31 31
 ✓ i 16 31 58
 ✓ Ki iP 16 27 29
 ✓ i 16 27 38
 ✓ Sk iP 16 27 47
 i 16 27 56
 i 16 29 30
 i 16 29 36
 ✓ Gb iP 16 28 59
 i 16 29 07

Jan Mayen Island region.

" 4 ✓ Up iP 21 17 40
 ✓ i 21 17 48
 ✓ Ki iP 21 17 43
 i 21 17 49
 ✓ Sk iP 21 17 57
 i 21 18 05
 ✓ Gb iP 21 17 54
 i 21 18 01

Nicobar Islands.

1960
 Mar 5 Up i(P) 07 59 48
 ✓ Up iP 11 34 13 C
 ✓ i 11 34 17
 ✓ Ki iP 11 34 16
 ✓ Sk iP 11 34 35
 ✓ i 11 34 41
 ✓ Gb iP 11 34 33
 i 11 34 49
 Nepal.

" 5 Up iP 12 01 37

" 5 ✓ Up iP 14 03 05
 ✓ i 14 03 37
 i 14 07 15
 i 14 07 22
 ✓ Ki iP 14 02 47
 i 14 02 52
 i 14 03 08
 i 14 06 20
 ✓ Sk iP 14 03 13
 i 14 03 19
 i 14 06 42
 ✓ Gb iP 14 03 26
 i 14 06 49

Halmahera Island.

" 5 Up iP 16 48 03

" 5 Up iPKP 21 11 03
 i 21 11 09
 Sk iPKP 21 10 59
 i 21 11 08
 Gb iPKP 21 11 13

" 5 Up iPKP 21 16 38
 i 21 16 44
 Sk iPKP 21 16 34
 Gb iPKP 21 16 48
 i 21 16 52

" 5 Up iP 23 59 49
 Ki iP 23 59 52
 Sk iP 00 00 10
 i 00 00 13
 Gb iP 00 00 07

Nepal.

" 6 ✓ Ki iP 02 35 37
 i 02 35 43

Halmahera aftershock.

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960				1960					
Mar	6	Up	eP	04 24 30	Mar	7	Ki	iP	09 21 19
			i	04 24 40					
		Gb	eP	04 24 32	"	7	Up	iP	15 59 44
		Gulf of California.					Ki	iP	15 59 18
"	6	Up	iP	06 48 03			Sk	iP	15 59 48
"	6	Up	iP	08 07 36			Ryukyu Islands.		
		Kurile Islands.			"	7	Ki	i(P)	19 00 33
"	6	Up	i(P)	09 16 08	"	7	Ki	iP	21 25 00
"	6	Up	iP	09 36 09			Sk	iP	21 24 27
			i	09 36 14	"	8	Up	iP	14 19 14
"	6	Up	iP	11 49 30	"	8	Up	iP	15 01 07
"	6	Up	iP	17 30 52	"	8	Ki	iP	16 49 00
			i	17 30 58	"	8	Up	iPKP	16 52 12
		Sk	iP	17 31 34				i	16 52 25
			i	17 31 49				iSKP	16 55 29
"	6	Ki	i(P)	23 57 58				iSKSP	17 04 30
"	7	Up	eP	00 58 50				i	17 04 37
			i	00 59 41			Ki	iPKP	16 51 56
			i	01 00 25				i	16 52 12
		Ki	iP	00 59 10				i	16 52 34
		Sk	eP	00 59 29				iPKKP	17 01 51
			i	00 59 48				i	17 05 11
			i	01 00 34			Sk	iPKP	16 52 08
		Iran.						i	16 52 14
								i	16 52 46
								iSKP	16 55 24
								iPSKS	17 04 50
"	7	Ki	iP	02 21 17			New Hebrides Islands.		
		Off coast of Sumatra.					(h = 250 km).		
"	7	Up	iP	05 26 44 C	"	8	Up	iP	17 28 13
			i	05 26 53	"	8	Ki	iP	19 22 10
			i	05 27 24	"	8	Up	iP	20 37 51
		Ki	iP	05 26 29	"	9	Ki	iP	03 41 46
			i	05 26 34	"	9	Ki	iP	13 48 25
			i	05 26 56	"	9	Ki	i(P)	16 27 08
		Sk	iP	05 26 50	"	10	Up	iPKP	00 12 30
			i	05 26 54			Ki	iPKP	00 12 49
		Celebes.					Southern Peru (h = 150 km).		
"	7	Up	iP	06 21 56	"	10	Ki	iP	00 33 06
			i	06 21 59			Central Alaska.		
		Ki	iP	06 21 06					
		Sk	iP	06 21 42					
			i	06 21 46					
		Off southwest coast of Kamchatka. (h = 100 km).							

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960				1960					
Mar	10	Ki	iP	05 15 35	Mar	11	Gb	iP	11 05 59
"	10	Up	iPKP	05 19 17	cont.			i(Sg)	11 06 29
"			i	05 19 24	"	11	Up	e(Sg)	11 13 18
"		Ki	iPKP	05 18 55	"		Gb	iP	11 11 30
"		Sk	iPKP	05 19 11	"			e(Sg)	11 12 06
"			i	05 19 15	"	11	Up	iP	12 49 56
"				Kermadec Islands region. (h = 500 km).	"		Sk	iP	12 50 35
"	10	Ki	i(P)	07 25 51	"	11	Sk	eP	13 13 26
"	10	Ki	i(P)	08 47 11	"	11	Ki	iP	13 23 27
"	10	Ki	iP	09 23 42	"			Mariana Islands (h = 200 km).	
"				Mindanao, Philippine Islands.	"	11	Gb	iP	14 26 59
"	10	Ki	iP	11 53 51	"	11	Up	iP	14 30 16
"	10	Ki	iPKP	14 03 29	"	11	Gb	i(P)	14 35 21
"				Samoa Islands region.	"	11	Up	iP	14 39 44
"	10	Up	iP	14 43 26	"	11	Gb	i(P)	14 50 36
"			i	14 43 53	"	11	Ki	i(P)	20 21 44
"		Ki	iP	14 42 38	"	11	Ki	i(P)	21 02 18
"			i	14 42 48	"	12	Up	iPKP	01 50 06
"		Sk	iP	14 43 15	"		Sk	iPKP	01 49 56
"			i	14 43 18	"			i	01 50 04
"		Gb	iP	14 43 51	"				Kermadec Islands.
"				Kurile Islands. (h = 100 km).	"	12	Up	iP	02 58 42
"	10	Ki	iP	15 42 15	"		Ki	iP	02 59 15
"	10	Up	iP	15 47 47	"		Sk	iP	02 59 17
"		Sk	iP	15 46 51	"	12	Up	iP	07 21 01
"	10	Sk	iP	16 33 48	"	12	Up	iP	07 27 22
"	10	Ki	iP	20 59 47	"	12	Up	iP	07 40 08
"	10	Gb	iP	21 27 58	"	12	Gb	iP	08 16 47
"	10	Gb	iP	23 28 06	"	12	Gb	iP	08 29 47
"	11	Up	iP	03 31 31	"	12	Gb	iP	09 09 23
"	11	Ki	iP	07 17 29	"	12	Ki	iP	09 35 49
"	11	Up	iP	07 41 09	"			i	09 35 51
"	11	Up	e(Sg)	11 07 29	"	12	Ki	iP	11 41 42
"			i	11 07 39					
"				cont.					

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960				1960					
Mar	12	Up	iP	11 58 14	Mar	14	Up	iP	11 05 12
			i	11 58 23					Andreanof Islands,
			i	12 04 18					Aleutian Islands.
		Ki	iP	11 59 36	"	14	Ki	iP	13 19 49
			i	11 59 47	"	14	Up	iP	14 53 46
		Sk	iP	11 58 59			Gb	iP	14 54 19
			i	11 59 04	"	14	Up	iP	14 57 15
		Gb	iP	11 58 05			Ki	i(P)	14 57 35
			i	11 58 18	"	14	Up	iP	19 28 57
		Southern Yugoslavia.							19 29 02
"	12	Gb	iP	12 03 36			Off coast of Oregon.		
"	12	Up	iP	19 57 08	"	14	Up	iP	20 21 57
"	12	Gb	iP	20 41 (06)			Ki	iP	20 22 36
			i	20 42 (10)					20 24 14
"	12	Ki	iP	20 45 18			Sk	eP	20 22 22
"	12	Up	iPKP	20 49 27			Persian Gulf.		
		Sk	iPKP	20 49 27	"	15	Ki	iP	02 24 49
		New Britain.			"	15	Up	iP	04 10 00
"	12	Ki	iP	21 00 18			Sk	iP	04 09 52
			i	21 00 21	"	15	Sk	iP	08 22 51
"	12	Up	iP	22 02 22	"	15	Up	iP	09 32 06
		Sk	iP	22 02 35					09 32 19
"	13	Up	eP	09 26 03					09 32 29
"	13	Up	iP	09 29 41			Ki	iP	09 31 13
"	13	Up	iP	12 01 18					09 31 16
		Ki	iP	12 01 21					09 31 37
"	14	Up	iP	00 06 11			Sk	iP	09 31 45
		Ki	iP	00 06 12					09 31 48
		Sk	iP	00 05 58			Gb	iP	09 32 18
			i	00 06 01					09 32 31
		Gb	eP	00 06 20			Andreanof Islands,		
			i	00 06 54			Aleutian Islands.		
		Panama-Colombia border.			"	15	Up	iP	10 00 09
		(h = 60 km).					Ki	eP	10 00 12
"	14	Up	iP	01 04 01			Gb	i(P)	10 00 49
			i	01 04 25					10 00 51
		Ki	iP	01 03 13	"	15	Ki	iP	12 00 46
		Sk	iP	01 03 54	"	15	Gb	iP	12 18 56
		Gb	iP	01 04 43					12 18 58
		Hokkaido, Japan.			"	15	Up	eP	15 35 00
"	14	Sk	iP	04 49 18			Ki	iP	15 35 19

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960				1960					
Mar	15	Ki	iP	17 38 33	Mar	18	Up	iP	15 12 57
"	16	Up	iPKP	00 52 01	"	18	Up	iP	18 36 41
			Sandwich Islands.				Ki	iP	18 37 34
							Sk	iP	18 37 06
"	16	Ki	i(P)	04 19 57	"	18	Ki	iP	21 17 26
"	16	Ki	i(P)	04 36 39	"	19	Up	i(P)	06 28 51
"	16	Up	i(P)	07 32 47	"	19	Ki	iP	09 06 30
"	16	Gb	e(P)	07 42 47				i	09 06 35
			i	07 44 51	"	19	Gb	iP	11 49 10
"	16	Up	e(P)	09 55 47				i	11 49 12
"	16	Up	iP	19 36 19	"	19	Up	iP	12 06 53
			i	19 36 23	"	19	Ki	iP	12 54 00
		Ki	iP	19 35 52				i	12 54 54
			i	19 35 53	"	20	Up	eP	00 59 06
		Sk	iP	19 36 08			Sk	e(P)	00 59 50
			i	19 36 13	"	20	Up	iP	01 35 32
"	17	Up	iP	20 25 03	"	20	Up	iP	07 38 39
		Ki	iP	20 24 10			Ki	iP	07 38 40
			Andreanof Islands,						Near coast of Sumatra.
			Aleutian Islands.						
"	18	Up	iP	01 27 18	"	20	Up	iP	11 10 10
			e(pP)	01 27 59	"	20	Up	iP	13 48 09
		Ki	i(pP)	01 27 53				i	13 48 44
		Sk	iP	01 27 01			Ki	iP	13 47 28
			Guatemala. (h = 150 km).				Sk	iP	13 48 02
"	18	Ki	e(PKP)	12 35 12				i	13 50 36
			New Britain (h = 150 km).				Gb	iP	13 48 31
"	18	Sk	iP	13 45 52					Off northeast coast of
"	18	Up	iP	13 55 57					Honshu, Japan. (h = 60 km).
"	18	Ki	iP	14 12 30	"	20	Up	iP	13 55 54
"	18	Up	iP	14 40 11					Near east coast of Honshu,
									Japan.
"	18	Up	iP	14 53 53	"	20	Ki	iP	15 18 52
		Ki	iP	14 53 57	"	20	Up	iP	17 18 47
		Sk	iP	14 54 17				i	17 18 51
			Afghanistan-Tadzhik border.					i	17 21 29
"	18	Sk	iP	14 56 02				iP'P'	17 47 02
									cont.

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

Year	Date	Station	Type	Time	Location
1960	Mar 20	Ki	iP	17 18 05	Off northeast coast of Honshu, Japan. (h = 60 km).
cont.			i	17 27 26	
		Sk	iP	17 18 40	
			i	17 18 43	
		Gb	iP	17 19 09	
			i	17 19 11	
"	20	Ki	iP	18 19 16	
"	20	Ki	iP	20 25 34	
"	20	Up	iP	20 29 24	
		Ki	iP	20 28 20	
"	20	Up	iP	21 47 57	Near east coast of Honshu, Japan.
"	20	Up	iP	22 38 24	
		Ki	iP	22 39 09	
"	20	Up	iP	23 38 56	North Atlantic Ocean.
"	21	Up	iP	00 08 05	
		Ki	i(P)	00 09 06	
		Sk	i(P)	00 09 35	
		Gb	e(P)	00 08 32	
			i	00 09 45	
"	21	Up	i(P)	00 12 59	
		Ki	i(P)	00 12 16	
		Sk	iP	00 14 23	
		Gb	iP	00 13 49	
"	21	Up	iP	00 46 11	
			i	00 46 21	
			i	00 48 49	
		Ki	iP	00 45 29	
			i	00 45 37	
			i	00 47 56	
		Sk	iP	00 46 03	
			i	00 46 09	
		Gb	iP	00 46 27	
			i	00 46 37	
			i	00 48 26	
					Near east coast of Honshu, Japan.
"	21	Up	iP	03 56 27	
		Ki	iP	03 56 18	
		Sk	eP	03 56 47	Burma.
1960	Mar 21	Up	iP	04 54 41	Near east coast of Honshu, Japan.
		Ki	iP	04 54 07	
			i	04 54 25	
"	21	Ki	iP	05 00 53	
"	21	Up	iP	06 05 36	Near east coast of Honshu, Japan.
		Gb	iP	06 06 03	
"	21	Up	eP	07 02 49	Near east coast of Honshu, Japan.
		Ki	iP	07 02 06	
"	21	Ki	iP	07 07 36	
"	21	Up	iP	07 25 20	
		Ki	iP	07 26 18	
		Gb	iP	07 24 54	
"	21	Up	iP	09 24 13	
		Ki	iP	09 23 32	
"	21	Up	iP	09 29 43	Near east coast of Honshu, Japan.
			i	09 29 50	
			i	09 32 22	
		Ki	iP	09 29 01	
			i	09 29 08	
			i	09 29 15	
		Sk	iP	09 29 35	
			i	09 30 02	
			i	09 32 05	
		Gb	iP	09 30 01	
			i	09 30 04	
			i	09 32 51	
"	21	Up	iP	10 18 24	
		Sk	iP	10 19 02	
"	21	Ki	iP	14 36 40	
			i	14 37 21	
		Sk	iP	14 36 24	
			i	14 36 56	
			i	14 37 01	
"	21	Ki	i(P)	14 58 26	
"	21	Up	iP	15 20 56	

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960

Mar	21	Ki	1P	21 11 15
"	21	Up	1P	23 08 20
		Near east coast of Honshu, Japan.		
"	21	Up	1P	23 33 04
		Ki	1P	23 32 22
		Near east coast of Honshu, Japan.		
"	22	Up	1P	00 40 34
"	22	Up	1P	02 01 22
		Ki	1P	02 01 08
		Near east coast of Oaxaca, Mexico.		
"	22	Up	1PKP	02 51 56
		Ki	1PKP	02 51 57
		Gb	1PKP	02 52 03
		Northwest of Balleny Islands.		
"	22	Up	1(P)	07 30 46
"	22	Up	1P	07 37 57
		Ki	1(P)	07 36 45
"	22	Up	1P	09 19 14
		i		09 19 19
		Ki	1P	09 18 46
		i		09 18 58
		Sk	1P	09 19 28
		i		09 19 33
"	22	Up	1P	10 34 22
		Ki	1P	10 33 41
		Gb	1P	10 34 41
"	22	Ki	1P	12 56 59
"	22	Ki	1P	20 06 25
"	22	Up	1P	20 14 33
"	22	Ki	1P	20 35 51
		Gb	1P	20 35 04
"	23	Up	1P	00 34 43
		i		00 34 48
		i		00 37 18
		Ki	1P	00 34 01
		cont.		

1960

Mar	23	Sk	1P	00 34 37
cont.		i		00 34 40
		i		00 34 49
		Gb	1P	00 35 07
		i		00 35 11
		i		00 37 54
		Near east coast of Honshu, Japan.		
"	23	Ki	1(P)	00 45 34
"	23	Up	1P	01 18 37
		i		01 18 54
		i		01 22 47
		Ki	1P	01 17 56
		i		01 18 10
		Sk	1P	01 18 30
		i		01 18 36
		Gb	1P	01 19 01
		i		01 19 09
		Near east coast of Honshu, Japan.		
"	23	Up	1P	01 51 30
		Ki	1P	01 50 56
		Sk	1P	01 51 10
		Gb	1P	01 51 49
"	23	Up	1P	01 56 06
		i		01 57 03
		i		01 57 12
		Ki	1P	01 55 33
		Gb	1P	01 56 25
"	23	Up	1P	02 03 00
		i		02 03 10
		Ki	1P	02 02 19
		i		02 02 27
		Gb	1P	02 03 25
		i		02 03 34
		Near east coast of Honshu, Japan.		
"	23	Up	1P	02 20 30
		Ki	1P	02 19 49
		i		02 20 20
		Sk	1P	02 20 30
		i		02 22 51
		Gb	1P	02 20 54
		Near east coast of Honshu, Japan.		
"	23	Up	1P	04 37 26

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960

Mar 23 ✓ Up 1P 08 58 03
 ✓ i 08 58 10
 ✓ Ki 1P 08 57 21
 ✓ i 08 57 35
 ✓ i 08 57 50
 ✓ Sk 1P 08 57 55
 ✓ Gb 1P 08 58 18
 ✓ i 08 58 25

Near east coast of Honshu, Japan.

" 23 Sk 1P 09 00 28

" 23 ✓ Up 1P 10 40 14
 ✓ Ki 1P 10 39 33
 ✓ i 10 39 47
 ✓ Sk 1P 10 40 07
 ✓ Gb 1P 10 40 36

Near east coast of Honshu, Japan. (h = 100 km).

" 23 ✓ Up 1P 12 02 23
 ✓ i 12 02 32
 ✓ Ki 1P 12 01 42
 ✓ i 12 01 51
 ✓ Gb 1P 12 02 43
 ✓ i 12 02 51

Near east coast of Honshu, Japan.

" 23 ✓ Up 1P 16 12 29
 ✓ i 16 12 44
 ✓ Ki 1P 16 11 48
 ✓ Sk 1P 16 12 21
 ✓ Gb 1P 16 12 51

Near east coast of Honshu, Japan. (h = 100 km).

" 23 ✓ Up 1P 20 13 57
 ✓ i 20 14 00
 ✓ Ki 1P 20 13 38
 ✓ Sk 1P 20 14 07
 ✓ Gb 1P 20 14 17

Szechwan Province, China.

" 23 Up 1P 21 33 59

" 23 ✓ Up 1P 21 45 43
 ✓ i 21 45 51
 ✓ Ki 1P 21 45 00
 ✓ i 21 45 08
 ✓ Sk 1P 21 45 34
 ✓ i 21 47 59

cont.

1960

Mar 23 ✓ Gb 1P 21 46 04
 cont. ✓ i 21 46 13

Near east coast of Honshu, Japan.

" 23 ✓ Up 1P 22 33 59
 ✓ i 22 34 08
 ✓ i 22 36 47
 ✓ Ki 1P 22 33 20
 ✓ i 22 33 32
 ✓ i 22 35 27
 ✓ Sk 1P 22 33 53
 ✓ i 22 34 04
 ✓ i 22 36 30
 ✓ Gb 1P 22 34 23
 ✓ i 22 34 32
 ✓ i 22 36 43
 ✓ i 22 36 52

Near east coast of Honshu, Japan.

" 23 Up 1P 23 03 01
 Ki 1P 23 02 20
 Sk 1P 23 02 59

Near east coast of Honshu, Japan.

" 23 ✓ Up 1P 23 12 18
 ✓ i 23 12 25
 ✓ Ki 1P 23 13 50
 ✓ i 23 13 53
 ✓ Sk 1P 23 12 57
 ✓ i 23 13 00
 ✓ i 23 17 51
 ✓ Gb 1P 23 11 41
 ✓ i 23 12 40
 ✓ i 23 15 25

Switzerland.

" 23 Ki 1(P) 23 19 52

" 23 Up 1P 23 37 40
 Ki 1P 23 36 52
 Sk 1P 23 37 49

Near east coast of Honshu, Japan.

" 24 Up 1P 03 08 14
 i 03 08 18
 i 03 08 26
 Ki 1P 03 07 22
 i 03 07 24
 Sk eP 03 07 58
 Gb 1P 03 08 31

cont.

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960				1960					
Mar 24		i	03 08 37	Mar 24	Up	iP	20 38 08		
cont.	Andreanof Islands, Aleutian Islands.				Gb	iP	20 38 38		
" 24	✓	Up	iP	06 05 24	" 24	Up	iP	23 28 27	
			i	06 05 35		Gb	e(P)	23 29 34	
			i	06 05 47	" 25	✓	Up	iPKP	02 47 31
	✓	Ki	iP	06 04 36		✓	Ki	iPKP	02 47 21
			i	06 04 38		✓	Sk	iPKP	02 47 23
	✓	Sk	iP	06 05 02			i	02 47 25	
	✓		i	06 05 18		✓	Gb	iPKP	02 47 39
	✓	Gb	iP	06 05 48			i	02 47 45	
			i	06 05 52		Fiji Islands. (h = 400 km).			
	Kurile Islands.				" 25	Ki	iP	02 50 09	
" 24		Ki	iP	08 07 55	" 25	Gb	iP	05 45 18	
" 24		Up	i(Sg)	08 13 48			i	05 45 19	
			i	08 13 53	" 25	Gb	iP	08 19 48	
			i	08 13 56	" 25	Up	iP	10 41 55	
		Sk	i(P)	08 13 04	" 25	Up	iP	11 15 12	
			i(Sg)	08 13 32	" 25	Up	iP	11 56 28	
			i	08 13 39	" 26	Up	iP	07 28 43	
		Gb	i	08 12 10	" 26	Up	i(P)	11 28 19	
			i(Sg)	08 12 27		Ki	i(P)	11 28 07	
	Explosion at Stavanger, Norway.				" 27	Up	i(P)	01 20 17	
" 24	✓	Up	iP	10 07 14			i	01 21 29	
			i	10 07 24	" 27	✓	Up	iPKP	04 07 35
	✓	Ki	iP	10 06 21		✓	Ki	iPKP	04 07 39
	✓	Sk	iP	10 06 54			i	04 07 22	
			i	10 07 02			i	04 07 30	
	✓	Gb	iP	10 07 29		✓	Sk	i(PKPK)	04 17 25
			i	10 07 39			i	04 07 33	
	Andreanof Islands, Aleutian Islands.					✓	Gb	iPKP	04 07 36
" 24		Up	iP	10 10 13			i	04 07 44	
			i	10 10 22			i	04 07 52	
	✓	Ki	iP	10 09 30		New Hebrides Islands.			
	✓	Sk	iP	10 10 04	" 27	Ki	iP	07 39 29	
		Gb	iP	10 10 34		Off coast of Mexico.			
	Near east coast of Honshu, Japan.				" 27	✓	Up	iPKP	09 17 07
" 24	✓	Up	iP	20 14 04			i	09 17 16	
			i	20 14 22		✓	Ki	ePKP	09 16 56
	✓	Ki	iP	20 13 22		✓	Sk	iPKP	09 17 05
	✓	Sk	iP	20 14 02			i	09 18 05	
	✓	Gb	iP	20 14 34		cont.			
			i	20 14 38		Near east coast of Honshu, Japan.			

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960				1960			
Mar 27	✓ Gb	iPP	09 19 36	Mar 28	Up	iP	00 26 30
cont.	✓	i	09 19 49			i	00 26 36
		New Hebrides Islands.			Ki	iP	00 26 29
" 27	Up	eP	09 42 59			i	00 26 35
" 27	Up	iP	10 12 40		Sk	iP	00 26 17
" 27	Up	iPKP	17 44 29 0			i	00 26 24
		i	17 44 33			i	00 26 34
		Ki	17 44 13		Gb	iP	00 26 20
		Sk	17 44 22			i	00 26 41
		i	17 44 34		Off south coast of Panama.		
		Gb	17 44 38	" 28	Up	iP	05 11 25
		i	17 44 53	" 28	✓ Gb	iPKP	06 55 04
		Kermadec Islands.				New Hebrides Islands. (h = 300 km).	
" 27	Up	i(P)	20 05 02	" 28	Sk	iPKP	07 01 49
	Ki	iP	20 05 35			i	07 02 00
		New Hebrides Islands.		" 28	✓ Up	iPKP	12 57 19
" 27	✓ Up	eP	20 28 34		✓	i	12 57 26
	✓ Ki	iP	20 28 20		✓ Sk	iPKP	12 57 14
		i	20 28 24		✓	i	12 57 31
	✓ Sk	eP	20 28 03		✓ Gb	iPKP	12 57 29
		i	20 28 15			i	12 57 32
	✓ Gb	eP	20 28 29		✓	i	12 58 17
		Jalisco, Mexico.			Tonga Islands region.		
" 27	Up	iP	20 32 03	" 28	Gb	iP	15 01 35
" 27	✓ Up	iPKP	23 47 50	" 28	Ki	iP	15 03 01
	✓	i	23 47 58	" 28	Ki	i(P)	16 28 12
		iPKP2	23 48 16	" 28	Gb	iP	19 00 17
		i	23 49 35	" 28	✓ Up	iP	20 54 14
		i	23 51 50		✓ Sk	iP	20 53 42
		i	23 56 56			i	20 53 44
	✓ Ki	iPKP	23 47 43		✓ Gb	iP	20 53 54
		i	23 47 48		North Atlantic Ocean.		
		i	23 47 55	" 29	Up	iPKP	00 30 40
	✓ Sk	iPKP	23 47 49			i	00 30 49
		i	23 47 56		Ki	iPKP	00 30 20
		iPKP2	23 48 10			i	00 30 24
	✓ Gb	iPKP2	23 48 32		Sk	iPKP	00 30 35
		i	23 48 36			i	00 30 48
		i	23 49 30		Kermadec Islands region.		
		i	23 49 52				
		i	23 54 55				
		Off coast of North Island, New Zealand.					
" 28	✓ Up	iP	00 19 20				
	✓ Gb	iP	00 19 42				

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960				1960				
Mar	29	Up	iPKP	06 50 12	Mar	30	Ki i(P)	14 14 07
			i	06 50 17	"	30	Ki iP	14 24 43
			iPKS	06 53 42			Near coast of Sumatra.	
		Sk	iPKP	06 50 06	"	30	Gb iP	15 08 00
			i	06 50 10	"	30	Gb iP	15 13 35
			i	06 50 14	"	30	Gb iP	15 13 35
			iPKS	06 53 36	"	30	Ki iPKP	15 38 45
		Gb	iPKP	06 50 11			Sk iPKP	15 38 52
			i	06 50 22			Gb iPKP	15 39 01
			i	06 50 33			Loyalty Islands region.	
			iPKS	06 53 48			Up iP	20 35 52
					"	31	Ki iP	00 52 38
							i	00 52 09
							Sk iP	00 52 10
								00 52 35
								Mariana Islands. (h = 250 km).
					"	31	Up iP	03 13 26
							Ki iP	03 12 44
							i	03 12 57
							Sk iP	03 13 18
							Gb iP	03 13 47
							i	03 13 49
								Off northeast coast of Honshu, Japan.
					"	31	Ki iP	17 40 20
								Off northeast coast of Honshu, Japan.
					"	31	Up iP	20 08 53
							Ki iP	20 08 29
							Sk iP	20 08 28
							i	20 08 30
								Gulf of California.
					"	31	Ki i(P)	20 14 12
							Sk i(P)	20 14 12
					"	31	Ki i(P)	21 14 20
							i	21 14 24
								Explosion.
					"	31	Up eP	21 44 07
							Ki iP	21 43 22
								Near north coast of Honshu, Japan.
								Ingrid Pettersson Oct 28, 1960.
								Markus Båth.

Markus Båth.

1960

Apr.

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Uppsala

PRELIMINARY
SEISMOLOGICAL BULLETIN

U P P S A L A , K I R U N A , S K A L S T U G A N , and G Ö T E B O R G

Uppsala (Up): 59°51.5'N, 17°37.6'E; h = 14 m.
Kiruna (Ki): 67°50.4'N, 20°25.0'E; h = 390 m.
Skalstugan (Sk): 63°34.8'N, 12°16.8'E; h = 580 m.
Göteborg (Gb): 57°41.9'N, 11°58.7'E; h = 66 m.

A p r i l 1-30, 1960
.....

1960				1960			
Apr 1	✓ Up	iPKP	03 13 21	Apr 2	Sk	iP	20 09 52
	✓ Ki	iPKP	03 13 13				
		iSKP	03 15 50	" 2	✓ Up	iP	22 42 28
	✓ Sk	iPKP	03 13 17			i	22 42 38
		iSKP	03 16 03			i	22 43 25
		Fiji Islands. (h = 650 km).			✓ Ki	iP	22 43 10
						i	22 43 25
" 1	✓ Up	iP	14 23 15		✓ Sk	iP	22 43 06
		i	14 23 24			Western Iran.	
	✓ Ki	iP	14 22 30	" 2	✓ Up	iP	23 39 40
	✓ Sk	iP	14 22 46			i	23 39 43
		Off coast of Vancouver Island.				i	23 40 40
" 1	Up	iP	14 59 50		✓ Ki	iP	23 40 25
					✓ Sk	iP	23 40 18
" 1	Ki	i(P)	17 43 17			Iran.	
		i	17 43 19	" 3	✓ Up	iP	05 21 49 C
" 1	Sk	iP	18 54 03		✓ Ki	iP	05 21 19
" 1	Up	iP	20 39 10		✓ Sk	iP	05 21 47
" 1	Ki	iP	21 12 13			Bonin Islands region.	
" 2	Ki	iP	03 21 52			(h = 550 km).	
		i	03 21 55	" 3	✓ Up	iP	07 31 17 C
" 2	Ki	iP	08 58 07		✓ Ki	iP	07 30 36
		i	08 58 08			Off northeast coast of Honshu, Japan.	
" 2	Ki	iP	10 00 02	" 4	Ki	iP	10 29 40
		i	10 00 13	" 4	Ki	iP	11 12 05
" 2	Up	iP	12 05 17	" 4	Up	iP	13 22 53
		i	12 06 18			China.	
" 2	Ki	iP	13 31 17	" 4	Ki	iP	19 04 26
						Near west coast of Luzon Island, Philippine Islands.	

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960				1960					
Apr	4	Up	iP	21 04 43	Apr	7	Up	iP	08 33 11
		Ki	iP	21 04 26			i		08 33 20
			i	21 04 33			Ki	i(P)	08 34 15
		Near west coast of Luzon Island, Philippine Islands.			"	7	Up	iP	08 39 23
							i		08 39 32
"	4	Ki	iP	23 02 27	"	7	Up	iP	08 48 11
"	4	Ki	iP	23 30 41			Ki	iP	08 47 30
"	4	Up	iP	23 34 00			Off east coast of Honshu, Japan.		
			i	23 34 01	"	7	Ki	iP	10 40 47
			i	23 34 11	"	7	Up	iP	10 52 02
		Ki	iP	23 33 06	"	7	Ki	iP	11 48 15
			i	23 33 18	"	7	Up	1PKP	14 06 02
		Sk	iP	23 33 15			i		14 06 19
		Aleutian Islands.					iSKP		14 08 58
"	4	Sk	iP	23 39 53			Ki	i(PKP)	14 05 44
"	4	Sk	iP	23 47 19			iPKP		14 05 52
			i	23 48 38			iSKP		14 08 37
"	5	Up	1PKP	07 36 42			Sk	1PKP	14 05 57
			i	07 36 49			i		14 08 31
		Ki	1PKP	07 36 54			Fiji Islands region. (h = 500 km).		
			i	07 36 58	"	7	Up	iP	19 49 30
		Sk	1PKP	07 36 48	"	7	Ki	iP	19 51 43
		Sandwich Islands.			"	7/8	Up	1PKP	00 14 55
"	5	Sk	i(P)	11 46 31			i		00 14 58
"	5	Up	1PKP	12 55 15			iSKP		00 18 24
		Sk	1PKP	12 55 17			Ki	i(PKP)	00 14 36
		Sandwich Islands.					iPKP		00 14 49
"	5	Up	iP	17 27 55			iSKP		00 17 59
			i	17 28 05			Sk	1PKP	00 14 49
			i	17 29 45			iSKP		00 18 17
		Ki	iP	17 27 36			Tonga Islands. (h = 200 km).		
			i	17 27 39	"	8	Ki	i(P)	14 44 29
			i	17 27 45			i		14 46 57
			i	17 29 10	"	8	Up	iP	15 58 32
		Sk	iP	17 26 58	"	8	Up	iP	20 32 17
			i	17 28 04			i		20 34 54
		North Atlantic Ocean.			"	9	Up	iP	00 25 41
"	5	Ki	iP	19 25 06			Ki	iP	00 24 48
"	5	Up	iP	20 38 16					
"	7	Up	iP	03 23 20					

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960				1960			
Apr 9	✓ Up	iP	02 55 10	Apr 13	Ki	iP	05 00 38
	✓ Ki	iP	02 54 29	cont.	Andreeanof Islands, Aleutian Islands.		
	Near east coast of Honshu, Japan.						
" 9	Ki	iP	17 15 05	" 13	✓ Ki	iP	08 07 20
					✓ Sk	iP	08 07 56
					Manohuria.		
" 10	Up	i(P)	00 58 48	" 13	Up	iP	11 34 33
		i	00 58 54	" 13	Up	iP	12 48 05
		i	00 59 08	" 13	✓ Up	iP	12 50 27
" 10	Ki	iP	07 02 35			i	12 50 31
" 10	Up	iP	13 19 49			i	12 50 42
		i	13 19 53			i	12 51 05
	Ki	iP	13 19 16			i	12 50 12
		i	13 19 32		✓ Ki	iP	12 50 19
	Bonin Islands.					i	12 50 36
" 10	✓ Up	iP	20 37 10		✓ Sk	iP	12 50 07
		i	20 37 13			i	12 50 13
	✓ Ki	iP	20 36 17			i	12 50 20
		i	20 36 22		Guatemala-Mexico border.		
	✓ Sk	iP	20 36 47	" 13	✓ Up	iP	13 25 29
	Fox Islands, Aleutian Islands.				✓ Ki	iP	13 24 35
" 10	✓ Up	iP	22 10 34		Fox Islands, Aleutian Islands.		
		i	22 10 38	" 13	Up	iP	13 43 46
	✓ Ki	iP	22 11 40	" 13	Up	iP	14 14 12
		i	22 11 45	" 13	Up	iP	15 11 23
	✓ Sk	iP	22 11 16	" 13	Ki	i(P)	17 19 58
		i	22 11 18	" 13	Ki	i(P)	17 41 48
	Western Turkey.			" 13	Up	iP	20 26 08
" 12	✓ Up	iP	04 27 46	" 14	Ki	iP	00 04 57
		i	04 27 52	" 14	Ki	iP	19 37 41
		i	04 28 49	" 15	Ki	iP	08 06 05
	✓ Ki	iP	04 28 53	" 15	Up	iPKP	08 52 49
	✓ Sk	iP	04 28 27			i	08 52 51
	Western Turkey.				Sk	iPKP	08 52 44
" 12	Up	iP	07 25 04		Kermadec Islands.		
" 12	Up	iP	20 47 24	" 15	Up	iP	10 17 27
" 12	Up	iP	20 49 40			i	10 17 29
	Ki	iP	20 49 15				
	Sk	iP	20 49 46				
	Outer Mongolia.						
" 13	Up	iP	05 01 31				
		i	05 01 45				
	cont.						

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960				1960			
Apr 15	Ki	iP	10 16 47	Apr 18	✓ Up	iP	08 18 33
cont.			Near south coast of Hokkaido, Japan.			i	08 18 47
" 15	Up	iP	11 14 56			i	08 18 44
		i	11 14 59		✓ Ki	iP	08 18 01
	Ki	iP	11 14 13			i	08 18 05
			Near south coast of Hokkaido, Japan.		✓ Sk	iP	08 18 30
" 15	✓ Up	✓ iP	11 49 58			i	08 18 32
		i	11 52 31		✓ Gb	iP	08 18 52
	✓ Ki	✓ iP	11 49 17	" 18	Sk	iP	08 21 35
		i	11 49 31	" 18	Up	iP	08 27 59
	✓ Sk	✓ iP	11 49 51	" 18	Up	iP	11 26 56
		i	11 49 56		Ki	iP	11 25 55
		i	11 52 16	" 18	Ki	iP	11 46 58
	✓ Gb	✓ iP	11 50 20			i	11 48 29
		i	11 50 28			i	11 49 12
			Near north coast of Honshu, Japan. (h = 150 km).	" 19	Up	iP	01 24 29
" 15	Up	i(P)	13 16 08		Ki	iP	01 23 41
" 15	Up	iP	19 00 58				Kurile Islands.
		i	19 01 12	" 19	Up	iP	07 43 36
" 15	✓ Up	✓ iPKP	22 24 17			i	07 44 29
	✓ Ki	✓ iPKP	22 23 53			i	07 44 32
		i	22 24 04			i	07 45 51
	✓ Sk	✓ iPKP	22 24 14		Ki	i(P)	07 43 36
		i	22 24 21	" 19	Ki	iP	18 33 35
			New Hebrides Islands.	" 19	Up	iP	19 37 06
" 16	Ki	i(P)	08 34 57			i	19 37 20
" 16	Up	iP	08 38 39		Ki	iP	19 36 14
		i	08 38 41		Sk	iP	19 36 48
	Ki	iP	08 38 36		Gb	iP	19 37 22
" 16	Up	iP	20 49 29			i	19 37 34
	Ki	iP	20 48 42				Andreanof Islands, Aleutian Islands.
			Kurile Islands.	" 19	Up	iP	20 33 21
" 17	Up	iP	01 23 35		Ki	iP	20 32 33
	Ki	iP	01 22 41	" 19	Up	iP	20 43 59
			Unimak Island region.			i	20 44 03
" 17	✓ Up	✓ iPKP	22 07 51		Ki	iP	20 43 07
		i	22 07 53		Gb	iP	20 44 13
	✓ Ki	✓ iPKP	22 07 45				Fox Islands, Aleutian Islands.
	✓ Sk	✓ ePKP	22 07 57	" 19	Ki	iP	23 42 49
	✓ Gb	✓ iPKP	22 08 01				
			Fiji Islands. (h = 500 km).				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960				1960					
Apr	20	Ki	1P	10 40 32	Apr	22	Gb	1P	10 05 47
"	20	Up	i	12 43 57	"	22	Ki	1P	14 40 32
			i(Sg)	12 44 10	"	22	Up	1PKP	15 18 08
		Sk	e	12 44 19				i	15 18 12
			i(Sg)	12 44 44			Sk	ePKP	15 17 57
		Gb	1P	12 42 37			Kermadec Islands.		
			i	12 42 58	"	22	Up	1P	16 27 20
			i(Sg)	12 43 02				i	16 27 24
"	20	Up	1P	15 23 19			Ki	1P	16 27 07
"	20	Up	1P	15 26 41	"	22	Up	1P	19 00 07
"	20	Up	1P	17 02 17			Ki	1P	18 59 51
			i	17 02 30			Masbate, Philippine Islands.		
		Ki	1P	17 01 52	"	22	Up	i	20 46 11
		Gb	1P	17 02 23				i(pPKP)	20 46 29
"	20	Up	1P	19 30 31			Ki	1PKP	20 45 14
			i	19 30 34				ipPKP	20 46 11
			i	19 30 37			Tonga Islands. (h = 200 km).		
			ipP	19 31 16	"	23	Up	1P	06 33 14
		Ki	1P	19 30 43			Ki	1P	06 33 54
			i	19 30 46			Iran.		
		Sk	1P	19 30 59	"	23	Up	1P	13 17 18
			i	19 31 03				i	13 17 20
			i	19 32 25				i	13 17 25
		Gb	1P	19 30 54			Ki	1P	13 16 54
			ipP	19 31 37			Outer Mongolia.		
			i	19 32 52	"	23	Ki	1P	18 43 23
		Hindu Kush. (h = 200 km).			"	23	Up	eP	20 04 41
"	20	Ki	i(P)	20 25 43	"	23	Ki	1P	20 10 05
"	20	Up	1P	20 35 04	"	23	Up	eP	20 04 41
			i	20 35 05	"	23	Ki	1P	20 10 05
"	20	Up	1P	20 48 50	"	24	Up	1P	00 09 10
			i	20 49 00			Ki	1P	00 08 16
"	20	Ki	1P	21 07 23				i	00 08 25
		Hindu Kush.					Near Islands, Aleutian Islands.		
"	20	Ki	1P	21 34 08	"	24	Ki	1P	00 38 27
			i	21 34 28	"	24	Ki	1P	02 15 16
"	21	Gb	1P	07 31 45	"	24	Up	1P	03 35 01
"	21	Up	1P	09 40 17				i	03 35 13
"	21	Gb	1P	14 13 10				i	03 35 23

cont.

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960				1960			
Apr	26	Up	iP	21	36	43	
		Ki	iP	21	36	19	
			i	21	36	24	
		Sk	iP	21	36	52	
		Kansu Province, China.					
"	27	Ki	iP	04	50	13	
"	27	Up	iP	05	46	24	
			i	05	46	40	
"	27	Up	iP	12	38	37	
"	27	Ki	e(P)	12	44	37	
"	27	Up	iP	13	40	36	
			i	13	40	42	
"	27	Up	iP	13	46	31	
			i	13	46	43	
"	27	Up	iP	14	30	34	
			i	14	30	46	
			i	14	30	51	
"	27	Ki	iP	17	47	48	
		Southern Iran.					
"	27	Up	iP	22	56	06	
			i	22	56	09	
			i	22	56	18	
		Ki	iP	22	55	47	
			i	22	55	58	
		Sk	iP	22	56	15	
		Gb	iP	22	56	30	
			i	22	56	46	
		Off coast of Luzon, Philippine Islands.					
"	28	Up	eP	00	42	42	
			i	00	42	51	
"	28	Ki	iP	00	59	18	
			i	00	59	37	
		Fox Islands, Aleutian Islands.					
"	28	Sk	iP	01	00	21	
		Fox Islands, Aleutian Islands.					
"	28	Up	iPKP	02	29	10	
			i	02	29	16	
		cont.					
Apr	28	Ki	iPKP	02	29	26	
		cont. Sandwich Islands.					
"	28	Up	eP	03	49	27	
"	28	Up	iP	16	31	59	
		Gb	iP	16	31	08	
			i	16	31	26	
			i	16	31	29	
"	28	Up	iP	16	32	47	
			i	16	32	51	
		Sk	iP	16	33	16	
"	28	Up	iP	16	38	55	
			i	16	39	03	
			i	16	39	24	
		Ki	iP	16	40	01	
			i	16	40	07	
			i	16	42	43	
		Sk	iP	16	39	33	
			i	16	39	47	
		Dodecanese Islands.					
"	28	Up	i(P)	19	26	03	
			i	19	26	46	
			i	19	26	53	
			i(Sg)	19	26	56	
		Ki	e(Sg)	19	30	22	
		Sk	i(Sg)	19	27	12	
		Gb	iP	19	25	18	
			i(Sg)	19	25	32	
"	28	Ki	iP	19	59	20	
		Sk	iP	19	58	04	
"	28	Sk	iP	23	44	57	
"	29	Ki	iP	00	50	21	
			i	00	50	52	
		Sk	iP	00	51	45	
			i	00	51	54	
"	29	Up	iPKP	02	34	29	
		Ki	iPKP	02	34	45	
		Sk	iPKP	02	34	35	
		Sandwich Islands.					
"	29	Ki	i(P)	02	37	51	
		Sk	i(P)	02	37	55	
"	29	Ki	iPKP	04	02	07	
		Sandwich Islands.					

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960				1960					
Apr	29	Ki	iP i	06 04 30 06 07 26	Apr	29	Gb i iPP Celebes.	19 46 01 19 49 08 19 50 11	
"	29	Up	iP	07 24 59	"	29	Ki	iP i	20 03 01 20 03 36
"	29	Up	eP i	07 38 50 07 38 52	"	29	Up	iP e i iPP	20 57 59 21 00 50 21 01 28 21 02 00
"	29	Ki Sk	iP ePP Celebes.	13 46 40 13 51 03	"	29	Ki	iP i i iPP	20 57 44 20 57 49 21 01 17 20 58 08
"	29	Up	iPKP i i i	13 58 12 13 58 16 13 58 25 13 58 33	"	29	Sk	iP iPP	21 02 10
"	29	Ki Sk	iPKP iPKP i	13 57 54 13 58 10 13 58 11	"	29	Gb	iP ePP Celebes.	20 58 15 21 02 25
"	29	Gb	iPKP i i	13 58 24 13 58 36 13 58 47	"	30	Up	eP	00 37 25
Kermadec Islands.				"	30	Up	iP i i iPP	04 15 06 04 15 21 04 18 01 04 19 06	
"	29	Up Sk	iPKP iPKP i	15 05 13 C 15 05 06 15 05 12	"	30	Ki	iP i iPP	04 14 54 04 18 05 04 18 45
"	29	Gb	iPKP i	15 05 23 15 05 28	"	30	Sk	iP i i iPP	04 15 14 04 15 26 04 19 05 04 19 18
Kermadec Islands region.				"	29	Gb	iP	17 47 44	
"	29	Ki	iP i i	18 18 31 18 20 42 18 21 08	"	29	Sk	i(P) i	18 23 03 18 23 50
"	29	Sk	iP	18 19 42	"	29	Up	iP e iPP	19 45 46 19 49 15 19 49 46
"	29	Sk	i(P) i	18 23 03 18 23 50	"	29	Ki	iP i i i i(P) Sk eP i i iPP	19 45 33 19 45 45 19 45 54 19 49 12 19 46 05 19 46 07 19 46 15 19 49 53
"	29	Up	iP e iPP	19 45 46 19 49 15 19 49 46	"	30	Up	iP	10 18 39
"	29	Ki	iP i i i i(P) Sk eP i i iPP	19 45 33 19 45 45 19 45 54 19 49 12 19 46 05 19 46 07 19 46 15 19 49 53	"	30	Up Ki	iP iP	11 49 23 11 50 04
cont.					"	30	Up	iP	15 31 41 D
					"	30	Ki	iP i	21 00 41 21 00 46
					"	30	Ki	iP Banda Sea. (h = 600 km).	22 22 54

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960

Apr 30

Up

iP

22 27 27

i

22 27 29

i

22 27 39

Ingrid Pettersson

Nov. 2, 1960.

Markus Båth.

1960
May

Uppsala

Copied by

PRELIMINARY

SEISMOLOGICAL BULLETIN

UPPSALA, KIRUNA, SKALSTUGAN, and GÖTEBORG

Uppsala (Up): 59°51.5'N, 17°37.6'E; h = 14 m.
Kiruna (K1): 67°50.4'N, 20°25.0'E; h = 390 m.
Skalstugan (Sk): 63°34.8'N, 12°16.8'E; h = 580 m.
Göteborg (Gb): 57°41.9'N, 11°58.7'E; h = 66 m.

May 1 - 31, 1960

1960

1960

Year	Date	Station	Time	Year	Date	Station	Time
1960	May 1	Up 1P	03 06 12	1960	May 2	Up 1P	12 23 45 C
		i	03 06 23			i	12 23 49
		K1 1P	03 05 21			i	12 24 00
		Fox Islands, Aleutian Islands.				i	12 26 12
		i				i	12 27 02
	" 2	Up 1P	01 07 58			1PP	12 27 43
		i	01 08 06			K1 1P	12 23 34
		i	01 08 13			i	12 23 58
		K1 1P	01 07 44			i	12 27 20
		i	01 07 50			1PP	12 27 26
		1PP	01 09 20			1PKKP	12 40 35
		Sk 1P	01 08 14			Sk 1P	12 23 53
		i	01 08 19			i	12 23 58
		1PP	01 09 54			1(PF)	12 27 44
		Gb i	01 08 48			i	12 27 58
		i	01 09 00			Gb 1P	12 24 00
		Sinkiang Province, China.				1PP	12 28 12
						Celebes.	
	" 2	Up 1P	02 51 18		" 2	Up 1P	12 50 28
		i	02 51 21			i	12 50 29
		K1 eP	02 52 38			K1 1P	14 53 21
		Sk 1P	02 52 48			i	14 53 30
	" 2	Up 1PKP	04 36 10		" 2	Up 1P	15 41 30
		i	04 36 12			Sk eP	15 40 10
		Sk 1PKP	04 36 06			Kermadec Islands region.	
	" 2	Up 1P	08 53 29		" 2	Up 1P	18 21 58
		i	08 53 36			K1 1P	18 21 27
		K1 1P	08 54 20			Near east coast of Honshu, Japan.	
		i	08 54 22				
	" 2	Ki 1P	10 52 29		" 2	Up 1PKP	20 51 08
		Samar Island, Philippine Islands.				i	20 51 11
						Sk 1PKP	20 51 01
						Gb 1PKP	20 51 10
	" 2	Ki 1P	12 04 27			i	20 51 19
		Celebes.				Kermadec Islands region.	

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

Year	Date	Station	Phase	Time	Location
1960	May 2	Ki	1P	22 56 54	
"	3	Up	1P	07 06 39	Iran.
		i		07 06 45	
		Ki	1P	07 07 14	
		Sk	1P	07 07 13	
		i		07 07 18	
"	3	Up	1P	07 24 16	
"	3	Up	1P	08 05 25	China.
		i		08 05 29	
		i		08 05 34	
		Ki	1P	08 05 11	
		i		08 05 20	
		Sk	1P	08 05 37	
		i		08 05 45	
		Gb	1P	08 05 51	
"	3	Up	1PKP	08 15 14	Tonga Islands region.
		Ki	1PKP	08 15 05	
		Gb	1PKP	08 15 26	
"	3	Ki	e(P)	08 16 18	
			i(Sg)	08 16 53	
		Sk	e	08 19 34	
"	3	Ki	e(P)	08 25 57	
			i(Sg)	08 26 43	
"	3	Ki	1P	12 45 54	
"	3	Ki	1P	13 00 14	
"	3	Up	1PP	13 39 39	Celebes.
		Ki	1P	13 35 29	
		i		13 38 26	
		Sk	1PP	13 39 53	
"	3	Ki	1P	14 43 12	Near east coast of Honshu, Japan.
"	3	Up	1P	15 13 49	
"	3	Up	1P	21 40 36	
"	3	Up	1P	22 34 20	cont.
		i		22 34 30	
		i		22 34 36	
1960	May 3	Ki	1P	22 33 45	South of Honshu, Japan. (h = 150 km).
cont.		Sk	1P	22 34 16	
		Gb	1P	22 34 41	
"	3/4	Up	1PKP	00 15 52	Fiji Islands. (h = 600 km).
		Ki	1PKP	00 15 41	
		iSKP		00 18 13	
"	4	Up	1P	11 18 02	
		i		11 19 03	
		Sk	i(P)	11 18 21	
		i		11 19 35	
		Gb	1P	11 17 27	
		i		11 17 45	
"	4	Up	1P	12 50 22	
		i		12 50 36	
"	5	Up	1P	06 16 50	
"	5	Up	1P	08 22 20	
		i		08 22 27	
		Sk	1P	08 23 01	
		i		08 23 05	
"	5	Up	1P	11 36 34	Near east coast of Kamohatka.
		i		11 36 36	
		i		11 36 42	
		Ki	1P	11 35 42	
		i		11 36 28	
		Sk	1P	11 36 19	
		Gb	1P	11 36 56	
		iPoP		11 37 21	
"	5	Ki	i(P)	16 19 49	
"	5	Up	1P	17 24 39	
		i		17 24 42	
		Ki	1P	17 24 18	
		Gb	eP	17 25 01	
		i		17 25 20	
"	5	Up	1P	17 46 43	Near east coast of Hokkaido, Japan.
		i		17 47 59	
		i		17 48 02	
"	5	Ki	1P	19 31 31	

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960				1960					
May	5	Gb	1P	20 26 31	May	7	Ki 1P	19 46 46	
			1	20 26 37	cont.		Sk 1P	19 46 12	
			1	20 26 40			Gb 1P	19 45 28	
			1	20 26 46					
			1	20 27 29	"	8	Up 1PKP	05 49 20	
"	5	Up	1P	20 50 46			1	05 49 24	
			1	20 50 47			Ki 1PKP	05 49 06	
							Sk 1PKP	05 49 14	
"	6	Gb	1P	11 59 06			Gb 1PKP	05 49 27	
							Kermadec Islands.		
"	6	Up	1(PKP)	12 02 08	"	8	Up 1P	12 31 21	
							Ki 1P	12 31 28	
"	6	Up	1P	14 09 33			Sk 1P	12 31 47	
		Ki	1P	14 09 28			Hindu Kush (h = 200 km).		
		Sk	1P	14 09 48					
			1	14 10 07	"	8	Up 1P	13 52 34	
"	6	Gb	1P	18 07 44			Sk 1P	13 53 01	
							Hindu Kush.		
"	6	Up	1P	18 57 53	"	8	Up	1P	14 40 15
			1	18 58 04			1PoP	14 40 41	
		Ki	1P	18 57 08			Ki	1P	14 39 28
		Sk	1P	18 57 36			Sk	1P	14 40 03
		Gb	1P	18 58 13			Gb	1P	14 40 34
		Near east coast of Kamchatka.					Kurile Islands.		
"	6	Ki	1P	21 06 46	"	9	Up	1P	00 22 49
							1	00 22 51	
"	6	Up	1P	23 17 46			1	00 23 03	
		Ki	1P	23 18 59			Ki	1P	00 22 18
		Sk	1P	23 18 26			Sk	1P	00 22 48
							Gb	1P	00 23 06
							Ryukyu Islands.		
"	7	Up	1(P)	03 10 48	"	9	Up 1P	02 59 22	
							1	02 59 31	
"	7	Up	1(P)	07 14 42			Ki 1P	02 59 08	
							1	02 59 17	
"	7	Up	1P	07 30 37			Sk eP	02 59 27	
							Celebes Sea.		
"	7	Up	1P	11 38 12	"	9	Gb 1P	07 21 00	
		Ki	1P	11 38 59					
"	7	Up	1P	14 22 26	"	9	Ki 1(P)	08 13 51	
			1	14 22 29					
			1	14 22 47	"	9	Up 1P	14 46 33	
		Ki	1P	14 21 42			1	14 46 42	
		Sk	1P	14 22 13			Ki 1P	14 46 29	
		Gb	eP	14 22 46			1	14 46 38	
		Hokkaido, Japan.					Sk 1P	14 46 50	
"	7	Up	1P	19 45 31			Gb 1P	14 46 54	
			1	19 45 33			East Pakistan-India border.		
			1	19 45 41					

cont.

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960				1960			
May 9	Gb	1P	16 09 08	May 10	Sk	1P	23 28 45
" 9	Up	1P	16 38 12	cont. X	i		23 29 12
	i		16 38 15		Gb	1P	23 29 34
	Ki	1P	16 38 46		Near coast of western Honshu, Japan. (h = 100 km).		
	i		16 38 51	" 11	Ki	1P	05 24 05
	Sk	1P	16 38 14		i		05 24 06
	Gb	1P	16 37 50	" 11	Up	1P	07 38 00
	Atlantic Ocean.				i		07 38 04
" 9	Up	1P	17 07 24	" 11	Up	1P	12 01 45
" 9	Up	1P	17 55 40	" 11	Up	1P	13 28 55
" 9	Gb	1P	18 34 57	" 11	Sk	1P	13 29 24
" 9	Sk	1P	19 08 51		Italy.		
" 9	Gb	1P	19 17 34	" 11	Up	1P	14 10 51
	i		19 17 41		Ki	1P	14 11 55
" 10	Ki	1PKP	11 15 09	" 11	Up	1P	18 50 11
	i		11 15 22		1PP		18 54 22
	Sandwich Islands.				Ki	1P	18 49 51
" 10	Ki	1(P)	12 13 59		Sk	eP	18 50 12
" 10	Up	1P	15 18 19		1PP		18 54 23
" 10	Up	1P	15 38 07		Ceram Sea.		
" 10	Up	1P	16 27 53	" 11	Up	1P	19 50 42
" 10	Ki	1P	17 10 12	" 11	Up	1(P)	20 23 10
" 10	Up	1P	17 46 43		Ki	1P	20 22 06
	i		17 46 47		i		20 22 16
	Ki	1P	17 45 51		Sk	1P	20 22 39
	Sk	1P	17 46 27		i		20 22 44
	Gb	1P	17 47 05	" 11	Up	1(P)	20 48 13
	Off southeast coast of Kamchatka.				i		20 48 21
" 10	Up	1P	21 59 26	" 12	Up	1P	07 27 13
	i		21 59 29		i		07 27 16
	Ki	1P	22 00 03	" 12	Up	1P	08 53 43
	i		22 00 13	" 12	Ki	1P	13 29 19
	1PP		22 01 49		i		13 29 32
	Sk	1P	22 00 00	" 12	Sk	1P	13 32 10
	Gb	1P	21 59 39	" 12	Sk	1P	14 22 00
	Northeastern Saudi Arabia.			" 12	Sk	1P	14 57 33
" 10	Up	1P	23 29 13	" 12	Sk	1P	16 19 29
	Ki	1P	23 28 39				
	cont.						

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960				
May	12	Sk	1P	16 24 17
"	12	Up	1P	19 18 31
		Ki	1(P)	19 19 37
"	12	Up	1P	20 43 58
"	12	Up	1P	22 45 23
			i	22 45 26
			i	22 45 28
		Ki	1P	22 45 21
			i	22 45 32
		Sk	1P	22 45 08
			i	22 45 24
Panama.				
"	12	Sk	1P	23 00 16
"	12	Up	1P	23 13 27
		Ki	1P	23 13 25
		Sk	1P	23 13 11
Near south coast of Panama.				
"	13	Sk	1P	00 43 13
"	13	Sk	i(P)	01 23 06
"	13	Ki	1P	01 55 39
"	13	Up	i	08 39 31
			i	08 39 39
			i(Sg)	08 39 44
		Ki	e	08 41 43
			i(Sg)	08 42 15
		Sk	i	08 38 14
			i	08 38 22
			i(Sg)	08 39 24
		Gb	1P	08 38 07
			i(Sg)	08 38 46
			i	08 38 55
"	13	Ki	1P	10 13 14
Revilla Gigedo Islands region.				
"	13	Gb	1P	14 32 22
"	13	Up	1P	16 11 05
"	13	Up	1P	16 17 58
			i	16 18 10
cont.				

1960				
May	13	Ki	1P	16 17 04
cont.			i	16 17 15
			i	16 17 19
			i	16 25 13
		Sk	1P	16 17 32
			i	16 17 47
		Gb	1P	16 18 17
			i	16 18 32
Alaska Peninsula.				
"	13	Up	1P	16 46 36
			i	16 46 40
		Ki	1P	16 46 48
			i	16 47 07
		Sk	1P	16 46 52
"	13	Up	1PKP	21 06 27
		Ki	1PKP	21 06 11
		Sk	1PKP	21 06 19
Kermadec Islands region.				
"	13	Up	1P	21 11 18
			i	21 11 55
		Sk	1P	21 11 12
"	14	Up	1P	11 28 09
			i	11 28 12
			i	11 28 16
"	14	Ki	1P	11 51 54
			i	11 52 07
"	14	Up	1P	16 28 17
			i	16 28 20
"	14	Up	1P	16 34 59
			i	16 35 01
"	14	Up	1P	17 54 14
			i	17 54 19
		Ki	1P	17 53 32
		Sk	1P	17 54 05
		Gb	1P	17 54 36
Near south coast of Hokkaido, Japan.				
"	14	Up	1P	22 30 24
			i	22 30 31
		Ki	1P	22 29 30
		Sk	1P	22 30 08
		Gb	1P	22 30 45
Kamohatka.				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960					
May	14	Sk	eP	23 09 22	
"	15	Up	1P	05 29 28	
"	15	Sk	1P	06 35 41	
"	15	Up	1P	13 42 11	
			i	13 42 24	
		Ki	1P	13 41 47	
		Sk	1P	13 42 17	
		Gb	1P	13 42 32	
			i	13 42 45	
Near east coast of Formosa.					
"	15	Up	1P	21 47 58	
			i	21 48 10	
		Ki	1P	21 47 05	
			iPoP	21 47 56	
		Sk	1P	21 47 34	
		Gb	1P	21 48 12	
			i	21 48 15	
Alaska Peninsula.					
"	16	Up	1P	00 24 20	
"	16	Ki	1P	04 34 26	
			i	04 34 36	
		Sk	1P	04 34 30	
"	16	Up	1P	04 37 24	
"	16	Gb	1P	07 32 13	
"	16	Up	1P	10 00 06	
			i	10 00 24	
			i	10 00 28	
			i	10 00 33	
		Sk	e	10 01 59	
			i	10 02 18	
			i	10 02 26	
		Gb	i(P)	10 00 22	
			i	10 00 41	
			i	10 00 59	
			i(L)	10 01 07	
Explosion at Norrköping, Sweden.					
"	16	Up	1P	14 03 33	
"	16	Up	1P	20 38 53	
"	17	Up	1P	07 30 49	
			i	07 30 52	

1960					
May	17	Up	1P	09 23 51	
			i	09 23 59	
		Ki	1P	09 22 13	
			i	09 22 17	
		Sk	1P	09 23 04	
			i	09 23 10	
Svalbard region.					
"	17	Gb	1P	15 47 32	
			i	15 47 49	
"	17	Up	1P	18 02 39	
"	17	Up	1P	23 37 17	
			i	23 37 24	
		Sk	1P	23 37 14	
"	18	Up	1P	06 46 47	
			i	06 46 59	
			i	06 47 03	
		Ki	1P	06 46 16	
			i	06 46 28	
			i	06 49 31	
		Sk	1P	06 46 46	
			i	06 46 59	
		Gb	1P	06 47 04	
			i	06 47 15	
Ryukyu Islands. (h = 100 km).					
"	18	Up	1P	06 56 19	
"	18	Up	1P	08 48 43	
			i	08 48 47	
			i	08 48 53	
			1PP	08 50 17	
		Ki	1P	08 49 20	
			i	08 49 22	
			i	08 49 32	
			1PP	08 50 58	
			i	08 51 13	
		Sk	1P	08 49 18	
		Gb	1P	08 48 51	
			i	08 49 05	
Persian Gulf.					
"	18	Up	1P	09 06 56	
			i	09 06 58	
"	18	Ki	1P	09 13 40	
			i	09 13 52	
"	18	Up	1P	14 03 19	
"	18	Ki	1P	16 26 35	

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960				1960			
May	19			May	19		
		Up	1P			Up	1P
			1			Sk	1P
			1PP				
			1		20	Up	1P
		Ki	1P				1
			1			Ki	1P
			1			Sk	1P
			1PP			Gb	1P
		Sk	1P			Persian Gulf.	
			1PP				
		Gb	1P		20	Up	1(Sg)
			1				1
			1PP			Sk	e(Sg)
			1				
		Hindu Kush. (h = 200 km).			20	Gb	1P
	19	Up	1P		20	Up	1PKP
		Gb	1P				1
						Ki	1PKP
	19	Up	1P				1
			1				1
		Ki	1P			Sk	1PKP
			1				1
		Sk	1P			Gb	1PKP
		Gb	1P				1
			1			Norfolk Island.	
			1		20	Gb	1P
		Mascarene Islands region.			20	Gb	1(P)
	19	Up	1P		20	Sk	1P
	19	Ki	1(P)		21	Up	1P
	19	Up	1P		21	Gb	1P
		Ki	1P				
			1			21	Up
		Fox Islands, Aleutian Islands.				Ki	1P
	19	Up	1P			Sk	1P
		Ki	1P			Gb	1P
		Gb	1P				1
						Near west coast of Greece.	
	19	Up	1		21	Up	1P
			1(Sg)			Ki	1P
			1				1
		Ki	1P			Sk	1P
			1(Sg)			Gb	1P
		Sk	e			Luzon Island, Philippine Islands.	
			1				
			1(Sg)		21	Up	1PKP
	19	Ki	1P				1
						cont.	

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960
May 21
cont.

✓	1PP	10 23 22
✓	1(PKIP)	10 32 00
✓	i	10 32 05
✓	K1 1PKP	10 21 56
✓	1	10 22 04
✓	1PP	10 23 48
✓	Sk 1PKP	10 21 49
✓	1	10 22 03
✓	1PP	10 23 14
✓	Gb 1PKP	10 21 43
✓	1	10 21 50
✓	1	10 22 08
✓	1PP	10 22 59
✓	1	10 23 32

Near coast of Chile.

" 21

✓	Up 1PP	13 20 25
✓	K1 1PKP	13 19 04
✓	1	13 19 10
✓	Sk 1PKP	13 18 53
✓	Gb 1PKP	13 19 01

Chile.

" 22 Gb 1P 01 18 57

" 22

✓	Up 1PKP	08 29 55
✓	K1 1PKP	08 30 05
✓	Sk 1PKP	08 29 52
✓	1	08 29 56

Chile.

" 22 Up 1P 09 34 53

" 22 Ki 1P 09 51 18
i 09 51 21

" 22

✓	Up 1PKP	10 49 33
✓	1	10 49 41
✓	K1 1PKP	10 49 41
✓	1PP	10 51 39
✓	Sk 1PKP	10 49 31
✓	Gb 1PKP	10 49 24

Near coast of Chile.

" 22

✓	Up 1PKP	10 51 45
✓	1PP	10 53 12
✓	1PKIP	11 01 37
✓	K1 1PKP	10 51 46
✓	1	10 51 52
✓	1PP	10 53 42
✓	Sk 1PKP	10 51 36
✓	1	10 51 52
✓	Gb 1PKP	10 51 27
✓	1	10 51 45

Near coast of Chile.

1960
May 22

Up	1P	11 08 33
	i	11 08 40
	1	11 08 49
K1	1P	11 08 12
	1	11 08 19
Sk	1P	11 08 50

Babuyan Islands. (h = 200 km).

" 22

✓	K1 1PKP	12 35 46
✓	1	12 36 24

Chile.

" 22 Up 1P 12 57 05

" 22 Up 1P 13 11 06

" 22 Gb 1P 15 42 13

" 22 Up 1P 19 01 35

" 22

✓	Up 1PKP	19 14 46
✓	1	19 14 55
✓	1PP	19 16 21
✓	1	19 16 29
✓	1(PKIP)	19 24 57
✓	1	19 25 14
✓	K1 1PKP	19 15 03
✓	1PP	19 16 55
✓	Sk 1PKP	19 14 54
✓	1	19 15 03
✓	1PP	19 16 24
✓	Gb 1PKP	19 14 47
✓	1	19 14 58
✓	1PP	19 16 05

Near coast of Chile.

" 22

✓	K1 1PKP	19 29 42
✓	Sk 1PKP	19 29 36

Near coast of Chile.

" 22

✓	Up 1PKP	19 30 01
✓	K1 1PKP	19 30 08
✓	Sk 1PKP	19 29 59
✓	Gb 1PKP	19 29 54
✓	1	19 30 01

Near coast of Chile.

" 22

Up	1PKP	19 30 15
Gb	1PKP	19 30 14
	1PP	19 31 32

Near coast of Chile.

" 22

Up	1P	21 21 40
Gb	1P	21 21 48

Up = Uppsala, K1 = Kiruna, Sk = Skalstugan, Gb = Göteborg

Year	Date	Station	Time	Time	Time	Year	Date	Station	Time	Time	Time
1960	May 22	Up	1P	22 26 51		1960	May 23	K1	1PKP	01 00 46	
			1	22 30 23		cont.		Sk	1PKP	01 00 37	
		K1	1P	22 26 42				Chile.			
		Sk	1P	22 26 42			"	23	Up	1PKP	01 10 08
		Gb	1P	22 26 38					K1	1PKP	01 10 15
	"	22	Up	1PKP	22 33 03				1		01 10 28
			1(PKP)	22 34 22				Chile.			
		K1	1PKP	22 33 11			"	23	K1	1PKP	01 53 58
		Sk	1PKP	22 33 01				Near coast of Chile.			
			1(PKP)	22 34 18			"	23	Up	1PKP	03 05 33
		Gb	1PKP	22 32 57					K1	1PKP	03 05 39
			1(PKP)	22 34 16					Sk	1PKP	03 05 29
		Chile. Probably two shocks.						Southern Chile.			
	"	22	K1	1P	23 23 43		"	23	Up	1PKP	03 15 22
	"	22	Up	1PKP	23 25 57				K1	1PKP	03 15 30
			K1	1PKP	23 26 05				1		03 15 35
			Sk	1PKP	23 25 56				Sk	1PKP	03 15 23
			Gb	1PKP	23 25 52				Gb	1PKP	03 15 17
		Chile.						Near coast of Chile.			
	"	22	K1	1PKP	23 48 34		"	23	Up	1PKP	05 32 32
			Sk	1PKP	23 48 24				1		05 32 42
		Chile.							K1	1PKP	05 32 39
	"	22	K1	1P	23 51 40				1		05 32 44
			1	23 51 43					Sk	1PKP	05 32 30
			Gb	1P	23 51 31				1		05 32 42
	"	23	Up	1PKP	00 15 06				Gb	1PKP	05 32 28
			K1	1PKP	00 15 13				1		05 32 37
			1	00 15 23				Chile.			
			Sk	1PKP	00 15 05		"	23	Up	1PKP	07 28 38
			Gb	1PKP	00 15 01				K1	1PKP	07 28 39
			1	00 15 08					1		07 28 46
		Chile.							Sk	1PKP	07 28 30
	"	23	Up	1PKP	00 44 42				Gb	1PKP	07 28 19
			1PP	00 46 21					1		07 28 30
			1	00 47 24				Off coast of Chile.			
			1	00 47 33			"	23	K1	1PKP	08 32 22
			K1	1PKP	00 44 50			Near coast of Chile.			
			1PP	00 46 44			"	23	Up	1(P)	09 01 11
			Sk	1PKP	00 44 41		"	23	K1	1PKP	10 11 26
			Gb	1PKP	00 44 37				1		10 11 31
			1	00 47 33				Chile.			
			1	00 47 38			"	23	Up	1PKP	10 57 06
			1	00 47 56					K1	1PKP	10 57 13
		Near coast of Chile.						cont.			
	"	23	Up	1PKP	01 00 39						
		cont.									

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960				1960					
May	23	Sk	1PKP	10 57 05	May	25	Up	1P	05 51 09
cont.	X	Chile.						1	05 51 17
								1	05 51 19
"	23	Ki	1(P)	11 14 41	"	25	K1	1(P)	08 49 53
"	23	Ki	1P	14 19 41				1	08 50 22
								1	08 50 52
"	23	Up	1PKP	16 33 31	"	25	Up	1PKP	08 53 49
		Ki	1PKP	16 33 35				1	08 54 02
		Sk	1PKP	16 33 26				1	08 55 59
		(Chile).					K1	1PKP	08 53 48
"	23	Up	1P	17 16 34				1	08 53 57
"	24	Ki	1P	02 00 05				1	08 56 15
		i		02 00 13				1PP	08 56 28
"	24	Up	1P	07 54 24			Sk	1PKP	08 53 48
		i		07 54 27				1	08 54 01
"	24	Ki	1P	07 58 33			Off coast of Chile.		
"	24	Up	1P	08 38 05	"	25	K1	1P	08 58 05
		Ki	1P	08 36 40				1	08 58 19
		i		08 37 32	"	25	Up	1P	10 33 21
		Sk	1P	08 38 19				1	10 33 26
"	24	Ki	1P	08 56 32			K1	1P	10 33 01
"	24	Up	1P	10 13 03				1	10 33 14
		Ki	1P	10 12 38			Sk	1P	10 33 18
								1	10 33 24
"	24	Up	1PKP	15 06 45	"	25	Up	1P	10 59 31
		i		15 06 47	"	25	K1	1(P)	12 03 47
		i		15 06 57				1	12 04 54
		i		15 07 05	"	25	Up	1P	12 57 45
		i		15 07 12				1	12 57 50
		K1	1PKP	15 06 25			K1	1P	12 58 20
		i		15 06 30				1	12 58 42
		i		15 06 33			Sk	1P	12 58 19
		i		15 06 37	"	25	K1	1P	13 04 40
		Sk	1PKP2	15 06 56	"	25	K1	1P	13 51 54
		i		15 07 06				1	
		South Island, New Zealand.					Halmahera.		
"	24	K1	1(PKP)	20 52 02	"	25	Up	1PKP	15 17 35
			1PKP	20 52 10				K1	1SKP
		Sk	1PKP	20 52 06			Fiji Islands. (h = 600 km).		
		Southern Chile.			"	25	Up	1P	17 58 13 0
"	25	K1	1P	04 57 34	"	25	Up	1(P)	19 14 36
		i		04 57 36	"	25	K1	1PKP	19 40 55
"	25	K1	1P	05 19 50			Chile.		

Up = Uppsala, K1 = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960			
May	25	K1 1P	22 28 20
"	26	Up 1P Sk 1P	00 52 27 00 53 11
"	26	Sk 1P	00 59 56
"	26	K1 1P Sk 1P	01 48 17 01 48 08
"	26	Up 1P K1 1P i i Sk 1P	05 14 40 05 15 58 05 16 05 05 16 19 05 15 23
		Albania-Greece border.	
"	26	Up 1P Sk 1P	05 42 26 05 43 10
"	26	K1 1P	15 27 45
"	26	Up 1P K1 1P Sk 1P	18 17 03 18 17 04 18 17 18
"	26	Sk 1(P)	18 37 26
"	26	Sk 1P	19 12 14
"	26	Sk 1P	19 52 52
"	26	Up 1P i K1 1P i Sk 1P i i	20 15 15 20 15 30 20 15 09 20 15 28 20 15 31 20 15 46 20 15 51
		Eastern India.	
"	26	Up 1P i Sk 1P	20 38 45 20 38 51 20 39 24
"	27	K1 1P i	00 42 23 00 42 32
"	27	Up 1P i K1 1P i i	01 33 43 01 33 48 01 33 26 01 34 47 01 35 18
		cont.	

1960			
May	27	Sk 1P	01 33 53
		oont.	
"	27	K1 1P	02 24 01
"	27	Up 1PKP K1 1PKP Sk 1PKP	03 36 32 03 36 31 03 36 23
		Off coast of Chile.	
"	27	Up 1P i	05 51 33 05 51 47
"	27	Up 1P	18 02 52
"	27	Up ePKP K1 1PKP i Sk ePKP Gb 1PKP i	23 26 07 23 26 11 23 26 17 23 26 05 23 25 57 23 26 06
		Off coast of Chile.	
"	27	K1 1P i Sk 1P	23 39 48 23 39 50 23 40 37
"	28	K1 1P	01 41 44
"	28	K1 1PKP	03 25 05
		Chile.	
"	28	Sk 1P	06 25 11
"	28	Sk 1P	09 46 36
"	28	K1 1P Sk 1P	11 03 16 11 03 07
"	28	K1 1PKP i Sk 1PKP	11 24 43 11 24 53 11 24 44
		Chile.	
"	28	Up 1P K1 i(P) Sk 1P Gb 1P	19 27 45 G 19 28 55 19 28 24 19 27 26
"	29	Sk 1P	04 55 25
"	29	Up ePKP 1PP	07 58 35 07 59 58
		oont.	

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960	May 29	Ki	1PKP	07 58 32
cont.			1	07 58 42
			1PP	08 00 24
		Sk	1PKP	07 58 23
		Gb	ePKP	07 58 12
			1	07 58 46
		Chile.		
"	29	Up	1P	08 31 52 C
		Ki	1P	08 31 26
		Sk	1P	08 31 54
		Gb	1P	08 32 06
		Ryukyu Islands.		
"	29	Up	1PKP	08 53 28
		Ki	1PKP	08 53 24
			1	08 53 34
		Sk	1PKP	08 53 14
		Gb	1PKP	08 53 04
		Southern Chile.		
"	29	Ki	eP	14 24 24
			1	14 24 38
		Near coast of Chile.		
"	29	Up	1PKP	21 43 02
		Ki	1PKP	21 43 09
			1	21 43 18
		Sk	1PKP	21 43 00
		Gb	1PKP	21 42 54
		Near coast of southern Chile.		
"	30	Up	1P	07 38 31
			1	07 38 33
			1	07 39 36
			1	07 39 38
"	30	Sk	1P	08 13 50
"	30	Sk	1P	08 15 53
"	30	Up	1PKP	08 49 19
			1	08 49 24
			1	08 49 28
		Ki	ePKP	08 49 04
			1	08 49 19
		Sk	1PKP	08 49 11
			1	08 49 23
		Gb	1PKP	08 49 24
			1	08 49 36
		Kermadec Islands region.		
"	30	Up	1P	16 18 30
		cont.		

1960	May 30	Ki	1P	16 18 12
cont.		Sk	eP	16 18 46
		Near southwest coast of Luzon, Philippine Islands.		
"	30	Up	1P	19 32 18
			1	19 32 19
"	31	Up	1P	00 33 04
			1	00 33 09
		Ki	1P	00 33 40
		Sk	1P	00 34 34
"	31	Up	1PKP	02 59 01
		Ki	1PKP	02 59 09
		Sk	1PKP	02 59 00
		Gb	1PKP	02 59 00
		Chile.		
"	31	Up	1P	03 58 04
		Ki	1P	03 56 21
			1S	03 57 39
		Sk	1P	03 57 05
			1S	03 58 59
		Gb	1P	03 58 38
		Arctic Ocean.		
"	31	Gb	1P	05 34 27
"	31	Up	1P	11 13 27
			1	11 13 36
			1P'P'	11 41 31
			1	11 41 33
		Ki	1P	11 13 36
			1	11 13 43
			1P'P'	11 41 28
		Sk	1P	11 13 13
			1P'P'	11 41 49
		Gb	1P	11 13 09
			1	11 13 17
			1P'P'	11 41 38
		Leeward Islands.		
"	31	Ki	1P	11 53 31
		Sk	1P	11 53 09
		Leeward Islands region.		
"	31	Ki	1P	14 35 11
			1	14 35 37
"	31	Up	1P	14 40 50
"	31	Up	1P	16 12 58

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960

May	31	Ki	1P	16 38 58
"	31	Up	1(P)	17 33 36
"	31	Up	1P	19 05 53
"	31	/Up	1P	21 13 09
		/Ki	1P	21 13 04
			1PP	21 17 05
		/Sk	1P	21 13 20

Java Sea.
(h = 600 km).

Ingrid Pettersson
Dec. 6, 1960.

Markus Båth.

1960

June

Copied #3

Uppsala

PRELIMINARY
SEISMOLOGICAL BULLETIN

UPPSALA, KIRUNA, SKALSTUGAN, and GÖTEBORG

Uppsala (Up): 59°51.5'N, 17°37.6'E; h = 14 m.
Kiruna (Ki): 67°50.4'N, 20°25.0'E; h = 390 m.
Skalstugan (Sk): 63°34.8'N, 12°16.8'E; h = 580 m.
Göteborg (Gb): 57°41.9'N, 11°58.7'E; h = 66 m.

June 1 - 30, 1960.
.....

1960				1960			
June	Day	Station	Time	June	Day	Station	Time
	1	Up	iP 00 36 19		2	✓ Up	iPKP 06 17 12
						✓ 1	06 17 18
	1	✓ Up	iPKP 05 21 51		✓ X Ki	iPKP 06 17 19	
		✓ Ki	e(PKP) 05 21 47			✓ 1	06 17 26
			iPKP 05 22 02			✓ iPKP	06 19 43
			i 05 39 51			✓ Sk	iPKP 06 17 11
		Chile.				✓ 1	06 17 16
						✓ Gb	iPKP 06 17 12
	1	Up	iP 08 08 07			Southern Chile.	
	1	Up	iP 14 59 42		2	Ki	iP 07 20 17
						Sk	iP 07 22 57
	1	Up	iP 15 14 49				
	1	Ki	iP 15 49 33		2	✓ Up	i 07 31 21
						✓ 1	07 31 40
	1	Up	iP 18 40 19			✓ Ki	iP 07 30 17
			i 18 40 26			✓ Sk	iP 07 30 23
						✓ 1	07 32 02
						Iran.	
	1	Up	iP 19 13 30		2	✓ Up	iPKP 08 05 56
	1	Sk	iP 22 45 26			✓ Ki	iPKP 08 05 46
						✓ Sk	iPKP 08 05 55
	1	Ki	iPKP 21 32 10			✓ Gb	iPKP 08 05 54
		Near coast of Chile.				New Britain.	
	2	Up	iP 02 05 16		2	✓ Ki	iPKP 08 55 16
		Ki	iP 02 05 01			✓ Sk	iPKP 08 55 07
			i 02 06 51			Near coast of Chile.	
		Sk	iP 02 05 22				
		Near south coast of Mindanao, Philippine Islands.			2	✓ Up	iP 12 49 22 G
						✓ 1	12 49 26
						✓ Ki	iP 12 50 02
						✓ Sk	iP 12 49 58
	2	Ki	i(PKP) 04 14 34			✓ Gb	iP 12 49 35
			i 04 14 43			Iran.	
	2	Up	iP 04 30 17		2	Up	iP 18 19 00
		Sk	iP 04 30 35			Ki	iP 18 19 09

cont.

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960				
June 2	Sk	1P	18 18 46	
cont.	Leeward Islands region.			
" 2	Up	1P	19 02 51	
" 2	Up	1PKP	19 17 24	
		1SKP	19 20 17	
	Ki	1PKP	19 17 18	
		1SKP	19 19 53	
	Sk	1SKP	19 20 07	
	Gb	1PKP	19 17 39	
		1SKP	19 20 27	
	Fiji Islands (h = 550 km).			
" 2	Up	1PKP	20 06 48	
	Ki	1PKP	20 06 47	
	Gb	1PKP	20 07 02	
	Fiji Islands (h = 550 km).			
" 3	Up	1P	03 42 09	
		i	03 42 18	
	Sk	1P	03 42 02	
	Gb	1P	03 42 30	
" 3	Ki	1P	04 27 43	
" 3	Gb	1P	05 26 41	
" 3	Up	1P	07 25 52	
		i	07 26 00	
		i	07 30 39	
" 3	Sk	1P	09 58 43	
" 3	Sk	1P	10 19 30	
" 3	Up	1(P)	12 41 54	
		i	12 42 37	
		i	12 42 48	
" 3	Up	1SKP	13 35 33	
		Ki	1SKP	13 35 07
		Sk	1SKP	13 35 25
		Gb	1SKP	13 35 12
	Fiji Islands (h = 600 km).			
" 3	Up	1PKP	13 41 44	
		i	13 41 49	
		i	13 44 20	
			1SKP	13 44 32
	Ki	1PKP	13 41 41	
		1SKP	13 44 06	
	Sk	1PKP	13 41 40	
			i	13 41 50
cont.				

1960				
June 3		1SKP	13 44 24	
cont.	Gb	1PKP	13 41 52	
	Fiji Islands (h = 600 km).			
" 3	Gb	1P	14 04 36	
" 3	Ki	1P	15 53 51	
" 3	Up	1P	16 29 03	
		i	16 29 13	
		i	16 29 28	
	Ki	1P	16 28 21	
	Sk	1P	16 28 58	
	Gb	1P	16 29 24	
		i	16 29 26	
	Near south coast of Hokkaido, Japan. (h = 100 km).			
" 3	Up	1P	17 36 50	
		i	17 36 55	
" 3	K1	1PKP	18 36 52	
		1PKP	18 36 35	
	Off coast of southern Chile.			
" 3	Up	eP	20 07 29	
" 3	Up	1P	20 34 12	
		Sk	eP	20 33 53
" 3	Up	1P	21 50 18	
		Ki	1P	21 49 49
	Gulf of California.			
" 3	Ki	1P	22 08 07	
" 4	Up	1P	02 39 53	
		Ki	1P	02 39 34
		Sk	1P	02 39 35
		Gb	1P	02 39 49
	Near coast of Jalisco, Mexico.			
" 4	Up	1P	02 43 20	
" 4	Up	1P	03 02 14	
" 4	Up	1P	03 31 01	
		i	03 31 05	
	Ki	1P	03 31 25	
		i	03 31 30	
	Sk	1P	03 31 25	
	Gb	eP	03 31 12	

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960				1960					
June	4	✓ Up	iP	08 21 00	June	6	Up	iP	09 06 44
		✓ Ki	iP	08 21 27	"	6	Up	iP	09 51 59
"	4	Up	iP	08 56 47	"	6	Up	iP	11 56 04
		Ki	iP	08 57 54	"	6	Up	iPKP	23 48 37
		Sk	iP	08 57 25			Ki	iPKP	23 48 27
"	4	Up	iP	10 26 50			Gb	iPKP	23 48 47
		Ki	iP	10 26 19			South of Fiji Islands.		
		Sk	iP	10 26 46			(h = 600 km).		
		Volcano Islands region.			"	7	Ki	iPKP	05 41 42
"	4	✓ Up	iP	11 12 08			Sk	iPKP	05 41 36
		✓ Ki	iP	11 12 45			Southern Chile.		
		✓ Sk	iP	11 12 04	"	7	Up	iP	13 07 45
		✓ Gb	iP	11 11 42			i		13 07 50
		Azores Islands region.					i		13 08 48
"	5	Up	iP	19 13 55			✓ Ki	iP	13 06 51
"	5	Up	iPKP	19 50 29			✓ Sk	iP	13 07 28
			i	19 50 32			✓ Gb	iP	13 08 06
			i	19 50 48			Near east coast of Kamohatka.		
		Sk	iPKP	19 50 22	"	7	Sk	iP	13 14 55
			i	19 50 27			Off coast of southern Chile.		
		Gb	iPKP2	19 50 49	"	7	Sk	iP	14 21 26
		Kermadec Islands.			"	7	Up	iP	15 44 06
"	6	✓ Up	iP	01 29 30			i		15 44 14
			i	01 29 33			i		15 44 19
			i	01 29 38			✓ Sk	iP	15 44 48
		✓ Ki	iP	01 28 51			✓ Gb	eP	15 44 26
			i	01 28 54			Arabian Sea.		
			i	01 29 03	"	8	Up	iP	06 40 23
			iPKP	01 31 25			i		06 40 27
		✓ Sk	iP	01 29 04			Sk	iP	06 39 16
			i	01 29 07	"	8	Up	iP	08 35 41
		✓ Gb	iP	01 29 33			i		08 35 49
			i	01 29 37	"	8	Sk	iP	08 39 53
			i	01 29 44	"	8	Up	iP	09 34 41
		Off coast of northern California.					i		09 34 44
"	6	Up	iPKP	06 14 51			i		09 34 57
			i	06 14 55			i		09 35 06
			i	06 15 27			Probably explosion.		
			i	06 15 53	"	8	Up	iP	09 36 35
		✓ Ki	iPKP	06 15 03			i		09 36 51
			i	06 15 31			Probably explosion.		
		✓ Sk	iPKP	06 14 50	"	8	Up	iP	09 36 35
			i	06 14 55			i		09 36 51
			i	06 15 26			Probably explosion.		
		✓ Gb	iPKP	06 14 42	"	8	Up	iP	09 36 35
			i	06 14 47			i		09 36 51
		Near coast of Chile.					Probably explosion.		

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960				1960						
June 8	✓	Up	iP	16 27 39	June 10	Ki	iPKP	09 27 03		
	✓	Ki	iP	16 28 05		Sk	iPKP	09 27 37		
	✓		i	16 28 13		Samoa Islands region.				
	✓	Sk	iP	16 27 28	" 10	Up	iP	14 22 03		
	✓		i	16 27 36	" 10	Sk	iP	15 09 38		
	✓	Gb	iP	16 27 19		North Atlantic Ocean.				
" 9		Up	iP	02 49 35	" 10	Up	iP	15 22 58		
			i	02 49 42			i	15 23 00		
			i	02 49 53	" 10	Up	i(P)	16 21 27		
			iS	02 53 54			i	16 23 01		
			i	02 53 56	" 10	Up	iP	19 10 14		
		Ki	iP	02 50 18	" 10	Up	iP	20 52 09		
		Sk	e	02 50 32	" 10	Up	iP	15 33 00		
			e	02 55 41			i	15 33 05		
		Gb	iP	02 49 41			iPP	15 34 23		
			i	02 49 52		✓	Ki	iPKP	15 32 48	
			iPP	02 50 13			i	15 32 58		
		Eastern Turkey.				✓	Sk	iPKP	15 32 59	
" 9		Up	iP	05 03 15		✓	Gb	iPKP	15 33 12	
		Ki	iP	05 04 02			i	15 33 21		
			i	05 04 45		D'Entrecasteaux Islands.				
" 9		Sk	iP	05 12 00	" 11	✓	Up	iPKP	16 56 33	
" 9	✓	Up	iP	08 28 31			iPP	16 57 57		
			i	08 28 34		✓	Ki	iPKP	16 56 21	
			i	08 28 36			i	16 56 27		
		Sk	iP	08 29 13		✓	Gb	iPKP	16 56 45	
		Strait of Otranto.					i	16 56 51		
" 9	✓	Sk	iPKP	11 43 12		D'Entrecasteaux Islands.				
			iPKS	11 46 37	" 11	Ki	e(P)	17 07 16		
		New Hebrides Islands.			" 12	✓	Up	iPKP	04 15 03	
" 9		Up	iP	16 57 46			iSKP	04 17 52		
" 9	✓	Up	iP	17 54 37			i	04 18 06		
			i	17 54 46		✓	Ki	iPKP	04 14 54	
		✓	Ki	iP	17 55 13			iSKP	04 17 30	
		✓	Sk	iP	17 54 30		✓	Gb	iPKP	04 15 17
			i	17 54 39		South of Fiji Islands.				
		✓	Gb	iP	17 54 11		(h = 600 km).			
			i	17 54 20	" 12	✓	Up	iPKP	07 17 30 D	
		Azores Islands.					i	07 17 35		
" 9		Up	iP	20 38 09		✓	Gb	iPKP	07 17 40	
		Sk	iP	20 37 14			i	07 17 51		
" 9		Up	iP	23 07 25		Kermadec Islands.				
		Ki	iP	23 07 27		(h = 250 km).				
" 10		Gb	iP	05 07 21	" 12	✓	Up	iPKP	07 38 40	
						cont.				

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960				1960			
✓ June 12	✓ Ki	iPKP	07 39 14	June 15	Up	iP	16 09 15
cont. ✓			South Pacific Ocean.		Sk	iP	20 33 53
" 12	Up	iP	10 05 51	" 15		i	20 34 00
" 12	✓ Ki	iPKP	15 24 11	" 15	Up	iP	20 38 23
			Southern Chile.	" 15	✓ Up	iPKP	23 09 32
" 12	Up	iP	23 14 14			i	23 09 37
		i	23 14 28			i	23 09 40
		i	23 17 50		✓ Ki	iPKP	23 09 16
		i	23 18 03		✓ Sk	iPKP	23 09 25
		i	23 19 51			i	23 09 35
	Ki	iP	23 15 33		✓ Gb	iPKP	23 09 42
		i	23 23 31				Kermadec Islands.
	Sk	iP	23 15 04	" 15	✓ Up	iP	23 41 40
		i	23 15 07			iPP	23 46 02
		i	23 22 05		✓ Ki	iP	23 41 21
✓ " 13	✓ Ki	iPKP	06 06 22			i	23 41 27
✓	✓ Sk	iPKP	06 06 14				Western New Guinea.
			Off coast of southern Chile.	" 15	✓ Up	iPKP	23 51 16
" 14	Up	iP	00 36 09			i	23 51 21
" 14	Ki	iPKP	03 13 25			i	23 51 27
			Near coast of southern Chile.		✓ Ki	iPKP	23 51 00
" 14	Up	iP	04 38 04		✓ Sk	iPKP	23 51 10
			Kurile Islands.		✓ Gb	iPKP	23 51 29
" 14	Up	iP	11 17 58				South of Fiji Islands. (h = 600 km).
✓ " 14	✓ Up	iPKP	23 57 03	" 16	Ki	iP	03 37 37
			D'Entrecasteaux Islands.			i	06 50 31
" 15	Up	iP	03 05 21				06 50 40
" 15	Up	iP	13 21 29				Near coast of Samar, Philippine Islands.
" 15	✓ Up	iP	15 48 05	" 16	Up	iP	08 55 38
		i	15 48 18	" 16	Ki	e(P)	09 21 25
		i	15 48 53			i	09 21 34
		i	15 49 10		Sk	e(P)	09 22 44
		i	15 47 23			Local ?	
	Ki	iP	15 47 36	" 16	Up	iP	09 23 10
		i	15 47 58		Ki	iP	09 24 43
	Sk	iP	15 47 58	" 16	Ki	iP	10 08 29
		i	15 48 10			i	10 08 44
	Gb	i	15 48 25				Mariana Islands.
		i	15 48 32				
			Near north coast of Honshu, Japan.				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960				1960					
June 16				June 17					
✓	Up	iP	10 31 39		Ki	iP	18 10 50		
	Ki	iP	10 32 01		Up	i(P)	18 16 30		
	Sk	iP	10 32 01		Ki	iP	18 15 47		
	Indian Ocean.								
"	16	Ki	iP	11 46 30	"	17	Ki	iP	20 46 21
"	16	Ki	iP	11 53 47	"	18	Ki	iP	01 52 42
"	16	Ki	e	12 41 21	"	18	Up	iP	02 09 44
			i	12 41 44	✓		i	02 09 56	
	Sk	i	12 42 49			i	02 10 32		
		i	12 42 53		Ki	iP	02 10 51		
	Local ?				Sk	iP	02 10 23		
		i				i	02 10 36		
"	16	Up	iP	16 16 45	"	18	Up	eP	02 52 25
		Ki	iP	16 16 49			i	02 52 35	
		Sk	iP	16 17 09		Sk	iP	02 52 13	
	Tadzhikistan, USSR.								
"	17	Up	e(P)	03 34 27	"	18	Up	iP	13 15 43
✓	17	Up	iPKP	05 20 47		Gb	iP	13 15 10	
		i	05 24 04	"	18	Ki	iP	14 04 56	
	Ki	iPKP	05 20 39	"	18	Sk	iP	23 00 15	
		iSKP	05 23 10	"	18	Up	iP	23 19 50	
	Sk	iPKP	05 20 50			i	23 19 52		
	Fiji Islands. (h = 600 km).					i	23 22 30		
"	17	Ki	iP	14 03 36		Ki	i(P)	23 21 16	
"	17	Up	iP	15 23 50	"	18	Up	iP	23 45 41
"	17	Up	iP	16 35 26			i	23 45 43	
							i	23 46 57	
"	17	Up	iP	16 46 31		Ki	iP	23 45 40	
		i	16 46 38			i	23 45 53		
		i	16 46 51		Near south coast of Sumatra.				
	Ki	iP	16 45 35	"	19	Up	iP	02 08 01	
		i	16 45 44			Ki	iP	02 07 13	
		i	16 46 29	"	19	Up	iP	02 32 50	
	Sk	iP	16 46 15			i	02 34 54		
		i	16 46 49		Ki	iP	02 32 50		
	Gb	iP	16 46 56			i(P)	02 35 46		
		i	16 47 08		Andaman Islands.				
		i	16 47 16	"	19	Up	iPKP	12 40 12	
	Andreanof Islands, Aleutian Islands.			✓		Ki	iPKP	12 40 03	
"	17	Up	iP	17 03 26		Fiji Islands region. (h = 500 km).			
"	17	Up	iP	17 14 59					
		Ki	eP	17 15 06					

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960

June 19 Up iP 12 45 40
 i 12 46 54
 Ki iP 12 44 55
 Kurile Islands.

" 19 Up iP 17 29 45
 i 17 29 49
 i 17 29 54
 Ki iP 17 29 11
 i 17 29 17
 Sk iP 17 29 41
 Gb iP 17 30 02
 Bonin Islands.

" 20 Up iPKP 02 20 05
 i 02 20 08
 i 02 20 15
 i 02 21 43
 Ki iPKP 02 20 12
 i 02 20 25
 iPP 02 22 09
 Sk iPKP 02 20 06
 Gb iPKP 02 20 02
 Near coast of Chile.

" 20 Ki iP 03 35 23

" 20 Up i(Sg) 05 35 05
 i 05 35 18
 i 05 35 42
 Ki iP 05 32 28
 i 05 32 35
 iSg 05 33 22
 Sk iP 05 32 35
 iSg 05 33 22
 i 05 33 25
 i 05 33 39
 Off coast of Norway.

" 20 Ki iP 08 12 06

" 20 Up iP 10 21 40
 i 10 21 46

" 20 Up iPP 13 20 18
 i 13 20 40
 Ki iPKP 13 18 47
 i 13 18 57
 iPP 13 20 45
 Sk iPKP 13 18 40
 i 13 18 49
 iPP 13 20 15
 Chile.

1960

June 20 Ki eP 13 43 20

" 20 Ki iPKP 14 42 40
 Near coast of southern Chile.

" 20 Ki iP 16 43 46

" 20 Up iP 17 06 45
 Ki iP 17 06 00
 Sk iP 17 06 29
 i 17 06 37
 Kodiak Island, Alaska.

" 20 Ki iPKP 17 18 38
 Sk iPKP 17 18 30
 Off coast of Chile.

" 20 Ki iP 17 57 58

" 20 Up iP 23 08 21
 i 23 08 24
 Ki iP 23 07 43
 Sk iP 23 08 16
 Gb iP 23 08 45
 Honshu, Japan.

" 21 Ki iP 00 15 02

" 21 Ki iP 12 35 01

" 21 Up iP 12 57 05
 Ki iP 12 56 48
 Molucca Passage.

" 21 Ki iP 13 53 43

" 21 Up iPKP 21 52 45
 Ki iPKP 21 53 01
 Sk iPKP 21 52 51
 Gb iPKP 21 52 45
 Sandwich Islands region.

" 21 Up iP 23 32 11
 i 23 32 27

" 22 Up iP 00 06 31
 i 00 06 35
 Sk iP 00 06 25

" 22 Up iPKP 02 47 10
 i 02 47 14
 Ki iPKP 02 46 53
 cont.

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960				1960			
June 22	Sk	iPKP	02 47 03	June 23	Ki	i(P)	19 13 50
cont.	Gb	iPKP	02 47 23				
		Kermadec Islands.		" 23	Up	iP	19 34 13
" 22	Up	i(P)	05 55 28		Ki	i(P)	19 33 24
		i	05 55 35	" 23	Up	iP	22 00 49
" 22	Ki	iPKP	06 59 29		i		22 00 51
		Near coast of Chile.			Sk	iP	22 00 40
" 22	Ki	iPKP	08 31 06	" 23	Up	iP	23 41 26
		i	08 31 12		Ki	iP	23 40 32
	Sk	iPKP	08 30 58		Sk	iP	23 41 10
		Near coast of southern Chile.			Gb	i(P)	23 42 51
" 22	Up	iP	16 17 26	" 24	Up	iP	03 48 38
" 22	Up	iP	16 21 45		iSg		03 49 21
		i	16 21 57		i		03 49 23
	Ki	iP	16 22 17		Ki	iSg	03 51 57
	Sk	iP	16 22 14		Sk	iP	03 48 32
	Gb	iP	16 21 56			iSg	03 49 09
		Arabian Sea.				i	03 49 19
" 22	Sk	iP	17 56 03		Gb	i	03 49 58
	Gb	iP	17 55 18			iSg	03 50 06
" 22	Up	i(P)	18 41 51	" 24	Up	iPKP	22 54 31
		i	18 41 57		i		22 54 40
" 22	Ki	iPKP	20 32 21		i		22 54 44
	Sk	iPKP	20 32 11		Ki	iPKP	22 54 13
		Near coast of Chile.			Sk	iPKP	22 54 25
" 22	Up	iP	23 39 52		i		22 54 34
		i	23 39 55		Gb	iPKP	22 54 40
	Ki	iP	23 38 59			Kermadec Islands.	
		iPoP	23 39 44	" 25	Up	iPKP	02 22 25
	Sk	iP	23 39 30		i		02 22 33
	Gb	iP	23 40 09		i		02 22 34
		Andreanof Islands, Aleutian Islands.			Ki	iPKP	02 22 04
" 23	Up	iP	02 38 24		Sk	iPKP	02 22 18
	Ki	iP	02 38 18		i		02 22 33
	Sk	iP	02 38 39		Gb	iPKP	02 22 33
" 23	Up	i(P)	03 53 56		i		02 22 42
		i	03 54 04			Kermadec Islands.	
" 23	Up	iP	05 43 33	" 25	Up	iP	12 26 54
" 23	Up	iP	09 26 39		Sk	iP	12 27 32
					Gb	iP	12 26 42
				" 25	Sk	iP	13 18 14
				" 25	Up	iP	14 06 12
					Sk	iP	14 06 00
					Gb	iP	14 05 57
					i		14 06 38
						Colombia.	

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960

June 25 Up 1PKP 15 00 56
 i 15 01 05
 i 15 01 13
 Sk 1PKP 15 00 49
 Gb 1PKP 15 01 03
 Kermadec Islands.

" 25 Up 1PKP 15 01 36
 Sk 1PKP 15 01 29
 i 15 01 38
 Gb 1PKP 15 01 44
 Kermadec Islands.

" 25 Up 1PKP 15 18 48
 Sk 1PKP 15 18 39
 Gb 1PKP 15 18 52
 i 15 19 00
 Kermadec Islands.

4444
 " 25 Up 1P 20 04 04
 Sk 1P 20 04 13
 i 20 04 19
 Gb 1P 20 04 31

" 25 Sk 1P 21 16 43

" 25 Sk 1P 23 57 55

" 26 Up 1P 23 59 47
 i 00 00 16
 Sk 1P 23 58 55
 i 23 59 06
 Gb eP 23 59 31

" 27 Up 1P 10 23 14
 i 10 23 20

" 27 Up 1P 16 36 40

S
 " 27 Up 1PKP 17 10 17
 i 17 10 29
 Ki 1PKP 17 09 57
 i 17 10 10
 Sk 1PKP 18 10 10
 i 17 10 23
 Gb 1PKP 17 10 20
 Kermadec Islands.

" 27 Sk i(PKP) 17 18 39

" 27 Gb 1P 17 48 54
 i 17 49 10

" 27 Up 1PKP 17 53 40
 cont.

1960

June 27 1 17 53 44
 cont. K1 1PKP 17 53 23
 Sk 1PKP 17 53 34
 i 17 53 41
 Gb 1PKP 17 53 46
 Kermadec Islands.

" 28 K1 1P 08 32 49

" 29 Ki 1PKP 02 16 26
 Sk 1PKP 02 16 18
 Southern Chile.

" 29 Up 1PKP 04 49 00
 i 04 49 06
 i 04 49 19
 Ki 1PKP 04 48 42
 i 04 48 52
 Sk 1PKP 04 48 54
 Gb 1PKP 04 49 09
 i 04 49 18
 Kermadec Islands.

" 29 Up 1P 05 26 09
 i 05 26 14
 Ki 1P 05 25 36
 South of Honshu, Japan.
 (h = 500 km).

" 29 Up 1P 10 28 54
 i 10 29 04
 Ki 1P 10 29 32
 Gb 1P 10 28 42
 Atlantic Ocean.

" 29 Up 1P 17 17 57
 i 17 18 04
 Ki 1P 17 17 03
 i 17 17 11
 Sk 1P 17 17 33
 i 17 17 46
 Gb 1P 17 18 26
 Fox Islands, Aleutian
 Islands.

" 29 Up 1P 18 24 09

" 29 Up 1 23 49 33
 i(Sg) 23 50 16
 K1 eP 23 47 04
 i 23 47 42
 iSg 23 47 57
 Sk 1P 23 47 06
 i 23 47 50

cont.

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960

June 29

iSg 23 48 02

cont.

Off coast of Norway.

" 30 Up iP 15 41 35

" 30 Up iP 16 52 16

i 16 52 29

i 16 52 34

" 30 Up iP 19 19 01

i 19 19 14

i 19 19 29

" 30 Up iP 20 08 38

i 20 08 57

i 20 09 08

✓ Ki iP 20 07 42

i 20 07 58

✓ Sk iP 20 08 10

iPoP 20 09 09

✓ Gb iP 20 08 52

i 20 09 13

Kenai Peninsula, Alaska.

" 30 Ki iP 21 11 43

" 30 Up iP 21 51 26

i 21 51 40

i 21 51 44

Ingrid Pettersson

Feb. 20, 1961.

Markus Båth.

1960
July
Copied
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Uppsala

PRELIMINARY
SEISMOLOGICAL BULLETIN

U P P S A L A , K I R U N A , S K A L S T U G A N , and G Ö T E B O R G

Uppsala (Up): 59°51.5'N, 17°37.6'E; h = 14 m.
Kiruna (Ki): 67°50.4'N, 20°25.0'E; h = 390 m.
Skalstugan (Sk): 63°34.8'N, 12°16.8'E; h = 580 m.
Göteborg (Gb): 57°41.9'N, 11°58.7'E; h = 66 m.

J U L Y 1 - 31, 1960
.....

July 1	Ki	iP	00 10 23	July 2	Up	iP	12 54 15
	Sk	iP	00 10 45		i		12 54 22
	Soemba Island.				i		12 56 49
" 1	Gb	iP	07 16 27	X	Ki	iP	12 53 37
" 1	Gb	iP	07 47 56		ipP		12 55 54
" 1	Up	iP	08 09 24		Sk	iP	12 54 12
X	Ki	iP	08 08 24		i		12 56 38
	i		08 08 30		Gb	iP	12 54 38
	Sk	iP	08 09 06		Sea of Japan. (h = 550 km).		
	Gb	iP	08 09 45	" 2	Up	iP	22 04 25
	Komandorskie Islands.				Ki	iP	22 03 31
" 1	Gb	iP	09 57 04		Andreanof Islands, Aleutian Islands.		
" 1	Ki	iP	17 53 39	" 3	Up	iP	03 30 23
	Mariana Islands. (h = 60 km).			X	Ki	iP	03 29 28
" 2	Up	iP	04 40 35		Sk	iP	03 30 19
X	Ki	iP	04 39 42		Andreanof Islands, Aleutian Islands.		
	Andreanof Islands, Aleutian Islands.			" 3	Gb	iP	04 56 57
" 2	Ki	iPKP	09 17 20	" 3	Up	iP	05 27 12
	Southern Chile.				Ki	iP	05 26 17
" 2	Up	iPKP	12 14 32		Andreanof Islands, Aleutian Islands.		
	i		12 14 38	" 3	Up	iP	07 27 19
	i		12 17 57		Ki	iP	07 26 24
	Ki	iPKP	12 14 47		Andreanof Islands, Aleutian Islands.		
	i		12 17 56	" 3	Up	iP	20 31 48
	Sk	iPKP	12 14 38		i		20 31 58
	i		12 18 01		i		20 39 21
	Sandwich Islands. Th phases at 12.17 - 12.18 probably belong to another earth- quake.			X	i		20 41 05
					cont.		

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960
July 3
cont.

		✓	iP'P'	20 59 59	
			i	21 00 13	
	✓	Ki	iP	20 30 54	
			i	20 31 04	
		✓	iP'P'	21 00 16	
	✓	Sk	iP	20 31 37	
			iP'P'	21 00 13	
	✓	Gb	iP	20 32 11	
			Andreanof Islands, Aleutian Islands.		
"	3	✓	Up	iP	23 03 36
			i	23 03 46	
		✓	Ki	iP	23 02 43
		✓	Sk	iP	23 03 15
		✓	Gb	iP	23 03 51
			Andreanof Islands, Aleutian Islands.		
"	3		Up	iP	23 51 18
"	3		Up	iP	23 58 17
			Ki	iP	23 57 43
"	4		Ki	iP	03 51 30
"	4	✓	Up	iP	04 20 47
		✓	Ki	iP	04 20 12
		✓	Gb	iP	04 20 45
"	4	✓	Up	iP	04 39 22
		✓	Ki	iP	04 38 35
			i	04 38 42	
		✓	Sk	iP	04 38 53
			iP'P'	05 08 14	
		✓	Gb	iP	04 39 26
			Queen Charlotte Islands.		
"	4	✓	Up	iP	13 20 57
			i	13 21 03	
		✓	Ki	iP	13 20 07
		✓	Sk	iP	13 20 19
		✓	Gb	iP	13 21 09
			Queen Charlotte Islands.		
"	4		Up	iP	14 00 58
			Ki	iP	14 00 01
"	4		Ki	iP	14 18 47
"	4	✓	Ki	iP	21 48 33
"	4	✓	Ki	iPKP	21 58 34
			Southern Chile.		

1960

July 5	✓	Up	iP	05 18 59	
	✓	Ki	iP	05 18 05	
			i	05 18 50	
	✓	Sk	e(P)	05 19 00	
			Andreanof Islands, Aleutian Islands.		
"	5	✓	Ki	iPKP	06 04 30
			Near coast of Chile.		
"	5		Gb	i(P)	07 19 34
"	5		Ki	iP	15 59 24
"	5		Up	iP	18 12 31
"	5	✓	Ki	iP	21 27 49
		✓	Sk	iP	21 27 33
		✓	Gb	iP	21 27 29
			Western Brazil (h = 600 km).		
"	6	✓	Up	iP	05 24 11
			iP	05 24 58	
			i	05 30 24	
		✓	Ki	iP	05 24 20
			i	05 24 30	
			i	05 24 39	
			i	05 29 39	
		✓	Sk	iP	05 24 37
			i	05 26 21	
			i	05 29 46	
		✓	Gb	iP	05 24 30
			i	05 24 38	
			Hindu Kush region (h=200 km).		
"	6		Up	iP	13 27 54
			Ki	iP	13 27 41
			Sk	iP	13 28 09
"	6		Ki	iP	14 55 58
			Molucca Passage (h = 200 km).		
"	6		Up	iP	23 21 51
			Ki	iP	23 21 53
			Tadzhik, USSR.		
"	6		Ki	iP	23 23 46
			Sk	iP	23 23 49
"	6		Ki	iP	23 31 05
			Banda Sea.		
"	6		Up	iP	23 33 00
			Sk	iP	23 33 38

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960				1960			
July 7	Ki	iP	16 06 23	July 8	Up	i(P)	19 43 11
	Gb	iP	16 29 36				
" 7	Up	iP	17 14 57	" 9	Up	iP	00 35 53
	Gb	iP	17 14 57		Ki	iP	00 35 00
" 7	Ki	iPKP	17 56 50		Gb	iP	00 36 10
	Chile.				Andreanof Islands, Aleutian Islands.		
" 7	Up	iP	21 27 54	" 9	Up	iP	00 54 22
" 7	Ki	iPKP	22 00 07		Ki	iP	00 53 54
	Near coast of Chile.				Sk	iP	00 54 35
" 7	Up	iP	22 45 06		Ryukyu Islands.		
	Ki	iP	22 45 10	" 9	Ki	iP	03 41 39
	i		22 45 18	" 9	Up	iP	04 15 46
	Sk	iP	22 45 26		Ki	iP	04 16 53
	i		22 45 34		Sk	iP	04 16 25
" 7	Ki	iP	23 54 04	" 9	Up	iP	08 21 52
" 8	Up	iP	07 48 05		Ki	iP	08 21 40
	Ki	iP	07 47 53		Sk	iP	08 22 04
	Sk	iP	07 47 19	" 9	Ki	iP	09 31 21
" 8	Up	iP	10 20 14	" 9	Ki	iP	09 34 31
	i		10 20 19	" 9	Ki	iP	18 06 37
	Ki	iP	10 19 21	" 9	Up	iP	22 47 17
	Sk	iP	10 19 52		i		22 47 20
	Andreanof Islands, Aleutian Islands.				Ki	iP	22 48 35
" 8	Up	iP	13 02 58		Sk	iP	22 48 01
	Ki	iP	13 02 27		Gb	iP	22 47 09
	Sk	iP	13 02 57		Southern Yugoslavia.		
	Gb	iP	13 03 20	" 9	Ki	iP	23 33 35
	Near south coast of Kyushu, Japan.			" 10	Up	iP	00 17 57
" 8	Ki	eP	13 30 32		i		00 18 08
" 8	Ki	iP	14 58 44		i		00 18 21
	Banda Sea.				Ki	iP	00 17 58
" 8	Up	iPKP	15 42 29		i		00 18 05
	Sk	iPKP	15 42 25		Sk	iP	00 18 12
	New Hebrides Islands.				Gb	iP	00 18 12
" 8	Up	iP	15 45 34		Off west coast of Sumatra.		
" 8	Up	iP	17 00 42	" 10	Up	e(Sg)	01 02 39
	Ki	iP	16 59 55		Ki	eP	00 59 07
	Sk	iP	17 00 31		i		01 00 02
					i		01 00 12
					Sk	eP	00 59 23
					iSg		01 00 08

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960

July 10 Up iP 13 52 24
 Ki iP 13 52 17
 Near coast of Nicaragua.
 (h = 150 km).

" 10 Up iP 13 57 04
 i 13 57 05
 Ki iP 13 57 41
 iPF 13 59 25
 Sk iP 13 57 39
 Persian Gulf.

" 10 Ki iPKP2 20 42 54
 South of Australia.

" 11 Up iP 07 19 21

" 11 Up iPKP 07 53 07
 Ki iPKP 07 53 17
 i 07 55 01
 Sk iPKP2 07 53 40
 South of Australia.

" 11 Up iP 12 05 22
 i 12 05 23
 Sk iPoP 12 05 33
 Andreanof Islands,
 Aleutian Islands.

" 11 Up iPKP 12 14 32
 Sk iPKP 12 14 27
 Tonga Islands region.

" 11 Up iP 18 26 42

" 12 Up iP 12 11 21

" 12 Ki iP 14 13 08
 Sk iP 14 12 18
 Italy.

" 12 Up iP 17 11 38
 iPoP 17 12 01
 Ki iP 17 10 56
 Off coast of northern
 Honshu, Japan.

" 13 Up iP 02 41 23
 i 02 41 26
 Ki iP 02 40 40
 Sk iP 02 41 15
 Gb iP 02 41 44
 Near south coast of
 Hokkaido, Japan.

1960

July 13 Sk eP 06 42 16

" 13 Ki iPKP 08 15 02
 i 08 15 16
 Bouvet Island region.

" 13 Up iP 10 25 07
 Ki iP 10 26 17
 Sk iP 10 25 46
 i 10 25 52
 Greece.

" 13 Up iP 13 05 32
 i 13 05 44
 i 13 05 55
 Ki iP 13 06 48
 i 13 06 53
 i 13 15 44
 Sk iP 13 06 17
 i 13 06 22
 Gb iP 13 05 24
 Greece.

" 13 Sk iP 15 22 14

" 13 Up iP 16 36 57
 i 16 37 03
 Ki iP 16 36 12
 iPF 16 36 46
 Sk iP 16 36 07
 iPF 16 36 43
 Oaxaca, Mexico (h = 150 km).

" 13 Up i(P) 16 48 03

" 13 Up iP 20 39 31
 Ki iP 20 38 52
 Sk iP 20 39 26
 Off coast of Honshu, Japan.

" 13 Ki i(pP) 21 59 19
 Central Peru (h = 150 km).

" 14 Ki iP 03 47 07

" 14 Sk iP 04 21 51
 Tolmezzo region, Italy.

" 14 Sk iP 04 26 57

" 14 Up i(P) 05 09 05

" 14 Sk iP 07 19 52

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960				1960			
July 14				July 15			
	Ki	iP	08 16 37		Sk	iP	21 44 57
		i	08 16 40				
"	14	Up	1P	"	15	Sk	iP
			10 40 26				23 49 01
			10 40 44		"	16	Up
			10 40 51				iP
			10 40 09				00 27 35
			10 40 14				00 28 07
			10 40 30				00 28 06
			Molucca Passage.		"	16	Ki
							iP
							01 18 20
"	14	Up	iPKP	"	16	Sk	iP
			11 03 25				04 25 09
			11 03 15		"	16	Up
			11 03 19				iP
			11 03 38				i
			South of Fiji Islands.				17 30 01
			(h = 600 km).				17 30 05
							17 29 32
"	14	Up	i(P)				17 29 58
			11 35 39				17 30 16
							Mariana Islands region.
							(h = 300 km).
"	14	Up	iP	"	16	Up	iPg
			18 49 10				20 45 32
			18 49 57				i
			18 49 08				20 45 43
			Ethiopia.				iSg
							20 45 47
							eSg
							20 49 42
							eSg
							20 48 00
"	14	Up	iP	"	16	Up	iP
			22 18 44				iP
			22 18 47				iP
			22 18 50				i
			22 20 50				21 28 13
			22 18 53				iP
			22 19 10				i
			22 19 07				21 28 43
			Hindu Kush (h = 100 km).				i
							21 28 48
							21 29 26
							Seward Peninsula, Alaska.
"	15	Up	iP	"	16	Ki	iP
			05 13 48				22 11 26
			05 14 25				22 12 00
			05 14 38				Seward Peninsula, Alaska.
			05 14 13				
			05 13 47				
			Off northwest coast of				
			Madagascar.				
"	15	Up	i(P)	"	16	Sk	iP
			08 01 47				22 45 03
							i
							22 45 13
"	15	Up	e(P)	"	17	Up	iP
			12 48 08				02 28 06
			12 47 15				02 27 41
							02 28 12
							Samar, Philippine Islands.
"	15	Up	iP	"	17	Up	iP
			14 21 35				05 22 18
							i
							05 23 52
							iP
							05 22 27
							iP
							05 22 44
							i
							05 24 25
							iP
							05 22 41
							Hindu Kush (h = 200 km).

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960

July 17 Up iP 12 01 55
 Ki iP 12 02 04
 Near coast of Venezuela.
 (h = 100 km).

" 17 Ki iP 19 54 56
 Ascension Island region.

" 17 Ki iP 20 13 32

" 18 Up iP 01 05 50
 i 01 05 58
 i 01 06 03
 Ki iP 01 05 50
 i 01 06 08
 Sk iP 01 06 11
 Gb iP 01 06 12
 Nicobar Islands.

" 18 Up iP 01 27 11
 i 01 27 19
 Ki iP 01 27 12
 Nicobar Islands.

" 18 Up iP 01 55 49
 i 01 55 51
 i 01 55 57
 Ki iP 01 55 51
 Sk iP 01 56 12
 Gb iP 01 56 12
 Nicobar Islands.

" 18 Ki iP KP 02 01 43
 Sk iP KP 02 01 55
 New Britain region.
 (h = 200 km).

" 18 Up iP 04 49 18
 Ki iP 04 48 34
 Sk iP 04 49 16
 Lake Baikal, USSR.

" 18 Sk iP 06 33 44

" 18 Up iP 09 37 51

" 18 Up e(P) 09 53 52
 Ki iP 09 53 40
 i 09 53 54

" 18 Up iP 16 59 20
 Ki iP 16 59 29
 iP 17 01 04

cont.

1960

July 18 Sk iP 16 59 48
 cont. iP 17 01 22
 Gb iP 16 59 40
 Hindu Kush.

" 18 Up iP 19 01 59
 i 19 02 01
 i 19 02 08
 i 19 02 14
 Ki iP 19 02 34
 Sk iP 19 02 27
 Gb iP 19 02 01
 Amirante Islands.

" 19 Up iP 03 26 10

" 19 Ki iP 04 38 57

" 19 Up iP 07 50 46

" 19 Up iP 16 16 32
 Ki iP 16 16 17
 i 16 16 38
 Sk iP 16 16 12
 i 16 16 31
 Chiapas, Mexico (h=200 km).

" 19 Ki iP 18 42 22
 Mariana Islands (h=100 km).

" 19 Up iP 19 34 24

" 19 Ki iP 21 00 00

" 19 Ki i(P) 21 15 24

" 19 Ki iP 22 17 45
 Sk iP 22 18 22
 i 22 20 02
 i 22 20 08

" 19 Ki iP 22 22 50

" 20 Up iP 09 23 46
 i 09 23 50
 Gb iP 09 23 37

" 20 Up iP 09 41 32 D
 i 09 41 37
 i 09 41 48
 Ki iP 09 40 41
 i 09 40 47
 i 09 40 57

cont.

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960				1960			
July 20	Sk	iP	09 41 18	July 22	Up	iP	19 31 19
cont.		i	09 41 22			i	19 31 30
	Gb	iP	09 41 54	" 22	Ki	iP	19 55 37
		i	09 41 59	" 23	Up	eP	02 57 15
		i	09 42 10		Sk	iP	02 57 05
			Kurile Islands region.			i	02 57 13
" 20	Ki	iP	14 41 27		Gb	iP	02 57 36
" 20	Up	iP	15 28 07	" 23	Ki	iPKP	07 49 46
		i	15 29 01			iSKP	07 52 17
			Northern Afghanistan.		Sk	ePKP	07 49 47
" 20	Up	iP	17 33 21			iSKP	07 52 34
	Sk	iP	17 34 05		Gb	iPKP	07 50 04
" 20	Up	iPKP	21 18 30				Fiji Islands (h = 600 km).
	Ki	iPKP	21 18 15	" 23	Ki	iP	14 07 55
		i	21 18 22			i	14 08 03
	Sk	iPKP	21 18 26	" 23	Ki	iP	17 47 48
			New Hebrides Islands.		Sk	iP	17 48 23
			(h = 200 km).		Gb	i	17 49 51
" 20	Ki	iPP	21 59 08	" 23	Ki	eP	17 52 42
			Southern Chile.			i	17 53 29
" 20	Gb	iP	22 16 30			Local ?	
" 21	Ki	iP	05 21 50	" 24	Up	iP	02 37 55
	Sk	iP	05 22 05			i	02 38 06
" 21	Ki	iP	07 32 53		Ki	iP	02 37 03
" 21	Sk	iP	07 37 01		Gb	iP	02 38 12
" 21	Up	iP	14 08 32				Andreanof Islands, Aleutian Islands.
" 21	Ki	iP	14 43 31	" 24	Up	iP	09 59 13
" 21	Sk	iP	14 56 52			i	09 59 22
" 21	Up	iP	17 14 20		Ki	iP	09 58 17
" 21	Up	iP	21 03 45			i	09 58 26
		i	21 03 51		Sk	iP	09 58 52
	Ki	iP	21 03 09			i	09 58 58
	Sk	iP	21 03 39		Gb	iP	09 59 32
	Gb	iP	21 04 00				Near coast of Kamohatka.
			Bonin Islands.	" 25	Up	iP	03 51 27
" 22	Ki	iP	10 51 37			i	03 51 35
" 22	Up	iP	14 25 27		Ki	iP	03 50 29
					Gb	iP	03 51 45
							Near coast of Kamohatka.
				" 25	Up	iP	11 12 38
				" 25	Up	iP	11 22 17
						i	11 30 36
							cont.

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

Year	Date	Station	Type	Time	Location	Year	Date	Station	Type	Time	Location	
1960	July 25	Ki	iP	11 21 23	Kamchatka (h = 100 km).	1960	July 27	Up	iPKP	10 24 03	Near coast of southern Chile (h = 25 km).	
cont.			i	11 28 54				Ki	iPKP	10 24 08		
			i	11 31 10					i	10 26 31		
		Gb	iP	11 22 37					Gb	iPKP		10 23 56
			i	11 23 05								
			i	11 24 55								
			i	11 32 19								
"	25	Up	iP	15 40 51	Near coast of Kamchatka. (h = 152 km).	"	27	Ki	iPKP	13 46 21	New Hebrides Islands. (h = 55 km).	
			i	15 40 56								
		Ki	iP	15 39 57					Up	iP	13 59 48	
		Gb	iP	15 41 10						i	13 59 53	
"	25	Gb	iP	15 58 52	Iran.	"	27		i	13 59 58	Kermadec Islands (h = 68 km).	
"	25	Ki	iP	16 56 58					Ki	iP		13 59 44
"	25	Up	iP	21 19 02					Up	iPKP	21 20 40	
		Ki	iP	21 19 32	Off east coast of Hokkaido, Japan.	"	28	Ki	iP	01 38 03	Loyalty Islands.	
			i	21 20 55					Up	iP		15 28 27
		Gb	iP	21 19 26					Up	iP	15 34 09	
										i	15 34 19	
"	26	Up	iP	04 07 12	Turkey.	"	28	Ki	iP	17 08 01	India.	
			i	04 07 25					Up	iPKP		00 43 28
		Ki	iP	04 06 29					Ki	iPKP	00 43 16	
		Gb	iP	04 07 34								
"	26	Up	iP	12 41 23	Sandwich Islands. (h = 65 km).	"	29	Up	iP	10 52 44	Eastern Afghanistan.	
			i	12 41 31						i		14 41 44
		Ki	iP	12 42 18					Ki	iP	14 41 56	
		Gb	iP	12 41 31						iPKP	14 43 42	
"	26	Ki	i(P)	18 53 18	Near coast of Sumatra. (h = 93 km).	"	29	Gb	iP	10 53 07	cont.	
"	27	Up	iPKP	04 16 19					Up	iP		16 53 17
		Ki	iPKP	04 16 34								
"	27	Up	iP	09 09 27								
			i	09 09 45								
		Ki	iP	09 09 27								
			i	09 09 43								

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960

July 29 Ki iP 16 53 52
cont. Southern Iran.
 (h = 159 km).

" 29 Up iP 17 42 50
 iP 17 45 26
 i 17 47 01
 Ki iP 17 42 07
 iP 17 44 28
 Gb iP 17 43 11
 i 17 43 24

Honshu, Japan.
(h = 50 km).

" 30 Up iP 14 22 50
 Ki iP 14 21 54
 Gb eP 14 23 09
 Near coast of Kamohatka.

" 31 Up iP 03 14 25
 i 03 14 32
 i(IP) 03 15 21
 iP 03 25 04
 Ki iP 03 14 18
 i 03 14 42
 iP 03 25 24
 i 03 25 32
 Gb iP 03 14 39

New Britain.
(h = 25 km).

" 31 Up iP 04 47 14

" 31 Up iP 06 46 24

" 31 Up iP 15 14 00
 Ki iP 15 14 08
 i 15 14 18

Near coast of central
Chile (h = 97 km).

" 31 Up iP 22 34 33
 Ki iP 22 35 03
 i 22 36 56
 Gb iP 22 34 48
 Southern Iran.

Ingrid Pettersson
Feb 23, 1961.

Markus Båth.

1960 *copy of JPS*
Aug.

Uppsala

PRELIMINARY
SEISMOLOGICAL BULLETIN

U P P S A L A , K I R U N A , S K A L S T U G A N , and G Ö T E B O R G

Uppsala (Up): 59°51.5'N, 17°37.6'E; h = 14 m.
Kiruna (Ki): 67°50.4'N, 20°25.0'E; h = 390 m.
Skalstugan (Sk): 63°34.8'N, 12°16.8'E; h = 580 m.
Göteborg (Gb): 57°41.9'N, 11°58.7'E; h = 66 m.

AUGUST 1 - 31, 1960

1960					1960				
Aug 1	Ki	iP	00 01 33		Aug 2	✓ Up	1PKP	05 26 34	
" 1	✓ Up	iP	02 28 22	✓	X	✓ Ki	1PKP	05 26 24	
X		i	02 28 30	✓			1PKS	05 29 39	
		iPP	02 29 47			✓ Gb	1PKP	05 26 38	✓
	✓ Ki	iP	02 28 58			i	05 27 44		
		i	02 29 15			Loyalty Islands (h = 110 km).			
		iPP	02 30 35	✓	" 2	✓ Up	iP	06 25 48	
	✓ Gb	iP	02 28 35	✓	X	i	06 26 00		
	Southern Iran (h = 110 km).					✓ Ki	iP	06 24 55	
" 1	Ki	iP	04 00 08				iPoP	06 25 40	✓
" 1	Up	iP	05 14 07			✓ Gb	iP	06 26 05	✓
		i	05 14 13			Andreanof Islands, Aleutian Islands (h = 30 km).			
" 1	Ki	iP	12 50 49		" 2	✓ Up	1PKP	09 50 05	
	Near north coast of Honshu, Japan (h = 100 km).				X	✓ Ki	1PKP	09 49 51	✓
" 1	Ki	iP	14 27 53			✓ Gb	1PKP	09 50 05	✓
" 1	Up	iP	15 29 12			Kermadec Islands (h = 60 km).			
	Ki	iP	15 29 13		" 2	Up	1PKP	10 25 57	
	Near coast of Sumatra (h = 25 km).					Kermadec Islands (h = 90 km).			
" 1	Up	iP	16 06 17		" 2	Up	iP	10 57 42	
" 1	Up	iP	17 30 03		" 2	✓ Up	iP	20 56 29	
		i	17 30 34		X	i	20 56 36		
		i	17 30 39			✓ Ki	iP	20 54 59	
	Ki	eP	17 31 09			i	20 55 17		✓
" 1	Up	iP	22 08 06			✓ Gb	iP	20 56 46	✓
	Bonin Islands (h = 30 km).					North Polar region (h = 40 km).			
" 1	Ki	eP	22 08 06		" 2	Up	iP	21 02 52	
						Ki	iP	21 01 22	
						i	21 01 39		
						North Polar region.			

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960				1960			
Aug 2	Ki	iP	21 09 05	Aug 6	Ki	iPKP	15 08 56
" 3	Gb	iP	07 11 05	X		Near coast of Chile	(h = 40 km).
			West Pakistan.				
" 4	Up	iP	07 45 49	" 7	Up	iP	22 37 03
X	Ki	iP	07 44 56		Ki	eP	22 36 12
	i		07 45 05			Rat Islands, Aleutian	Islands (h = 90 km).
	i		07 45 29				
			Rat Islands, Aleutian	" 8	Ki	iP	01 28 45
			Islands. (h = 80 km).			Komandorskie Islands	(h = 40 km).
" 4	Ki	iP	08 14 22	" 8	Up	i(P)	11 32 49
" 4	Ki	iP	09 18 37	" 8	Up	iP	12 37 20
			Rat Islands, Aleutian	X	Ki	iP	12 38 02
			Islands. (h = 100 km).		Gb	iP	12 37 20
" 4	Up	iP	14 16 25			Gulf of Aden (h = 25 km).	
	Ki	iP	14 15 33	" 8	Up	iP	15 45 07
			Rat Islands, Aleutian		Ki	iP	15 45 57
			Islands (h = 60 km).			South Atlantic Ocean	(h = 60 km).
" 5	Up	iP	08 04 55	" 8	Up	iP	20 41 43
" 5	Up	iP	14 49 43		i		20 41 55
" 5	Up	iP	16 17 19	X	iPP		20 42 15
	i		16 17 33		Ki	iP	20 42 49
X	Ki	iP	16 16 23		Gb	iP	20 41 34
	i		16 16 34		i		20 41 47
	Gb	iP	16 17 40			Dodecanese Islands	(h = 90 km).
	i		16 17 52	" 9	Up	iP	06 32 05
			Off south coast of		i		06 32 13
			Kamohatka (h = 40 km).	X	Ki	iP	06 31 09
" 5	Up	iP	22 38 35		Gb	iP	06 32 28
	i		22 38 38			Off east coast of	Kamohatka (h = 10 km).
X	Ki	iP	22 37 44	" 9	Up	iP	07 08 21
			Rat Islands, Aleutian		Ki	iP	07 07 26
			Islands (h = 15 km).			Off east coast of	Kamohatka (h = 40 km).
" 5	Up	eP	23 25 09	" 9	Up	iP	07 51 12
" 6	Up	iP	03 17 10		i		07 51 15
X	Ki	iP	03 16 59		i		07 51 23
	Gb	iP	03 17 28		Ki	iP	07 50 33
			Bonin Islands region.	X	i		07 50 38
			(h = 580 km).				
" 6	Up	iP	12 27 13				

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960				1960			
Aug 9	Gb	iP	07 51 15	Aug 11	Ki	iP	03 06 33
cont.		i	07 51 20				Celebes (h = 50 km).
			Off coast of northern California (h = 25 km).	" 11	Up	iP	05 03 32
" 9	Ki	iP	14 12 28		Ki	iP	05 03 14
			Sakhalin Island (h = 40 km).			i	05 03 37
" 9	Up	iPKP	17 05 51		Gb	iP	05 03 46
		i	17 05 53				Mindanao, Philippine Islands (h = 80 km).
		i	17 06 01	" 11	Ki	i(P)	16 44 48
	Ki	iPKP	17 05 40	" 12	Up	iP	13 24 02
		iPKS	17 09 16			iPP	13 26 44
	Gb	iPKP	17 05 58		Ki	iP	13 23 23
		i	17 06 15			i	13 23 35
		i	17 11 20		Gb	iP	13 24 24
			Tonga Islands region (h = 190 km).			i	13 24 35
" 9	Up	i(P)	17 43 09				Near east coast of Honshu, Japan (h = 100 km).
" 9	Ki	iP	18 30 13	" 12	Gb	iP	14 00 06
" 9	Ki	iP	22 07 49	" 12	Up	iP	15 06 35
		i	22 07 53	" 13	Up	iP	05 02 43
" 9	Ki	iPKP	23 55 35			i	05 03 07
			Santa Cruz Islands (h = 80 km).	" 13	Up	iP	07 22 15
" 10	Up	iP	01 50 38			i	07 22 28
	Ki	iP	01 49 52			iPP	07 24 45
" 10	Ki	iP	06 17 16		Ki	iP	07 21 33
" 10	Gb	iP	12 00 04			i	07 21 43
		i	12 00 07		Sk	iP	07 22 08
" 10	Ki	iP	12 51 30			i	07 22 22
			Near coast of Costa Rica (h = 25 km).			iPP	07 24 36
" 10	Up	iP	16 25 06		Gb	iP	07 22 38
" 11	Up	iP	02 40 24			i	07 22 51
	Ki	iP	02 39 35			iPP	07 25 18
" 11	Up	iP	02 47 46				Near east coast of Honshu, Japan (h = 60 km).
		i	02 48 19	" 13	Up	iP	13 32 14
		i	02 48 25	" 13	Up	iPKP	14 33 52
	Ki	iP	02 46 53			i	14 34 02
		i	02 47 30			iPP	14 35 40
			Andreanof Islands, Aleutian Islands (h = 100 km).			iPKKP	14 43 34
					Ki	iPKP	14 33 59
						iPP	14 36 06
					Sk	iPKP	14 34 00
						i	14 34 01
						iPKKP	14 43 37

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960				1960			
Aug 13	Gb	iPKP	14 33 47	Aug 17	Gb	iP	22 53 43
cont.		i	14 33 57	" 18	Gb	iP	12 00 58
		i(PP)	14 35 16	" 18	Up	i(P)	15 03 57
		iPKiP	14 43 50	" 18	Up	i(P)	15 10 05
			Near coast of southern Chile (h = 60 km).	" 18	Up	iP	20 58 02
" 14	Up	iP	04 11 58		i	20 58 06	
		i	04 12 03		i	20 58 21	
	Ki	iP	04 11 02		Ki	iP	20 57 18
	Sk	iP	04 11 38		Sk	iP	20 57 52
			Ryukyu Islands (h = 50 km).		Gb	iP	20 58 24
" 14	Ki	iP	07 38 55				Kurile Islands (h = 30 km).
" 14	Up	iP	12 57 34	" 18	Up	iP	21 50 27
	Ki	iP	12 58 44		Ki	iP	21 49 54
	Sk	iP	12 58 15		Sk	iP	21 50 28
		i	12 59 33	" 19	Up	iP	03 18 51
	Gb	iP	12 57 25		Ki	iP	03 18 43
			Greece.		Sk	iP	03 19 06
" 14	Ki	iP	21 33 44				Northern Burma (h = 30 km).
			Fox Islands, Aleutian Islands (h = 20 km).	" 19	Up	iP	12 53 19
" 14	Up	iP	22 44 48		Ki	iP	12 52 47
	Ki	iP	22 44 59		Sk	iP	12 53 16
		i	22 45 23			iPP	12 56 20
	Sk	iP	22 45 15				Bonin Islands region (h = 280 km).
	Gb	iP	22 45 05	" 19	Up	iP	17 14 05
			Hindu Kush (h = 70 km).		i	17 14 10	
" 15	Ki	iP	05 44 42		Ki	iP	17 13 09
			Komandorskie Islands (h = 25 km).		Sk	iP	17 13 48
" 15	Ki	iP	14 46 34				Near east coast of Kamchatka (h = 25 km).
			Indian Ocean (h = 25 km).	" 19	Up	iP	20 25 41
" 15	Up	iP	19 26 26	" 20	Ki	iP	00 31 55
	Ki	iP	19 26 12		Sk	iP	00 31 50
	Sk	iP	19 26 07				Guatemala (h = 160 km).
" 15	Sk	iP	21 15 48	" 20	Up	iP	14 55 31
" 15	Ki	iP	22 33 45		Ki	iP	14 54 37
" 16	Up	iP	05 52 22	" 20	Ki	iPKP	20 27 16
" 16	Ki	iP	10 43 02				Tristan da Cunha region (h = 40 km).
			Chagos Archipelago region (h = 60 km).	" 20	Up	iP	20 43 23

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960				1960			
Aug 20	Ki	1P	22 35 54	Aug 22	Ki	1P	21 06 39
		i	22 36 11	cont.		i	21 07 00
	Sk	1P	22 36 14		Sk	1P	21 06 53
		1PP	22 40 15				
	Northern Celebes (h = 60 km).			" 23	Ki	1(P)	00 25 02
						i	00 25 19
" 21	Ki	1PKP	00 36 23	" 23	Up	1P	09 05 56
	Sk	1PKP	00 36 43			i	09 06 01
		1PP	00 37 13		Ki	1P	09 06 23
	New Guinea (h = 40 km).					i	09 06 28
" 21	Ki	1PP	01 18 10		Sk	1P	09 06 35
	Sk	1PP	01 18 47		Southeastern Iran (h = 120 km).		
	New Britain (h = 180 km).			" 23	Up	1P	10 26 11
" 21	Up	1P	01 38 55	" 23	Up	1P	14 19 16
		i	01 38 56		Ki	1P	14 19 55
	Ki	1P	03 39 00		Sk	1P	14 19 22
	Sk	1P	03 39 13		Atlantic Ocean (h = 25 km).		
	Nepal-India border (h = 80 km).			" 23	Up	1P	15 13 42
" 21	Up	1P	12 44 24	" 24	Up	1P	01 54 33
" 21	Up	1P	13 02 35			i	01 54 35
		i	13 02 38		Ki	1P	01 53 27
	Ki	1P	13 02 19			i	01 53 39
		1(pP)	13 03 07		Sk	1P	01 54 16
	Sk	1P	13 02 40		Gb	1P	01 54 53
	Gb	1P	13 02 51		Near east coast of Kamchatka (h = 25 km).		
	Near south coast of Mindanao, Philippine Islands (h = 210 km).			" 24	Sk	1PKP	06 08 36
" 21	Ki	1P	17 18 01		Tonga Islands (h = 40 km).		
	Off coast of Mindanao, Philippine Islands (h = 200 km).			" 24	Up	1P	07 27 51
" 21	Up	1P	22 33 05		Ki	o(P)	07 27 18
	Ki	1P	22 32 37		Sk	1P	07 28 33
" 22	Up	oP	03 38 33	" 24	Up	1P	12 04 03
	Ki	1P	03 39 46			i	02 04 14
" 22	Up	1P	13 47 48			i	12 04 27
	Ki	1(P)	13 48 41	" 24	Ki	1P	12 08 27
" 22	Sk	1P	18 26 32	" 24	Up	1P	15 43 55
" 22	Up	1P	21 06 58			i	15 44 04
		i	21 07 59	" 24	Up	1P	16 01 45
						i	16 02 06
				" 24	Up	1P	16 28 52

Up = Uppsala, Ki = Kiruna, Sk = Skälstugan, Gb = Göteborg

1960

Aug 24	Up	iP	17 46 18
		i	17 46 31
		i	17 46 40
" 24	Up	iP	19 38 08
		i	19 38 24
	Ki	iP	19 38 01
		i	19 38 25
	Sk	iP	19 38 23
		i	19 38 42
	Gb	iP	19 38 27
Burma-India border (h = 150 km).			
" 25	Ki	iP	04 47 39
" 25	Ki	i(P)	08 10 07
" 25	Up	iP	17 52 56
		i	17 53 09
	Ki	iP	17 52 02
		i	17 52 11
	Sk	iP	17 52 33
	Gb	iP	17 53 10
Fox Islands, Aleutian Islands (h = 40 km).			
" 26	Up	iP	07 18 00
		i	07 18 06
	Ki	iP	07 18 19
		i	07 18 24
	Sk	iP	07 18 29
	Gb	iP	07 18 18
West Pakistan (h = 70 km).			
" 26	Up	iP	09 31 52
	Ki	iP	09 31 14
	Sk	iP	09 31 46
	Gb	iP	09 32 12
" 26	Sk	iP	09 53 50
" 26	Gb	iP	11 28 37
" 26	Up	iP	15 16 27
" 26	Gb	iP	13 10 32
" 26	Ki	iP	17 10 23
" 26	Up	iP	18 37 03
	Sk	iP	18 36 59

1960

Aug 26	Up	iPKP	18 46 20
	Ki	iPKP	18 46 07
		i	18 46 16
	Sk	iPKP	18 46 17
		i	18 46 27
	Gb	iPKP	18 46 28
New Hebrides Islands (h = 60 km).			
" 26	Up	i(P)	19 05 07
" 27	Up	iP	10 22 49
	Ki	iP	10 23 55
	Sk	iP	10 23 27
		i	10 23 40
	Gb	iP	10 22 42
Crete (h = 40 km).			
" 27	Up	iP	10 25 21
		i	10 25 29
	Ki	iP	10 26 28
	Sk	iP	10 26 00
Crete.			
" 27	Ki	iP	11 54 43
" 27	Up	iP	12 40 52
		i	12 40 58
	Ki	iP	12 40 53
	Sk	iP	12 41 15
	Gb	iP	12 41 17
" 27	Up	iPKP	13 09 59
	Ki	iPKP	13 09 49
	Gb	iPKP	13 10 09
Tonga Islands region (h = 160 km).			
" 27	Up	iP	16 07 51
	Ki	iP	16 07 59
		i	16 08 07
	Sk	iP	16 08 10
		i	16 08 22
India (h = 110 km).			
" 27	Up	iP	18 26 35
		i	18 26 54
		i	18 27 06
	Ki	iP	18 25 45
	Sk	iP	18 26 20
		i	18 26 58
	Gb	iP	18 26 55
		i	18 27 20
Kurile Islands (h = 220 km).			

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960

Aug 27 Ki iP 23 30 49

" 27 Sk iP 23 33 44

" 29 Up iP 16 30 48

Ki iP 16 30 57

" 29 ✓ Up iP 18 05 57

i 18 06 01

✓ Ki iP 18 07 10

i 18 07 18

✓ Sk iP 18 06 41

i 18 06 55

Crete (h = 15 km).

" 30 Ki iP 20 32 33

" 30 Up iP 22 39 39

i 22 40 00

Ki oP 22 40 18

" 31 Up iP 15 15 28

" 31 Up iP 17 34 27

i 17 34 33

Ki iP 17 34 10

Sk iP 17 34 32

Near coast of Mindanao,

Philippine Islands

(h = 20 km).

" 31 Ki 1(P) 21 30 07

i 21 30 08

" 31 ✓ Up iP 22 17 05

i 22 17 11

✓ Ki iP 22 18 00

✓ Sk iP 22 17 49

✓ Gb iP 22 17 08

Turkey (h = 40 km).

Ingrid Pettersson

April 17, 1961.

Markus Båth.

1960
Sept.

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AJS

Uppsala

PRELIMINARY
SEISMOLOGICAL BULLETIN

U P P S A L A , K I R U N A , S K A L S T U G A N , and G Ö T E B O R G

Uppsala (Up): 59°51.5'N, 17°37.6'E; h = 14 m.
Kiruna (K1): 67°50.4'N, 20°25.0'E; h = 390 m.
Skalstugan (Sk): 63°34.8'N, 12°16.8'E; h = 580 m.
Göteborg (Gb): 57°41.9'N, 11°58.7'E; h = 66 m.

S E P T E M B E R 1 - 30, 1960
.....

1960				1960				
Sep 1	Up	iP	03 06 53	Sep 1	Up	iP	15 47 50	
" 1	K1	iP	05 26 19	X	i		15 48 54	
	Possibly explosion.			X	K1	iP	15 46 55	
" 1	K1	iP	06 12 34	X	i		15 47 10	
	Sk	iP	06 12 20	X	Sk	iP	15 47 23	
	Panama-Colombia border (h = 56 km).			X	Gb	iP	15 48 01	
" 1	Gb	iP	07 03 42		Kodiak Island, Alaska.			
	Seismic ?			" 1	Up	iP	15 51 14	
" 1	Up	iPKP	07 54 14		K1	iP	15 50 19	
X		ipPKP	07 55 51		Sk	iP	15 50 46	
X	Sk	iPKP	07 54 13		Gb	iP	15 51 27	
X	Gb	iPKP	07 54 23		Probably Kodiak Island aftershock.			
		ipPKP	07 55 57		" 1	Up	iP	16 39 01
	Tonga Islands region. h = 400 km (Up, Gb).				K1	iP	16 38 07	
" 1	Gb	i(P)	08 09 25		Sk	iP	16 38 35	
" 1	Up	i	09 50 58		Probably Kodiak Island aftershock.			
X		iSKP	09 51 07	X	K1	iPKP	19 00 16	
X	K1	iPKP	09 47 17	X	Fiji Islands.			
X	Gb	iSKP	09 51 11	" 1	Up	eP	20 13 08	
	New Hebrides Islands (h = 63 km).				Seismic ?			
" 1	Up	i	10 57 36	X	K1	iPKP	20 21 02	
X		iSKP	10 57 44	X	Fiji Islands.			
X	K1	ePKP	10 54 06	" 2	Up	iPKP	11 11 15	
	New Hebrides Islands (h = 27 km).			X		iSKP	11 14 28	
" 1	Up	iPKP	12 17 31	X	K1	iPKP	11 11 01	
	Kermadec Islands region.			X	Sk	iPKP	11 11 12	
" 1	Gb	iP	13 18 35		New Hebrides Islands.			
				" 2	Up	iP	13 40 53	
				" 2	Up	iP	13 56 21	
				X	i		13 56 58	
				X	K1	iP	13 56 08	

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960					
Sep	2	i		13	56 12
cont.		Sk	iP	13	56 31
		Gb	iP	13	56 43
		Tibet.			
"	2	Up	iP	16	41 08
		Ki	e	16	42 01
"	2	Up	iP	18	52 34
		Ki	iP	18	52 09
		Sk	iP	18	52 36
"	2	Up	eP	20	27 08
		Seismic ?			
"	2	Ki	iP	21	09 08
			i	21	09 11
"	2	Up	iP	22	01 41
"	2	Up	iP	22	13 47
			i	22	14 01
			iP'iP'	22	42 03
		Ki	iP	22	12 53
			i	22	13 08
			i	22	13 23
			eP'iP'	22	42 15
		Sk	iP	22	13 21
			iP'iP'	22	42 22
		Gb	iP	22	14 02
			i	22	14 32
		Fox Islands, Aleutian Islands.			
"	3	Up	iP	00	05 51
			i	00	05 55
		Ki	iP	00	06 36
			i	00	07 10
		Sk	iP	00	06 24
		Gb	iP	00	05 55
"	3	Up	iP	00	30 21
		Ki	iP	00	29 37
		Sk	iP	00	30 13
		Near north coast of Hokkaido, Japan.			
"	3	Ki	iP	00	50 58
"	3	Up	iPKP	12	59 30
		Ki	iP	12	55 23
			iPKP	12	59 19
			iPP	13	00 03

1960					
Sep	3	Sk	eP	12	55 49
cont.			iPKP	12	59 30
			i	13	00 10
		Gb	iPKP	12	59 38
			i	13	02 35
		Solomon Islands.			
"	3	Up	iP	13	33 56
		Ki	iP	13	33 13
		Sk	iP	13	33 47
		Near north coast of Honshu, Japan.			
"	3	Up	iPKP	16	06 59
		Ki	iPKP	16	06 39
		Sk	iPKP	16	06 54
			i	16	07 08
		Kermadec Islands region.			
"	3	Up	iP	17	10 08
"	3	Ki	iPn	17	54 35
			i(Sg)	17	55 34
		Sk	iPn	17	54 40
			i(Sg)	17	55 27
		Local.			
"	3	Up	iP	19	49 30
			i	19	49 38
		Ki	iP	19	49 30
		Sk	iP	19	49 49
		Gb	iP	19	49 50
		Northern India.			
"	3	Up	iP	23	57 28
			i	23	57 58
		Ki	iP	23	56 41
			i	23	57 20
		Sk	iP	23	57 16
			i	23	57 24
		Gb	iP	23	57 49
		Kurile Islands.			
"	4	Up	iP	05	31 52
		Ki	iP	05	30 58
		Sk	iP	05	31 25
			i	05	31 50
		Gb	eP	05	32 03
"	5	Up	iP	04	43 51
		Ki	iP	04	44 00
		Sk	iP	04	44 17

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960				1960					
Sep	5	Sk	iP	21 38 09	Sep	8	Up	iP	10 32 26
			i	21 38 21				i	10 32 36
				(Greece).					
"	5	Up	iP	22 02 53	"	8	Ki	iP	10 55 36
							Sk	e(P)	10 54 54
"	5	Sk	iP	22 15 34	"	8	Up	iP	11 20 55
"	6	Sk	iP	01 17 14			Ki	iP	11 20 38
"	6	Up	iPKP	10 18 24				i	11 20 44
			i	10 18 28				i	11 21 04
		Ki	e(PKP)	10 17 45				e(SKS)	11 31 07
			iPKP	10 18 01			Sk	iP	11 20 56
		Sk	iPKP	10 18 12					Near east coast of
				Kermadec Islands region.					Mindanao, Philippine
									Islands.
"	6	Up	iP	10 33 21	"	8	Ki	iP	11 36 46
"	6	Ki	iPKP	11 34 58	"	8	Up	iP	14 42 31
		Sk	iPKP	11 35 08				i	14 42 42
				North of North Island,			Ki	iP	14 41 38
				New Zealand.			Sk	iP	14 42 15
								i	14 42 24
"	6	Up	iPKP	12 53 25					Kamohatka.
		Sk	ePKP	12 53 56	"	8	Ki	iP	17 15 04
				Near north coast of					Near south coast of
				New Guinea.					Mindanao, Philippine
"	6	Up	iPKP	14 22 17					Islands.
		Ki	iPKP	14 22 07	"	8	Ki	iP	23 18 41
		Sk	iPKP	14 22 14	"	8	Up	iP	23 23 37
				Loyalty Islands.					(Kurile Islands).
"	6	Sk	iP	14 34 31	"	9	Sk	iP	05 07 39
"	6	Up	iP	15 35 36	"	9	Up	iP	08 57 24
			i	15 35 57	"	9	Ki	iP	08 59 50
		Ki	iP	15 34 55					Local, possibly explosion.
		Sk	iP	15 35 30	"	9	Up	iP	10 12 50
			i	15 36 10				isP	10 14 28
				Near south coast of			Ki	iP	10 12 58
				Hokkaido, Japan.				i	10 13 38
"	6	Ki	iP	17 46 23			Sk	iP	10 13 15
"	7	Ki	iP	04 03 22					Hindu Kush.
		Sk	iP	04 03 41	"	9	Up	iP	16 22 38
"	7	Up	iP	11 55 55				i(S)	16 25 42
		Ki	iP	11 55 09				i	16 25 56
		Sk	iP	11 55 47			Ki	iP	16 21 22
				Kurile Islands.					

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960				1960			
Sep 9		i	16 21 30	Sep 10	Sk	iP	12 48 14
cont		i(S)	16 23 03	" 10	Up	iP	15 57 18
		eT	16 27 57			i	15 57 26
	Sk	iP	16 21 40		Ki	iP	15 57 20
		iS	16 23 23		Sk	iP	15 57 35
	Jan Mayen Island region.			Nicobar Islands.			
" 9	Ki	i(P)	17 42 54	" 11	Up	iPKP	11 11 39
" 9	Up	iP	19 23 10		Ki	iPKP	11 11 23
	Ki	e(P)	19 22 25		Sk	iPKP	11 11 33
				Kermadec Islands region.			
" 9	Up	iP	19 40 11	" 11	Up	iP	12 16 28
		e	19 43 19			i	12 16 34
		i	19 43 30		Ki	eP	12 17 08
	Ki	iP	19 38 54	" 12	Up	iP	02 54 28
		i	19 39 03			ipP	02 55 08
		i(S)	19 40 25		Ki	iP	02 53 33
	Sk	iP	19 39 12			ipP	02 54 12
		iS	19 40 57		Sk	iP	02 54 01
	Jan Mayen Island region.			Southern Alaska (h = 175 km).			
" 9	Up	iP	20 07 54	" 12	Ki	i(P)	07 42 22
		i	20 08 01	" 12	Ki	iP	09 29 18
		i	20 11 05	" 12	Ki	iPg	11 01 07
	Ki	iP	20 06 38			iSg	11 01 36
		i	20 06 47	Explosion northwest of Tromsø, Norway.			
		i(S)	20 08 08	" 12	Up	iP	12 28 55
		eT	20 12 42			i	12 29 11
	Sk	iP	20 06 56		Ki	iP	12 28 27
		iS	20 08 39		Sk	iP	12 28 56
	Jan Mayen Island region.					i	12 29 04
" 10	Up	iP	00 24 43	Ryukyu Islands.			
		i	00 24 46	" 12	Ki	iP	14 58 32
	Ki	iP	00 25 50	Near coast of Sumatra.			
	Sk	iP	00 25 23	" 12	Ki	iPg	17 01 15
		i	00 25 33			iSg	17 01 45
				Explosion northwest of Tromsø, Norway.			
" 10	Ki	iP	00 39 54	" 13	Up	iP	03 20 42
	Sk	iP	00 40 14			i	03 21 01
		i(S)	00 41 58			i	03 23 56
	Jan Mayen Island region.				Ki	iP	03 20 11
" 10	Ki	iP	10 04 07			i	03 20 20
" 10	Up	iP	10 57 08		Sk	iP	03 20 39
		i	10 57 16			i	03 20 46
		iPT	11 00 58				
	Ki	iP	10 56 53				
		i	10 56 58				
		i	11 06 24				
	Sk	iP	10 57 14				
		i	10 57 19				
	Celebes Sea.						

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg

1960
 Sep 13 ✓ 1 03 23 51
 cont. ✓ Bonin Islands region.
 " 13 Ki 1P 16 20 35
 i 16 20 41
 Sk eP 16 20 46
 " 14 ✓ Up 1P 00 46 48
 i 00 46 56
 ✓ Ki 1P 00 46 28
 i 00 46 44
 i 00 47 12
 ✓ Sk 1P 00 46 52
 i 00 47 10
 Luzon, Philippine Islands.
 " 14 ✓ Up 1P 02 04 51
 ✓ Ki 1P 02 04 50
 ✓ Sk eP 02 04 34
 Dominican Republic.
 " 14 ✓ Up 1P 04 00 59
 i 04 01 09
 ✓ Ki 1P 04 00 26
 ✓ Sk 1P 04 00 55
 i 04 01 16
 i 04 03 57
 " 14 Ki 1P 13 06 09
 " 14 ✓ Up 1PKP 23 37 59
 ✓ Ki ePKP 23 37 53
 Tonga Islands.
 " 15 Ki 1PKP 03 50 12
 New Hebrides Islands.
 " 15 Up 1P 05 11 03
 Ki 1P 05 10 50
 i 05 12 41
 Sk 1P 05 11 25
 Sinkiang, China.
 " 15 Sk 1P 07 02 20
 " 15 Ki 1(P) 12 08 00
 1(P) 12 26 18
 " 15 Ki 1(Pg) 12 58 33
 1(Sg) 12 59 28
 Local.
 " 15 ✓ Up 1P 18 09 52
 i 18 11 09
 1S 18 20 03

1960
 Sep 15 ✓ Ki 1P 18 09 24
 cont. ✓ 1S 18 19 07
 ✓ Sk 1P 18 09 50
 ✓ Gb 1P 18 10 09
 Volcano Islands region.
 " 16 Ki 1P 01 34 30
 Gb 1P 01 33 19
 " 16 Up 1P 01 46 18
 Ki 1P 01 46 27
 Sk 1P 01 46 45
 i 01 48 21
 Gb eP 01 46 44
 Tadzhik, U.S.S.R.
 " 16 Up 1P 02 44 46
 Ki 1P 02 43 49
 Sk eP 02 44 16
 " 16 Up 1(P) 11 54 08
 " 16 Ki 1(P) 17 17 05
 " 16 Up 1P 20 13 33
 Ki 1P 20 13 13
 " 17 ✓ Up 1 08 04 00
 i 08 04 07
 ✓ Ki 1P 08 02 44
 ✓ Sk 1P 08 03 21
 ✓ Gb 1P 08 03 56
 Kurile Islands.
 " 17 ✓ Up 1P 08 16 15
 ✓ Ki 1P 08 15 25
 ✓ Sk 1P 08 16 01
 ✓ Gb 1P 08 16 36
 Kurile Islands.
 " 17 ✓ Up 1PKP 20 15 32
 ✓ Ki ePKP 20 15 24
 ✓ Sk 1PKP 20 15 23
 ✓ Gb 1PKP 20 15 41
 Tonga Islands.
 " 18 Up 1P 03 45 33
 " 18 Ki 1(Pg) 06 02 16
 o(Sg) 06 02 34
 Local.
 " 18 ✓ Up 1P 09 54 38
 i 09 55 06
 eP 09 58 40

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

Year	Date	Station	Type	Time	Location
1960	Sep 18 cont.	K1	1P	09 54 21	Banda Sea.
			iP	09 58 41	
		Sk	1P	09 54 41	
			iP	09 59 10	
	" 18	Up	1P	17 12 51	
		Ki	1P	17 12 32	
		Sk	1(P)	17 12 07	
	" 18	Up	1P	19 37 30	
			ipP	19 37 43	
		Ki	1P	19 36 37	
ipP			19 36 49		
Sk		eP	19 37 39		
Gb		1P	19 37 44		
Fox Islands, Aleutian Islands (h = 48 km).					
" 19	Up	1P	03 51 56		
		i	03 51 59		
	K1	1P	03 51 36		
		i	03 51 41		
	Sk	1P	03 52 03		
Luzon Island, Philippine Islands.					
" 19	Up	1P	04 11 15		
	Ki	eP	04 10 55		
	Sk	eP	04 11 21		
Near west coast of Luzon, Philippine Islands.					
" 19	K1	eP	19 11 05		
	Sk	1P	19 10 44		
" 19	Up	1P	19 14 07		
		i	19 14 17		
	K1	1P	19 14 06		
		i	19 14 10		
	Sk	1P	19 13 52		
		i	19 13 54		
	i	19 17 12			
	Gb	1P	19 13 54		
i		19 13 58			
Colombia-Panama border.					
" 20	Up	1PKP	01 01 21		
		i	01 01 27		
	Ki	ePKP	01 01 14		
		1PKP	01 01 13		
	i	01 01 22			
	Gb	1PKP	01 01 27		
	Kermadec Islands.				
1960	Sep 20	Up	1PKP	03 24 53	Off north coast of North Island, New Zealand.
			K1	1PKP	
		Sk	1PKP	03 24 35	
			i	03 24 45	
	Gb	1PKP	03 25 08		
	" 20	Up	1PKP	03 55 17	
		K1	ePKP	03 54 56	
		Sk	ePKP	03 55 07	
		Gb	ePKP	03 55 24	
	Kermadec Islands.				
" 20	Up	1P	04 13 38		
		K1	1P	04 13 07	
	i	04 13 13			
	Sk	eP	04 13 46		
Gb		1P	04 14 00		
U.S.S.R. (49.9°N, 88.4°E).					
" 20	Up	1P	09 54 31		
	K1	1P	09 53 37		
	Sk	1P	09 54 14		
" 20	K1	1P	10 38 17		
	Sk	1P	10 38 54		
Off southeast coast of Kamohatka.					
" 21	K1	1P	00 22 37		
" 21	Up	1P	02 20 40		
	K1	1P	02 20 08		
	Sk	1P	02 20 37		
" 21	Sk	1P	03 57 12		
	Off coast of El Salvador.				
" 21	Up	1PKP	07 44 46		
Kermadec Islands.					
" 21	K1	1P	10 37 03		
" 21	Up	1P	10 49 22		
	K1	1P	10 48 29		
	Sk	1P	10 48 55		
	Gb	1P	10 49 36		
	Fox Islands, Aleutian Islands.				
" 21	Up	1P	16 19 39		
		i	16 19 49		
	ipP	16 20 33			

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

Year	Date	Station	Type	Time	Location
1960	Sep 21	Ki	1P	16 19 13	East China Sea (h = 230 km).
cont.		ipP		16 20 06	
		Sk	1P	16 19 41	
		ipP		16 20 35	
		Gb	1P	16 19 59	
			ipP	16 19 53	
"	21	Ki	1P	17 46 04	
"	21	Up	1P	23 12 01	Iran.
		Ki	1P	23 12 37	
		Sk	1P	23 12 34	
		Gb	1P	23 12 10	
"	22	Up	1P	05 48 47	Congo.
		i		05 49 16	
		Ki	1P	05 49 35	
		Sk	1P	05 49 13	
		Gb	1P	05 48 37	
"	22	Sk	1P	06 28 19	
"	22	Up	1P	09 16 18	Congo.
		i		09 17 14	
		Ki	1P	09 16 57	
		i		09 17 01	
		Sk	1P	09 16 35	
		i		09 16 42	
		i		09 18 55	
		Gb	1P	09 16 01	
		i		09 16 07	
"	22	Up	1P	09 25 29	Congo.
		Ki	1P	09 26 17	
		Sk	1P	09 25 51	
		i		09 25 56	
		Gb	1P	09 25 21	
"	22	Up	1Pg	10 00 20	Explosion of 47 ton near Norrköping, Sweden.
		1Sg		10 00 38	
		i		10 00 42	
				D = 160 km = 1.4°	
		Sk	eSg	10 02 40	
"	22	Ki	1(P)	12 17 54	
"	22	Ki	1P	15 24 25	
1960	Sep 22	Sk	1P	15 24 11	Near north coast of Colombia.
cont.					
"	22	Up	1P	22 58 05	Atlantic Ocean.
		i		22 58 19	
		Ki	1P	22 57 13	
		i		22 57 19	
		Sk	1P	22 57 43	
		i		22 57 51	
		Gb	1P	22 58 20	
		i		22 58 32	
"	23	Ki	1P	00 31 25	Atlantic Ocean.
		Sk	1P	00 31 00	
"	23	Up	1P	05 30 32	India.
		i		05 30 37	
		Ki	eP	05 30 24	
		Sk	1P	05 30 45	
"	23	Gb	1P	20 22 54	
"	23	Ki	aPKP	23 21 39	Tonga Islands.
		Gb	1PKP	23 21 58	
"	24	Ki	1PKP1	11 26 21	North Island, New Zealand region.
			1PKP2	11 26 31	
"	24	Up	eP	19 19 33	
"	24	Ki	1(P)	23 33 34	Seismic ?
"	25	Up	1P	03 07 23	
"	25	Up	1P	07 52 30	Ryukyu Islands.
"	25	Up	1P	08 43 58	Southern Iran.
		Ki	1P	08 44 35	
"	25	Up	1P	17 43 10	Mariana Islands.
		Ki	1P	17 42 42	
"	26	Up	1P	01 20 11	
		i		01 20 26	
		Ki	eP	01 20 46	

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg

1960

Sep 26 Up 1P 09 00 09
 i 09 00 16
 Ki 1P 08 59 16
 Off southeast coast of
 Kamohatka.

" 26 Up 1P 15 24 32
 Ki 1P 15 23 35
 Gb oP 15 24 39
 Fox Islands, Aleutian
 Islands.

" 26 Up 1P 17 25 09
 i 17 25 17
 Ki 1P 17 24 38

" 27 Up 1P 06 02 17
 Ki 1P 06 01 24
 Sk 1P 06 01 57
 Gb 1P 06 02 35
 Rat Islands, Aleutian
 Islands.

" 27 Up 1P 18 22 31
 Gb 1(P) 18 22 46

" 27 Up 1P 18 49 05
 Ki 1P 18 48 37
 Mariana Islands.

" 28 Up 1P 04 00 53
 Ki 1P 04 00 04

" 28 Up 1P 05 39 18
 i 05 39 34
 Ki 1P 05 39 05
 i 05 39 09
 Sk 1P 05 39 32
 i 05 39 36
 Sikang-Tsinghai border,
 China.

" 28 Ki i 09 25 48
 Seismic ?

" 28 Ki 1P 20 51 22

" 28 Up 1P 22 28 07
 Sk 1P 22 28 44

" 28 Ki 1P 22 58 24
 i 22 58 33
 Sk 1P 22 58 51

1960

Sep 29 Ki 1P 00 47 49

" 29 Up 1P 11 31 07
 i 11 31 32

oSKPTK 11 58 57
 Ki 1P 11 30 33

i(PKPT) 11 48 50
 iSKPTK 11 59 39

Sk 1P 11 31 04
 i 11 31 06

1P 11 34 42
 1P 11 48 39

Gb 1P 11 31 23
 i 11 33 50
 Mariana Islands.

" 29 Up 1P 19 06 59
 Ki oP 19 06 51
 Sk oP 19 06 41
 Guatemala.

" 29 Up 1P 19 46 03

" 30 Up 1P 02 32 30
 Ryukyu Islands.

" 30 Up 1P 06 46 12
 Ki oP 06 45 35
 Sk oP 06 45 35
 i 06 45 42
 Vancouver Island region.

" 30 Up 1P 20 31 26

Eysteinn Tryggvason
 May 9, 1961.

Markus Båth

1960
Oct.

*copied
9/5*

Uppsala

PRELIMINARY
SEISMOLOGICAL BULLETIN

U P P S A L A , K I R U N A , S K A L S T U G A N , G Ö T E B O R G , and
U M E Å

Uppsala	(Up):	59° 51.5' N,	17° 37.6' E;	h = 14 m
Kiruna	(K1):	67° 50.4' N,	20° 25.0' E;	h = 390 m
Skalstugan	(Sk):	63° 34.8' N,	12° 16.8' E;	h = 580 m
Göteborg	(Gb):	57° 41.9' N,	11° 58.7' E;	h = 66 m
<u>Umeå</u>	(Um):	63° 49.0' N,	20° 14.1' E;	h = 20 m

O C T O B E R 1 - 31, 1960
.....

1960					1960			
Oct 1	Up	1P	03 11 18		Oct 2	Up	1P	02 49 47
		i	03 11 41			Honshu, Japan.		
	K1	1P	03 11 12		" 2	Up	1PKP	04 56 39
	Sk	1P	03 11 33			i		04 56 48
	Gb	1P	03 11 37			K1	1PKP	04 56 54
	Burma.					Sk	1PKP	04 56 44
" 1	Up	1P	05 36 01			Sandwich Islands.		
		i	05 36 11		" X 2	K1	1PKP	12 13 10
		i	05 36 20			Pacific Ocean, SE of		
		i	05 36 43			Easter Island.		
	K1	1P	05 37 08		" 2	Up	1P	18 19 03
		i	05 37 13			i		18 19 19
	Sk	1P	05 36 39			K1	1P	18 19 00
	Gb	1P	05 35 53			i		18 19 16
	Near Crete.					Sk	1P	18 19 19
" 1	K1	1P	06 39 33			i		18 19 34
	Mindanao, Philippine Islands.					Gb	1P	18 19 22
" 1	Up	1PI	16 21 55			i		18 19 37
		1PII	16 21 58			Burma.		
		i	16 22 06		" 3	Up	1P	00 57 28
		1P'P'	16 49 52			i		00 57 31
	K1	1PI	16 21 01			i		00 57 45
		1PII	16 21 04			i		00 59 13
		1P'P'	16 50 32			K1	1P	00 57 45
	Sk	1PII	16 21 35			Sk	1P	00 57 56
		i	16 21 45			Gb	1P	00 57 46
	Gb	1PII	16 22 13			i		00 58 33
		i	16 22 20			West Pakistan.		
	Fox Islands, Aleutian Islands.							

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå

Year	Station	Code	Time	Year	Station	Code	Time
1960	Cot	3	Up 1P 02 44 54 Ki 1P 02 44 15 Sk 1P 02 44 48 Honshu, Japan.	1960	Oot	6	Up 1P 20 01 03 i 20 01 10 Ki 1P 20 01 02 i 20 01 08 i 20 01 30 Sk 1P 20 00 31 Gb 1P 20 00 44 i 20 00 57 North Atlantic Ocean.
"	X	3	Ki ePKP 05 29 37 Sk ePKP 05 29 31 Near coast of southern Chile.	"		6	Up 1P 20 03 51 Sk 1P 20 03 20 North Atlantic Ocean.
"		3	Ki 1P 10 26 06 Western New Guinea.	"		6	Up 1P 21 06 22 Sk 1P 21 05 52 North Atlantic Ocean.
"	X	3	Up 1P 20 03 58 Ki 1P 20 03 58 Sk 1P 20 04 22 Off coast of Sumatra.	"		6	Up 1P 21 17 32
"		4	Ki o 06 46 51 i 06 47 24 Sk i 06 47 54 Local.	"		6	Sk 1P 23 07 17
"	X	4	Up 1PKP 10 11 13 Ki 1PKP 10 11 13 Solomon Islands.	"	X	7	Up 1P 03 20 57 Ki 1P 03 20 53 i 03 20 57 Sk 1P 03 20 25 Gb 1P 03 20 39 North Atlantic Ocean.
"		4	Up 1P 10 56 44 Ki 1P 10 56 06 Sk eP 10 56 38 Gb 1P 10 57 03 Honshu, Japan.	"		7	Up 1P 03 23 12 Sk 1P 03 22 41 North Atlantic Ocean.
"		4	Up 1P 16 05 01 Ki o(P) 16 06 01	"		7	Up 1P 10 20 47
"		4	Ki 1(P) 19 20 34 Local.	"		7	Sk 1(P) 12 54 17
"		5	Ki 1P 12 36 07 Local.	"	X	7	Up 1P 15 32 49 i 15 34 32 i 15 36 04 iPP 15 37 27 Ki 1P 15 32 34 i 15 33 25 i 15 35 44 iPP 15 36 59 iPKKP 15 48 23 i 15 48 40 Sk 1P 15 32 56 iPP 15 36 59 Gb 1P 15 33 02 i 15 33 27 iPP 15 37 38 Banda Sea.
"	X	5	Up 1P 14 26 41 Ki 1(P) 14 23 50 i(P) 14 27 29 Gb 1P 14 26 48	"		7	Up 1(PKP) 20 19 01
"	X	6	Up 1P 16 27 41 i 16 27 47 Ki 1P 16 27 02 i 16 27 09 Sk 1P 16 27 46 i 16 30 00 Lake Baikal region.				
"		6	Up 1P 18 16 09				

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå

1960				1960			
Oct 7	Easter Island region.			Oct 9	Gb	iP	09 11 59
cont.				cont.		iPP	09 14 44
" 7	Ki	iP	21 27 31			iS	09 21 17
		i	21 27 36	Near coast of northern Honshu, Japan.			
" 8	Up	iP	02 04 34	" 9	Ki	iPKP	10 10 12
	Ki	iP	02 04 20	Samoa Islands region.			
		i	02 04 54	" 9	Up	iP	13 17 12
Oaxaca, Mexico.					Ki	iP	13 16 37
" 8	Up	iP	06 02 52		Sk	iP	13 17 10
		iSP	06 10 53		Gb	iP	13 17 35
		iP'P'	06 31 04	Sea of Japan.			
		i	06 31 14	" 9	Up	iP	21 51 43
		iSKPP'	06 33 09			i	21 52 14
	Ki	iP	06 02 15		Ki	iP	21 51 23
		ipP	06 04 19	" 10	Ki	iP	16 26 05
		iS	06 09 49	" 10	Ki	iP	17 23 35
		i	06 30 59	" 10	Ki	i(P)	17 44 45
		iP'P'	06 31 25		Gb	iP	17 43 44
	Sk	iP	06 02 49	" 11	Up	iP	08 16 54
	Gb	iP	06 03 13		Ki	iP	08 16 23
		ipP	06 05 19		Um	iP	08 16 47
		ipPaP	06 05 45	Western Colorado.			
		iP'P'	06 30 49	" 12	Ki	iP	00 32 20
Sea of Japan.					Um	iP	00 32 47
h = 650 km (Ki, Gb).				Near coast of Honshu, Japan.			
" 8	Up	iP	13 58 00	" 12	Up	iP	10 41 40
	Ki	iP	13 59 17			i	10 41 46
	Sk	iP	13 58 40			i	10 41 56
		i	13 58 55		Ki	eP	10 42 54
	Gb	iP	13 57 45		Sk	iP	10 42 20
Yugoslavia.					Gb	iP	10 41 26
" 8	Ki	iPKP	17 53 23		Um	eP	10 42 27
	Sk	iPKP	17 53 46	(Greece).			
Near coast of North Island, New Zealand.				" 12	Ki	eP	17 25 41
" 8	Up	iP	20 51 48	Banda Sea.			
	Ki	iP	20 51 50	" 13	Up	iP	02 24 49
	Sk	iP	20 52 02			i	02 24 53
	Gb	iP	20 51 55			i	02 25 04
		i	20 52 05		Ki	iP	02 26 13
Nicobar Islands.						i	02 26 43
" 9	Up	iP	09 11 38			i	02 32 27
		iPP	09 14 11		Sk	iP	02 25 42
	Ki	iP	09 10 56		Gb	iP	02 24 42
		i	09 11 18				
		iPP	09 13 11				
		iS	09 19 19				
	Sk	iP	09 11 30				

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå

1960				1960			
Oct 13		i	02 24 52	Oct 14	Sk	iP	13 21 37
cont.	Um	iP	02 25 32	cont.		i	13 21 44
		i	02 25 51		Gb	iP	13 22 15
		i	02 30 19		Um	iP	13 21 41
	Rumania.				Southeastern Alaska.		
" 13	Up	iP	02 38 42	" 14	Sk	iP	15 42 04
" 13	Up	e(P)	03 43 04		Um	iP	15 41 48
" 13	Um	i(P)	04 59 05		Near south coast of Mindanao.		
" 13	Sk	iP	06 12 28	" 14	Up	iP	15 50 13
	North of Crozet Islands.			" 14	Up	iP	21 30 10
" 13	Up	iP	15 02 54			i	21 30 14
		i	15 05 40			iP'iP'	21 58 25
	Sk	iP	15 02(38)			i	21 58 35
	Gb	iP	15 03 15		Sk	iP	21 29 50
		i	15 03 32			iP'iP'	21 58 30
	Um	i(P)	15 02 23			i	21 58 45
		i(P)	15 02 27		Gb	iP	21 30 25
		i	15 02 30			i	21 30 39
	Kamohatka.					iP'iP'	21 58 24
" 13	Up	iP	16 58 49		Um	iP	21 29 44
	Mariana Islands region.					i	21 29 47
" 13	Up	iP	21 48 55			i	21 30 22
" 14	Up	iP	01 11 07			iP'iP'	21 58 35
		i	01 11 19			i	21 58 48
	Ki	iP	01 10 49		Fox Islands, Aleutian Islands.		
	Sk	iP	01 11 24	" 14	Up	iP	23 01 30
	Near coast of Leyte, Philippine Islands.				Sk	iP	23 01 03
" 14	Um	iP	11 43 47		Gb	iP	23 01 00
		i	11 43 57		Um	iP	23 01 35
	Fox Islands, Aleutian Islands.				North Atlantic Ocean.		
" 14	Gb	i(P)	12 25 27	" 14	Up	iP	23 09 26
" 14	Up	iP	12 29 25		Sk	iP	23 09 02
		i	12 29 27		Um	iP	23 09 25
	Sk	iP	12 29 38		North Atlantic Ocean, aftershock.		
	Gb	iP	12 29 59	" 15	Up	iP	00 05 09
	Um	iP	12 29 24	" 15	Sk	eP	01 59 28
	Near coast of Sumatra.					i	01 59 35
" 14	Up	iP	13 22 07		North Atlantic Ocean, aftershock.		
		i	13 22 11	" 15	Up	iP ⁿ	06 20 51
						iP ^x	06 21 01
						iS ⁿ	06 21 44
						iS ^x	06 21 53
						D = 530 km = 4.8°.	

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå

1960

Oct 15 Sk 1Pn 06 20 31
 cont. 1Sn 06 21 13
 D = 340 km = 3.1°
 Um 1Pg 06 19 47
 1Sg 06 19 55
 D = 70 km = 0.6°
 Northern Sweden, 64.4°N,
 19.5°E. Origin time =
 06 19 35.

" 15 Sk 1P 06 41 17
 (North Atlantic Ocean,
 aftershock).

" 15 Ki 1P 11 41 33
 Off coast of Formosa.

" 16 Up 1P 01 46 34
 Ki 1(P) 01 45 40
 i 01 46 04
 Sk 1P 01 46 14
 Um 1P 01 46 05
 Near Islands, Aleutian
 Islands.

" 16 Gb 1PKP 05 12 22
 South of Fiji Islands.

" 16 Um 1P 09 47 23
 Off coast of Nicaragua.

" 16 Ki 1PKP 13 47 25
 Um ePKP 13 47 33
 Near coast of North
 Island, New Zealand.

" 16 Um 1P 14 02 04

" 16 Ki 1P 18 02 07
 Central Alaska.

" 16 Up 1P 19 30 32
 Ki 1P 19 29 42
 Sk eP 19 30 16
 Um 1P 19 30 08
 Kurile Islands.

" 16 Um 1P 21 31 45

" 16 Um 1P 21 52 28

" 17 Um 1P 00 39 15

" 17 Um 1PKP 13 55 47
 Off coast of Chile.

1960

Oct 17 Up 1P 15 58 24
 i 15 58 29
 Ki 1P 15 58 26
 i 15 58 30
 Sk 1P 15 58 12
 Gb 1P 15 58 13
 Um 1P 15 58 29
 Off coast of Colombia.

" 17 Ki 1P 16 09 03
 Sk 1P 16 08 50
 Um 1P 16 09 05
 Near coast of Colombia.

" 17 Up 1P 19 10 54
 Ki 1P 19 12 16
 Sk 1P 19 10 43
 Gb eP 19 10 30
 Um eP 19 11 05

" 17 Sk 1P 22 27 52
 i 22 29 27
 Um 1P 22 28 12
 i 22 29 46

Mexico Guatemala Border.
 Two shocks ?

" 18 Up 1PKP 00 19 22
 Gb 1PKP 00 19 33
 Um 1PKP 00 19 20
 South of Fiji Islands.

" 18 Ki 1P 00 31 52
 i 00 32 38
 Sk 1P 00 32 23
 Gb 1P 00 33 01
 Um 1P 00 32 20
 i 00 32 32
 Fox Islands, Aleutian Islands.

" 18 Ki 1P 10 34 20
 Sk 1P 10 34 46
 Kirghiz, U.S.S.R.

" 19 Ki 1P 05 16 57
 Um 1P 05 17 41
 (Arctic region).

" 19 Gb 1PKP 07 27 36
 Fiji Islands region.

" 19 Um 1P 08 06 05

" 20 Um 1P 06 24 53
 Near coast of Venezuela.

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå

1960				1960									
Oct	20	✓ Up	1PKP	11 24 58	Oct	21	Up	1P	20 56 02				
		✓ Ki	1PKP	11 24 44			"	22	Ki	i(P)	02 09 28		
		✓ Sk	1PKP	11 24 55			"	22	✓ Up	1PKP	08 41 06		
		✓ Gb	1PKP	11 25 05					i		08 41 15		
		✓ Um	1PKP	11 24 50					✓ Ki	ePKP	08 40 40		
				Santa Cruz Islands region.					✓ Sk	1PKP	08 40 51		
									i		08 40 47		
"	20	Up	1Sg	11 52 22					✓ Gb	ePKP	08 41 04		
		i		11 52 28					i		08 40 38		
		Sk	eSg	11 53 52					✓ Um	ePKP	08 40 46		
		Gb	1Sg	11 51 01							08 40 55		
		Um	eSg	11 54 27							Solomon Islands region.		
				Southern Sweden. Felt.									
				Macroseismic epicenter									
				56.2° N, 13.2° E.									
"	20	Up	1P	12 29 19					"	22	✓ Up	1P	19 21 09
		i		12 29 35							i		19 21 18
		Ki	1P	12 30 27					✓ Ki	1P			19 22 44
		Sk	1P	12 29 59					i				19 22 48
		Gb	eP	12 29 25					e				19 27 08
				(Eastern Mediterranean area).					✓ Sk	1P			19 22 01
									i				19 22 09
"	20	Ki	1P	12 50 34					✓ Gb	eP			19 20 33
		Um	1P	12 51 14					i				19 20 50
				(Arctic region).					✓ Um	1P			19 22 03
													Hungary-Rumania border.
"	20	Up	1P	23 51 06					"	23	✓ Ki	1P	06 41 21
		i		23 51 31							✓ Sk	1P	06 40 47
		Ki	1P	23 50 20							i		06 40 55
		Um	1P	23 50 43							✓ Gb	i(P)	06 39 53
				Kurile Islands region.							i		06 40 36
											✓ Um	eP	06 41 16
													Atlantic Ocean.
"	21	Up	1P	00 03 02					"	23	Ki	1P	07 51 03
		Ki	1P	00 02 15					"	23	Um	1P	09 21 49
		Sk	1P	00 02 51					"	23	Sk	1P	19 30 03
		Gb	1P	00 03 22					"	24	Um	i(P)	05 40 54
		Um	1P	00 02 41					"	24	Um	i(P)	04 09 16
													Seismic ?
"	21	Up	1P	02 11 48					"	24	✓ Ki	1P	05 30 47
		Ki	1P	02 11 51							✓ Sk	eP	05 31 23
		Sk	1P	02 12 05							✓ Um	1P	05 30 52
		Um	1P	02 11 51							i		05 31 26
													Hew Hebrides Islands region.
"	21	Up	1P	14 45 34					"	24	Ki	1P	05 54 33
		i		14 46 06							Sk	eP	05 56 38
		Ki	e(P)	14 44 44							Um	eP	05 54 43
		i(P)		14 45 08									
		i		14 45 13									
		Gb	i(P)	14 45 12									
"	21	Ki	1P	19 17 19									

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå

1960				1960			
Oct 24	1		05 55 30	Oct 27	Ki	iP	15 41 54
cont.		Hindu Kush region.		cont.		iS	15 43 44
" 24	Um	i(P)	09 13 09			iS ^x	15 44 06
		Seismic ?				eT	15 49 52
" 24	Sk	i(P)	09 39 57		Sk	iP	15 50 35
		Seismic ?				i	15 41 59
" 25	Um	i(P)	00 02 37			iS	15 42 06
		Seismic ?			Gb	iP	15 43 47
" 25	Ki	i(P)	11 41 26			i(S ^x)	15 43 12
		Seismic ?			Um	iP	15 46 29
" 26	Up	iP	01 58 35			i	15 42 25
	Ki	iP	01 57 42			iS	15 42 35
	Sk	iP	01 58 19			iS ^x	15 44 43
	Um	iP	01 58 14			iS ^x	15 45 15
		Near coast of Kamohatka.					
" 26	Ki	i(P)	11 20 50				Jan Mayen Island region.
		Seismic ?		" 27	Up	iPKP	22 46 39
" 26	Up	iP	22 59 51			i	22 46 45
	Sk	iP	23 00 34		Ki	iPKP	22 46 28
	Um	eP	23 00 36			i	22 46 31
		Greece.			Sk	iPKP	22 46 40
" 27	Up	iP	04 44 11		Gb	iPKP	22 46 42
	Ki	iP	04 43 40			i	22 46 52
	Sk	iP	04 44 09		Um	iPKP	22 46 28
	Um	iP	04 43 51			i	22 46 38
		Bonin Islands region.					Samoa Islands region.
" 27	Up	iP	11 04 04	" 28	Up	iP	04 22 21
	Ki	iP	11 03 40			i	04 22 23
	Sk	iP	11 04 10			iS	04 25 06
	Gb	i(P)	11 04 41		Ki	iP	04 21 16
		Luzon, Philippine Islands.				iS ^x	04 23 28
" 27	Ki	iP	12 48 10			eT	04 29 50
	Sk	iP	12 48 15		Sk	iP	04 21 22
		i(S ^x)	12 50 16		Gb	iP	04 22 30
	Um	i(S ^x)	12 51 21			i	04 22 57
		Jan Mayen Island region.			Um	i(S ^x)	04 25 46
" 27	Ki	iP	14 43 10			iP	04 21 50
	Sk	i(P)	14 44 03			i	04 21 54
		i	14 46 22			iS	04 24 09
" 27	Up	iP	15 42 58			iS ^x	04 24 43
		i	15 45 02				Jan Mayen Island.
		iS	15 45 42	" 28	Ki	iP	05 29 45
						iS	05 31 32
					Sk	iP	05 29 51
						i(S ^x)	05 31 51
					Um	iP	05 30 19
						eS	05 32 40
							Jan Mayen Island region.
" 27	Up	iP	15 42 58	" 28	Up	iP	07 50 17
		i	15 45 02			i	07 50 22
		iS	15 45 42			iS ^x	07 53 38

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå

1960				1960				
Oct 28	Ki	1P	07 49 11	Oct 29	Ki	1P	07 59 50	
cont.		i	07 49 21	" 29	Up	i(Sg)	11 19 06	
		i(S)	07 51 12	" 29	Ki	i(Sg)	11 19 00	
		eP	07 57 46			i	11 19 31	
	Sk	1P	07 49 15		Sk	i(Sg)	11 20 12	
		iS	07 51 09		Um	e(Sg)	11 18 24	
	Gb	1P	07 50 22			South Finland ?		
		i	07 50 28	" 29	Up	1P	17 24 35	
		i	07 53 25			i	17 25 14	
	Um	1P	07 49 46		Ki	1P	17 24 17	
		iS	07 52 06		Um	1P	17 24 19	
		iS ^x	07 52 37			Mindoro, Philippine Islands.		
				" 29	Up	iP	20 49 00	
						i	20 49 15	
" 28	Ki	i(P)	13 10 29		Ki	eP	20 50 12	
		Seismic ?				i	20 52 07	
" 28	Up	1P	13 28 39		Sk	1P	20 49 40	
	Ki	1P	13 27 47		Gb	eP	20 48 43	
		i	13 28 17			East of Sicily,		
		iP'P'	13 57 43			Mediterranean Sea.		
	Sk	1P	13 28 24	" 30	Ki	eP	16 04 10	
	Gb	1P	13 29 00			Spice Islands.		
		i	13 29 29	" 30	Up	i(P)	18 11 01	
		iS	13 37 47			i	18 11 12	
	Um	1P	13 28 12		Sk	1P	18 11 47	
		i	13 28 42			(Eastern Mediterranean area).		
		eP'P'	13 57 38	" 30	Up	iPP	21 51 31	
						Ki	ePP	21 51 39
" 28	Up	1P	22 41 03		Sk	iPP	21 51 48	
		i	22 41 17		Gb	iPP	21 51 07	
	Ki	1P	22 40 26			Chile-Bolivia border.		
		i	22 40 40	" 30	Ki	1P	22 01 41	
	Sk	1P	22 40 57		Sk	1P	22 02 30	
		i	22 41 11	" 31	Ki	1P	00 30 23	
	Gb	1P	22 41 23			Seismic ?		
		i	22 41 35	" 31	Up	eP	06 18 32	
	Um	1P	22 40 44	" 31	Up	i(P)	07 17 25	
		i	22 40 56			Ki	1P	07 15 34
						(Gulf of California).		
				" 31	Sk	1P	10 25 37	
				" 31	Up	i(Sg)	12 18 28	
" 28	Sk	eP	00 13 12		Ki	i(Sg)	12 18 53	
	Um	1P	00 13 19					
		Italy.						
" 29	Up	1P	01 34 19					
	Ki	1P	01 34 41					
	Sk	eP	01 34 48					
		i	01 35 10					
	Gb	eP	01 34 32					
	Um	eP	01 34 28					
		West Pakistan.						

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå

1960

Oct 31 Sk 1(Pg) 12 15 57
cont. 1(Sn) 12 16 24
1(Sg) 12 16 30
Um 1(Sg) 12 18 27
(Near west coast of Norway).

" 31 Up 1P 14 00 07
Ki 1(P) 14 00 30
i 14 01 23
Gb 1(P) 13 59 52

" 31 Ki 1P 21 02 26
Um 1P 21 02 40
South of Bonin Islands.

" 31 Up 1P 23 54 37
Ki 1P 23 53 42
Um 1P 23 54 10
Near southern coast of
Kamchatka.

Eysteinn Tryggvason
June 19, 1961.

Markus Båth

1960
Nov.

*Copied
JJS*

Uppsala

PRELIMINARY
SEISMOLOGICAL BULLETIN

U P P S A L A , K I R U N A , S K A L S T U G A N , G Ö T E B O R G , and
U M E Å

Uppsala (Up): 59° 51.5'N, 17° 37.6'E; h = 14 m
Kiruna (Ki): 67° 50.4'N, 20° 25.0'E; h = 390 m
Skalstugan (Sk): 63° 34.8'N, 12° 16.8'E; h = 580 m
Göteborg (Gb): 57° 41.9'N, 11° 58.7'E; h = 66 m
Umeå (Um): 63° 49.0'N, 20° 14.1'E; h = 20 m

N O V E M B E R 1 - 30, 1960
.....

1960				1960					
Nov	1	Um	i(P)	06 10 51	Nov	1	Up	i(Fg)	11 18 15
								iSg	11 18 47
"	1	✓ Up	iP	06 27 10			Ki	i(Fg)	11 18 45
		✓ Ki	iP	06 27 52			Sk	iSg	11 19 55
		✓ Sk	iP	06 27 22			Um	iSg	11 18 06
		✓ Um	iP	06 27 33			Local.		
		Ascension Island region (h ~ 40 km).							
					"	1	Ki	iSg	11 23 03
							Sk	eSg	11 23 29
							Um	iSg	11 21 49
							Local.		
"	1	✓ Up	iPKP	09 04 53					
		✓ Ki	iPKP	09 05 00					
			i	09 05 09					
			i	09 06 57					
		✓ Sk	iPKP	09 04 50	"	1	Up	i(Fg)	11 24 05
			i	09 05 39				iSg	11 24 35
			i	09 06 38			Ki	i(Fg)	11 24 35
		✓ Gb	iPKP	09 04 44			Sk	iSg	11 25 41
		✓ Um	iPKP	09 05 00			Um	iSg	11 23 54
		Near coast of Chile (h ~ 100 km).					Local.		
					"	1	Up	i(Fg)	11 26 35
							i		11 26 59
								iSg	11 27 09
"	1	Ki	iP	09 12 05			Ki	e(Fg)	11 27 05
								iSg	11 27 37
"	1	Up	iP	10 37 05			Sk	iSg	11 28 11
			i	10 37 19			Um	iSg	11 26 27
		Ki	iP	10 37 05			Local.		
			i	10 37 19					
		Sk	iP	10 37 19					
			i	10 37 32	"	1	Up	i(Fg)	11 28 49
		Um	iP	10 37 03				iSg	11 29 30
			i	10 37 17			Ki	iSg	11 30 04
		Near south coast of Sumatra (h ~ 40 km).					Sk	e	11 30 16
							i		11 30 37
							Um	iSg	11 28 46
							Local.		

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå

1960

Nov 1 Up 1(Tg) 11 33 19
 1Sg 11 33 46
 Ki 1(Tg) 11 33 45
 1Sg 11 34 17
 Sk o 11 34 21
 1Sg 11 34 56
 Um 1Sg 11 33 03

Local. This shock and the preceding five shocks have the same origin.

" 1 Up 1F 16 18 10
 i 16 18 20
 Ki 1F 16 19 28
 i 16 19 51
 Sk 1F 16 19 01
 Um 1F 16 19 03

Greece - Yugoslavia (h ~ 30 km).

" 1 Up 1F 19 16 47
 i 19 17 19
 Ki 1F 19 15 58
 Sk 1F 19 16 34
 i(pF) 19 17 11
 Um 1F 19 16 24

Near coast of Kamchatka (h ~ 160 km).

" 2 Up 1PKF 00 17 51
 i 00 17 54
 Ki 1PKF 00 17 32
 Sk 1PKF 00 17 46
 Um 1PKF 00 17 43

Kermadec Islands region (h ~ 40 km).

" 2 Ki 1F 15 39 14
 Kodiak Island, Alaska (h ~ 100 km).

" 2 Up 1F 16 42 13
 i 16 42 32
 i 16 42 57
 Ki 1F 16 42 08
 i 16 42 27
 Sk 1F 16 42 30
 Um 1F 16 42 05

Burma-East Pakistan border (h ~ 130 km).

" 2 Up 1PKF 17 33 50
 Ki 1PKF 17 33 37
 Sk 1PKF 17 33 48

1960

Nov 2 Um 1PKF 17 33 44
 cont. Santa Cruz Islands (h ~ 25 km).

" 2 Ki 1F 19 52 22
 1TF 19 54 17
 Tadjikistan, U.S.S.R.

" 3 Ki 1(P) 01 52 48

" 3 Up 1(P) 05 48 35

" 3 Ki 1PKF 17 49 08
 Fiji Islands region (h ~ 25 km).

" 4 Sk 1F 11 51 39

" 4 Up 1F 12 51 24
 Ki 1F 12 52 34
 Sk 1F 12 52 09
 Um 1F 12 52 12
 (Greece).

" 4 Up 1F 14 31 51
 Ki 1F 14 31 49
 Spice Islands (h ~ 25 km).

" 4 Up 1F 20 34 49

" 5 Up 1F 01 03 13
 Ki 1F 01 02 52
 Kyushu, Japan (h ~ 70 km).

" 5 Um 1F 17 13 03

" 5 Sk 1F 19 25 41

" 5 Up 1F 20 25 32
 i 20 29 33
 Sk 1F 20 26 14
 i 20 27 12
 i 20 30 47
 Gb 1F 20 25 19
 Um 1F 20 26 12
 i 20 26 23

Near coast of Greece (h ~ 50 km).

" 6 Up 1F 04 48 47
 Sk 1F 04 48 30
 Gb 1F 04 49 14
 i 04 49 22
 Um 1F 04 48 15

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå

1960				1960					
Nov	6	Near coast of Kamohatka (h ~ 30 km).		Nov	8	Up	1PKP	00 16 21	
							i	00 16 39	
						Sk	1PKP	00 16 13	
"	6	✓ Up	1PKP	06 34 36		Um	1PKP	00 16 18	
		✓ Sk	1PKP	06 34 30		i		00 16 30	
		✓ Gb	1PKP	06 34 42		Kermadec Islands region (h ~ 25 km).			
		✓ Um	1P	06 34 22					
			i	06 34 36					
		✓ Gb	1PKP	06 34 42					
		Kermadec Islands region (h ~ 180 km).			"	8	Up	1PKP	00 53 05
							Sk	1PKP	00 52 59
							Um	1PKP	00 53 02
							i		00 53 13
							Kermadec Islands region (h ~ 25 km).		
"	6	Up	1(Sg)	08 52 08		8	Up	e(PKP)	03 03 10
			i	08 52 23			Sk	1(PKP)	03 03 43
		Sk	1Pg	08 50 31			Um	1(PKP)	03 03 37
			1Sg	08 51 00			Kermadec Islands region (h ~ 25 km).		
		Um	1Pg	08 50 26					
			1Sg	08 50 46					
		Local.							
"	6	Up	1P	10 37 24		8	Sk	1P	04 37 09
		Um	1P	10 36 59			North Atlantic Ocean (h ~ 25 km).		
"	6	Up	1P	14 10 05					
"	6	Up	1P	15 27 38		8	✓ Up	1P	05 33 12
			i	15 27 43			✓ Ki	1P	05 32 25
		Um	1P	15 27 07			✓ Sk	1P	05 33 04
			i	15 27 18			Kurile Islands (h ~ 25 km).		
"	6	Ki	1P	16 58 09		8	Up	1P	05 38 24
							Ki	1P	05 37 37
"	6	Ki	1(P)	21 03 08			Kurile Islands (h ~ 25 km).		
"	6	Up	1P	22 21 02		8	Up	1PKP	11 19 32
		Ki	1P	22 20 09			Sk	1PKP	11 19 26
			i	22 20 15			i		11 19 34
		Sk	1P	22 20 35			Um	1PKP	11 19 20
			i	22 21 06			Kermadec Islands (h ~ 20 km).		
		Gb	1P	22 21 16					
			i	22 21 36		8	Ki	1P	13 45 55
		Um	1P	22 20 29			Sk	1P	13 46 24
			i	22 21 06			Alaska Peninsula (h ~ 30 km).		
		Fox Islands, Aleutian Islands (h ~ 40 km).				8	Up	1P	19 12 34
							Ki	1P	19 12 25
"	7	✓ Up	1P	13 34 31			Sk	1P	19 12 54
			i	13 34 38			Um	1P	19 12 28
		✓ Ki	1P	13 34 08					
			i	13 34 17		9	✓ Up	1PKP	03 36 54
		✓ Sk	eP	13 34 40			i		03 37 02
		✓ Um	1P	13 34 32			i		03 37 08
			i	13 34 40			✓ Ki	1PKP	03 37 10
		Kyushu, Japan (h ~ 25 km).					✓ Sk	1PKP	03 37 00
							i		03 37 14

Up = Uppsala, Ki = Kiruna, Sk = Skolstugan, Gb = Göteborg, Um = Umeå

Year	Date	Station	Type	Time	Location
1960	Nov 9	Gb	1PKP	03 36 49	Sandwich Islands (h ~ 40 km).
cont.		Um	1PKP	03 37 05	
"	9	Up	1P	10 53 51	Szechwan Province, China (h ~ 50 km).
		Ki	1P	10 53 30	
		i		10 53 34	
		Sk	1P	10 53 59	
		i		10 54 27	
		Gb	1P	10 54 11	
		i		10 54 18	
		Um	1P	10 53 37	
		i		10 53 43	
"	9	Up	1(P)	12 26 57	Loyalty Islands region (h ~ 130 km).
"	9	Ki	1P	12 40 33	
"	9	Up	1PKT2	19 52 43	Kermadec Islands region (h ~ 70 km).
		Ki	1PKT2	19 52 32	
		Sk	1PKT	19 52 20	
		i		19 52 23	
		Um	1PKP	19 52 18	
		i		19 52 29	
"	9	Sk	1P	23 00 14	Gulf of Mexico (h ~ 20 km).
"	10	Up	1P	01 45 25	
		i		01 45 41	
		Ki	1P	01 45 12	
		i		01 45 27	
		Sk	1P	01 45 04	
		i		01 45 19	
"	10	Up	1P	02 02 27	
		i		02 02 32	
		Ki	1P	02 02 36	
		Sk	1P	02 02 52	
		i		02 03 24	
		Gb	1P	02 02 48	
		i		02 04 36	
		Um	1P	02 02 26	
		i		02 03 02	
"	10	Up	1P	02 10 39	Hindu Kush (h ~ 60 km).
		Ki	1P	02 10 48	
		Sk	1P	02 11 05	
"	10	Ki	1P	05 40 34	North Atlantic Ocean (h ~ 30 km).
		Sk	1P	05 40 02	
		i		05 50 04	
"	10	Gb	1P	13 53 36	Near coast of New Guinea (h ~ 25 km).
"	10	Up	1(PKP)	15 03 38	
		Ki	1P	14 58 44	
		i		15 03 02	
		Gb	1(PKP)	15 03 35	
		Um	1P	14 58 55	
"	10	Ki	1PKP	16 49 33	
		Um	1PKP	16 49 44	
"	10	Up	1P	21 31 15	
		Ki	1P	21 29 51	
"	11	Up	1P	05 36 12	Greece-Albania region (h ~ 40 km).
		i		05 36 16	
		Ki	1P	05 37 28	
		i		05 40 48	
		Sk	1P	05 36 53	
		Gb	1P	05 36 01	
		Um	1P	05 36 56	
"	11	Up	1P	13 55 36	
		Ki	1P	13 54 40	
		Sk	1P	13 55 18	
"	11	Up	1P	22 34 13	Near east coast of Kamchatka (h ~ 30 km).
		Ki	1P	22 34 15	
"	11	Up	1P	22 53 04	Near east coast of Kamchatka (h ~ 40 km).
		Ki	1P	22 52 10	
		Gb	1P	22 53 25	
"	12	Up	1Pg	09 11 23	Near east coast of Kamchatka (h ~ 40 km).
			1Sg	09 11 42	
		i		09 11 46	
		i		09 11 50	

Up = Uppsala, Ki = Kiruna, Sk = Skelstugan, Gb = Göteborg, Um = Umeå

1960				1960			
Nov 12				Nov 13	Ki	iP	14 02 41
cont.	Explosion of 40 ton dynamite near Norrköping, Sweden. Origin time = 09.10.57.8 (measured directly at the explosion site).					i	14 02 51
" 12	Ki	iP	12 36 19	" 13	Ki	iP	14 39 28
" 12	Ki	iP	12 45 00				Fox Islands, Aleutian Islands (h ~ 50 km).
" 12	Up	iP	18 47 49	" 13	Ki	iP	15 38 07
		i	18 48 17				Fox Islands, Aleutian Islands (h ~ 80 km).
	Ki	iP	18 47 03	" 13	Ki	iP	17 29 26
	Kurile Islands (h ~ 170 km).						Fox Islands, Aleutian Islands (h ~ 80 km).
" 13	Up	iP	06 50 41	" 13	Ki	i(T)	19 09 18
		iP	06 54 36	" 13	Ki	oP	19 28 25
		i	06 54 45			i	19 29 12
	Ki	iP	06 50 25	" 13	Ki	iP	20 52 42
	Sk	iP	06 50 45				Azores, North Atlantic Ocean (h ~ 25 km).
		i	06 54 25	" 14	Up	iP	16 06 26
		iP	06 54 43		Ki	iP	16 06 17
	Molucca Passage (h ~ 60 km).					i	16 06 26
" 13	Up	iP	09 31 40 C		Sk	iP	16 06 44
	Ki	iP	09 30 46 D		Gb	iP	16 06 41
		iS	09 39 06				Burma (h ~ 60 km).
	Sk	iP	09 31 16	" 14	Up	iPKD	18 11 48
	Gb	iP	09 31 54 D		Ki	iPKD	18 11 40
		i	09 34 24				Fiji Islands region (h ~ 540 km).
	Fox Islands, Aleutian Islands (h ~ 70 km).			" 14	Ki	iP	20 12 01
" 13	Up	iP	09 59 45				Near coast of Chiapas, Mexico (h ~ 100 km).
		i	09 59 50	" 14	Ki	iP	20 17 10
	Ki	iP	10 00 07				Spain.
		i	10 00 17	" 15	Up	iP	09 16 22
" 13	Up	iP	10 12 11			i	09 16 32
" 13	Ki	iP	12 35 50		Ki	iP	09 16 16
		i	12 35 59		Sk	iP	09 16 37
	Fox Islands, Aleutian Islands (h ~ 40 km).					i	09 16 45
" 13	Ki	iP	13 34 41		Gb	iP	09 16 51
		i	13 34 50		Um	iP	09 16 12
	Sk	iP	13 35 14			i	09 16 38
	Fox Islands, Aleutian Islands (h ~ 25 km).						Near Burma-India border (h ~ 100 km).
" 13	Ki	iP	13 38 20				
	Fox Islands, Aleutian Islands (h ~ 50 km).						

Up = Uppsala, Ki = Kiruna, Sk = Skolstugan, Gb = Göteborg, Um = Umeå

1960				1960					
Nov	15	Ki	1PKF	21 59 55	Nov	17	Ki	i(F)	17 30 24
		Um	ePKF	21 59 59	"	17	Up	1F	19 57 47
				Off coast of North Island, New Zealand (h ~ 80 km).			Ki	1F	19 56 54
							Sk	1F	19 57 24
"	16	Up	1PKF	01 41 39				i	19 57 37
		Ki	1PKF	01 41 29			Gb	1F	19 58 02
		Sk	1PKF	01 41 35					Fox Islands, Aleutian Islands (h ~ 50 km).
		Gb	1PKF	01 41 50					
		Um	1PKF	01 41 36	"	18	Up	1F	05 48 20
			1SKF	01 44 18			Ki	1F	05 47 32
				South of Fiji Islands (h ~ 550 km).			Sk	1F	05 48 08
									Sea of Okhotsk (h ~ 300 km).
"	16	Up	1F	13 20 38	"	18	Ki	1F	06 10 11
"	16	Sk	i(F)	13 26 35			Sk	1F	06 09 45
"	16	Gb	1F	13 49 04			Gb	1F	06 09 00
"	16	Up	1F	14 10 56					East of Crete, Mediterranean Sea (h ~ 40 km).
"	16	Gb	1F	14 10 34	"	18	Up	1F	09 50 11
"	16	Sk	1F	14 40 39				i	09 50 30
"	16	Ki	1F	15 50 48				i	09 50 45
"	16	Sk	1F	15 50 04			Sk	1F	09 50 53
				Near coast of Colombia (h ~ 80 km).	"	18	Up	1F	10 31 01
"	16	Up	1F	23 08 37				i	10 31 12
			i	23 09 05	"	18	Up	1F	10 33 43
		Ki	1F	23 08 25				i	10 34 10
			1FF	23 10 18	"	18	Up	1F	12 29 18
		Sk	1F	23 08 51			Ki	1F	12 29 11
			i	23 08 57				i	12 29 43
		Gb	1F	23 09 02			Gb	1F	12 29 30
			i	23 09 07	"	18	Up	1Pg	12 51 49
		Um	1F	23 08 31				1Sg	12 52 13
			1FF	23 10 21			Ki	i(F)	12 53 39
				Sinkiang Province, China (h ~ 25 km).			Sk	1Sg	12 54 06
"	17	Sk	1PKF	04 27 37			Gb	i(Fg)	12 51 09
		Um	1PKF	04 27 37				1Sg	12 51 24
			i	04 27 49	"	18	Local.		
				Kermadec Islands region (h ~ 70 km).	"	18	Up	1F	19 48 15
"	17	Ki	1F	05 54 54	"	18	Up	1F	20 04 45
"	17	Up	1F	07 41 29	"	19	Ki	1F	12 29 54
			i	07 41 42					Caroline Islands region (h ~ 30 km).
"	17	Ki	eF	13 21 35	"	19	Ki	eF	13 21 35
			i	13 21 41				i	13 21 41

Up = Uppsala, Ki = Kiruna, Sk = Skälstugan, Gb = Göteborg, Um = Umeå

1960				1960			
Nov 19	Sk	1P	13 21 40	Nov 22	Up	i(Sg)	13 15 55
cont.						i	13 15 57
" 19	Ki	1P	16 12 15			i	13 16 05
		i	16 12 18		Sk	1Sg	13 17 48
" 19	Ki	i(P)	19 34 33		Um	1Sg	13 18 03
" 20	Up	1P	04 04 43		Local.		
	Ki	1P	04 04 15	" 22	Up	eP	18 03 29
	Sk	1P	04 04 41			i	18 03 34
	Um	1P	04 04 24			i	18 03 52
	Ryukyu Islands (h ~ 25 km).				Ki	1P	18 03 39
" 20	Ki	1P	22 15 49			i	18 03 52
		1PP	22 20 05		Sk	1P	18 03 56
X	Sk	i(P)	22 15 51		Um	1P	18 03 33
	Gb	1P	22 15 48		Nicobar Islands region		
		1PP	22 19 37		(h ~ 25 km).		
	Near coast of Peru			" 22	Sk	1P	18 50 45
	(h ~ 90 km).			" 22	Up	1P	22 39 51
" 21	Ki	1PKP	04 46 20		Sk	1P	22 38 59
	Um	1PKP	04 47 00	" 23	Up	1PKP	14 31 57
	New Ireland region				Ki	1PKP	14 31 38
	(h ~ 370 km).					i	14 31 47
" 21	Um	i(P)	07 31 49			1PP	14 34 31
" 21	Up	1P	18 54 56		Sk	1PKP	14 31 46
	Near east coast of					i	14 32 00
	Kamohatka (h ~ 60 km).				Gb	1PKP	14 32 04
" 21	Up	i(P)	19 03 38		Um	1PKP	14 31 48
" 22	Up	1P	03 13 52			i	14 31 53
	Ki	eP	03 14 46		South of Tonga Islands		
	Atlantic Ocean (h ~ 30 km).				region (h ~ 30 km).		
" 22	Up	1P	07 19 44	" 23	Up	1P	17 05 24
		i	07 19 53		Ki	1P	17 05 08
X	Ki	1P	07 18 51		Um	1P	17 05 12
	Sk	1P	07 19 28		Near Mindanao, Philippine		
	Um	1P	07 19 16		Islands (h ~ 140 km).		
	Near east coast of			" 23	Up	ePKP	18 16 08
	Kamchatka (h ~ 30 km).				Ki	1PKP	18 15 54
" 22	Up	1PKP	12 47 49		Gb	1PKP	18 16 16
	Ki	1PKP	12 47 57		Um	e(PKP)	18 15 53
	Sk	1PKP	12 47 51		South of Tonga Islands		
	Um	1PKP	12 47 56		region (h ~ 50 km).		
	Near coast of southern			" 23	Up	1PKP	21 32 45
	Chile (h ~ 110 km).					i	21 37 41
					Ki	1PKP	21 32 38
					Gb	1PKP	21 32 56
					Um	ePKP	21 32 42
					South of Fiji Islands region		
					(h ~ 630 km).		

Up = Uppsala, Ki = Kiruna, Sk = Skelstugan, Gb = Göteborg, Um = Umeå

1960				1960			
Nov 24	Up	1PKT	05 08 51	Nov 27	Up	1P	12 09 59
	Ki	1PKT	05 08 38		i		12 10 31
	Sk	1PKT	05 08 49		Ki	1P	12 09 33
	Um	1PKT	05 08 43		Sk	1P	12 09 34
	New Britain region (h ~ 90 km).				i		12 10 01
					Alaska (h ~ 170 km).		
" 24	Up	1PKT	07 12 13	" 27	Up	1P	15 28 08
	i		07 12 16		i(pP)		15 28 32
	Ki	1PKT	07 11 58		Ki	1P	15 27 25
	i		07 12 03		Sk	1P	15 27 59
	i		07 12 16		i(pP)		15 28 26
	Sk	1PKT	07 12 11		Gb	1P	15 28 30
	Gb	1PKT	07 12 23		i(pP)		15 28 52
	iPP		07 15 43		Um	1P	15 27 45
	Um	1PKT	07 12 04		i(pP)		15 28 10
	i		07 12 13		Near coast of Hokkaido, Japan (h ~ 120 km).		
	South of Tonga Islands region (h ~ 25 km).			" 27	Sk	1P	20 48 23
" 24	Up	1PKT	08 36 35		Um	1P	20 48 19
	Ki	1PKT	08 36 19		Congo (h ~ 60 km).		
	Gb	1PKT	08 36 26	" 28	Ki	1P	05 09 58
	South of Tonga Islands region (h ~ 25 km).			" 28	Up	1P	05 18 12
" 24	Ki	1PKT	08 45 56		i		05 18 17
	Gb	1PKT	08 45 56		i		05 18 31
	South of Tonga Islands region (h ~ 25 km).				Ki	1P	05 19 15
" 24	Um	1P	15 05 31		Sk	1P	05 18 51
" 25	Ki	i(P)	21 19 48		Um	1P	05 19 00
" 25	Up	1P	22 05 23		Near coast of Turkey (h ~ 70 km).		
	Ki	1P	22 04 44	" 28	Ki	i(P)	11 27 40
	i		22 05 08	" 28	Up	1Sg	13 15 12
	Sk	1P	22 05 17		Sk	1Sg	13 17 05
	i		22 05 41		Um	1Sg	13 15 51
	Gb	1P	22 05 44		Local.		
	Um	1P	22 05 02	" 28	Up	1P	13 35 58
	Honshu, Japan (h ~ 160 km).			" 28	Ki	1P	14 05 21
" 26	Um	1P	07 48 04	" 28	Ki	o(P)	14 17 32
	Near coast of Honshu, Japan (h ~ 100 km).			" 29	Ki	i(P)	11 14 07
" 26	Um	1P	14 54 09	" 29	Up	1P	14 18 37
" 26	Ki	1P	16 55 49		i		14 18 47
	i		16 55 58		i		14 19 09
	Um	1P	16 56 09		Ki	1P	14 18 10
	Fox Islands, Aleutian Islands (h ~ 90 km).				i		14 18 20
					Sk	1P	14 18 39

Up = Uppsala, Ki = Kiruna, Sk = Skälstugan, Gb = Göteborg, Um = Umeå

1960
Nov 29 ✓ i 14 18 48
cont. ✓ Gb iF 14 19 00
✓ Um iF 14 18 19
i 14 18 35
Ryukju Islands (h ~ 150 km).
" 29 Ki iF 15 29 25

Ingrid Pettersson
September 11, 1961

Markus Båth

Seismological Institute
University
Uppsala, Sweden

1960

sec.

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Uppsala

P R E L I M I N A R Y

S E I S M O L O G I C A L B U L L E T I N

U P P S A L A , K I R U N A , S K A L S T U G A N , G Ö T E B O R G , and
U M E Å

Uppsala (Up): 59°51.5'N, 17°37.6'E; h = 14 m
Kiruna (Ki): 67°50.4'N, 20°25.0'E; h = 390 m
Skalstugan (Sk): 63°34.8'N, 12°16.8'E; h = 580 m
Göteborg (Gb): 57°41.9'N, 11°58.7'E; h = 66 m
Umeå (Um): 63°49.0'N, 20°14.1'E; h = 20 m

D E C E M B E R 1 - 31, 1960

1960					1960			
Dec 1	X	Up	1P	04 07 34	Dec 2	X	Um	1(PKP) 09 29 30
			1PP	04 08 10	cont.			1PF 09 30 13
		Western Turkey (h ~ 140 km).						1PKK 09 40 18
"		Ki	1P	11 57 25			Near coast of Chile (h ~ 40 km).	
"		Up	1P	13 28 44	"	2	Up	1P 17 55 09
			i	13 28 50			Ryukyu Islands (h ~ 80 km).	
		Sk	1P	13 29 27	"	3	Up	1P 04 33 29
		Um	1P	13 29 36			Ki	1P 04 33 00
"	1	Up	1P	21 00 49		X	Sk	1P 04 33 35
			i	21 00 59			Gb	1P 04 33 56
	X	Ki	1P	21 00 22			i	04 37 44
		Sk	1P	21 00 17			Outer Mongolia (h ~ 50 km).	
		Off coast of Vancouver Island (h ~ 15 km).			"	3	Up	1P 07 18 32
"	2	Ki	1P	04 12 41			i	07 19 17
		Um	1P	04 13 08		X	i	07 20 17
		Fox Islands, Aleutian Islands (h ~ 70 km).					Ki	1P 07 17 39
"	2	Up	1PKT	09 29 22			i	07 18 24
			i(PK)	09 29 48			Gb	1P 07 19 38
	X	Ki	1PKT	09 29 17			Um	1P 07 18 02
			1PKK	09 40 23			i	07 18 52
		Gb	e(PK)	09 29 17			Andreanof Islands, Aleutian Islands (h ~ 80 km).	
			i	09 29 29	"	3	Up	1P 09 23 54
							i	09 24 18

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb=Göteborg, Um=Umeå

1960

Dec 3 Up 1F 09 24 28
 Ki 1F 09 23 57
 Um 1F 09 24 05
 Off south coast of Formosa
 (h ~ 40 km).

" 3 Up 1F 11 33 15

" 3 Up 1F 11 45 58

" 3 Up 1F 18 05 45
 Ki 1F 18 05 18
 Um 1F 18 05 24
 Outer Mongolia (h ~ 25 km).

" 3 X Ki 1F 20 27 07
 Sk 1F 20 27 44
 1 20 28 21
 Laptev Sea (h ~ 30 km).

" 4 X Up 1F 16 32 22
 1 16 32 35
 X Ki 1F 16 31 45
 Off coast of Honshu, Japan
 (h ~ 110 km).

" 5 Up 1PKF 00 13 53
 Ki 1PKF 00 13 46
 Gb 1PKF 00 14 03
 Fiji Islands region
 (h ~ 630 km).

" 5 Up i 03 22 18
 1 03 23 08
 1(Sg) 03 23 21
 Ki 1F 03 20 19
 1 03 20 24
 1Sg 03 21 15
 Um 1 03 21 01
 1Sg 03 21 07
 Local.

" 5 X Up 1F 08 47 58
 Ki 1F 08 47 30
 Outer Mongolia (h ~ 60 km).

" 5 Ki 1F 17 38 47

" 5 Up 1F 18 00 05
 1 18 00 10
 Ki 1F 17 59 10
 Gb 1F 18 00 25
 Near east coast of Kamchatka
 (h ~ 25 km).

1960

Dec 5 X Up 1F 18 17 51
 X Ki 1F 18 16 56
 1 18 17 07
 Near east coast of Kamchatka
 (h ~ 25 km).

" 5 X Up 1F 21 27 46
 1 21 27 59
 X Ki 1F 21 28 45
 1 21 28 58
 X Gb 1F 21 27 12
 1 21 27 26
 Straits of Gibraltar
 (h ~ 70 km).

" 6 Up 1F 03 44 41
 Ki 1F 03 44 13
 Outer Mongolia (h ~ 60 km).

" 6 X Up 1F 09 08 30
 X Ki 1F 09 08 56
 Near coast of Panama
 (h ~ 120 km).

" 6 X Up 1 09 15 10
 X Ki 1PKF 09 14 51
 Northern Chile (h ~ 25 km).

" 6 Up 1F 18 32 30
 Ki 1F 18 32 10
 Samar, Philippine Islands
 (h ~ 25 km).

" X 6 X Ki 1F 21 47 05
 Sumatra (h ~ 50 km).

" 6 Up eF 22 19 51

" 7 Up 1PKF 03 19 27
 1 03 19 39
 Ki 1PKF 03 19 09
 1 03 19 22
 North Island, New Zealand
 region (h ~ 25 km).

" 7 Ki 1F 07 51 28
 Alaska (h ~ 60 km).

" 7 Gb 1F 08 32 13

" 7 Ki 1F 14 14 37

" 8 Up 1PKF 01 21 17
 1 01 21 29

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå

1960

Dec 8
cont.

Ki 1PKP 01 20 49
i 01 20 57
Sk 1PKP 01 21 01
i 01 21 12
North Island, New Zealand
region (h ~ 80 km).

8 Up 1PKP 01 42 29
Ki 1PKP 01 42 22
Sk 1PKP 01 42 22
Gb 1PKP 01 42 40
i 01 42 44
Fiji Islands region
(h ~ 690 km).

8 Up 1(P) 03 55 20

8 Ki 1(P) 08 48 21
i 08 48 30

8 Up 1PKP 14 52 26
i 14 52 29
Ki 1PKP 14 52 05
e 14 52 49
Sk 1PKP 14 52 19
Gb 1PKP 14 52 34
Kermadec Islands region
(h ~ 70 km).

8 Ki 1(P) 16 27 15

9 Um 1P 11 33 42

9 Up 1P 21 28 18
i 21 31 32
Ki 1P 21 27 03
i 21 27 15
eT 21 33 26
e 21 33 58
Sk 1P 21 27 18
i 21 29 04

Jan Mayen Island region
(h ~ 60 km).

10 Up 1P 06 41 37
Ki 1P 06 41 17
Near north coast of Luzon,
Philippine Islands (h ~ 60 km).

10 Up 1P 14 08 17
Ki 1P 14 08 03
Sk 1P 14 08 23
Celebes Sea (h ~ 290 km).

1960

Dec 10 Up 1P 18 33 10
Sk 1P 18 33 01

11 Ki 1PKP 00 20 09
Loyalty Islands region
(h ~ 140 km).

11 Up 1P 01 02 49
Ki 1P 01 02 33

11 Up 1P 01 16 26
Ki 1P 01 16 15
Sk 1P 01 16 40
Gb 1P 01 16 59
Sinkiang Province, China
(h ~ 80 km).

11 Sk 1P 02 53 57

11 Up 1P 03 31 57
Ki 1P 03 31 29
Molucca Passage (h ~ 50 km).

11 Gb 1P 09 44 47

11 Up 1PKP 19 12 12
1SKP 19 15 34
i 19 15 41
Ki 1PKP 19 11 57
i 19 12 05
Sk 1PKP 19 12 07
1SKP 19 15 29
Gb 1PKP 19 12 17
1SKP 19 15 48

New Hebrides Islands region
(h ~ 130 km).

12 Gb 1P 17 03 36

12 Ki 1P 21 26 37

12 Up 1P 21 30 09

13 Up 1PKP2 07 57 04
i 07 57 18
1FP 08 00 57
Ki 1PKP 07 56 24
1PKP2 07 56 43
Sk 1(PKP2) 07 56 49
1PKP2 07 57 15
1FP 08 01 01
Gb 1PKP 07 56 37
1PKP2 07 57 31

Masquarie Islands (h ~ 30 km).

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå

1960				1960			
Dec 13	Gb	1PKF	09 22 36	Dec 16	Ki	1P	01 30 16
	Tonga Islands (h ~ 80 km).			cont.		1	01 30 29
" 13	Up	1P	10 17 42		Sk	1P	01 31 01
		i	10 17 52		Gb	1P	01 31 24
X	Ki	1P	10 17 09	Fox Islands, Aleutian Islands (h ~ 30 km).			
		i	10 17 16	" 16	Up	1P	16 58 04
	Sk	1P	10 17 38		Ki	1P	16 58 54
		i	10 17 49	Near coast of Eritrea (h ~ 25 km).			
		1(PF)	10 20 53	" 16	Up	1P	18 27 55
	Gb	1P	10 18 01	X	Ki	1P	18 23 33
	Bonin Islands region (h ~ 30 km).			North Atlantic Ocean (h ~ 20 km).			
" 14	Up	1P	04 14 08	" 16	Ki	1P	21 09 09
	Ki	1P	04 13 38			1	21 09 13
	Sk	1P	04 13 56	" 17	Ki	1(P)	02 11 26
	Ryukyu Islands region (h ~ 25 km).					1	02 11 29
" 14	Up	1PKF	08 33 11	" 17	Up	1P	02 15 35
	Ki	1PKF	08 32 55			1	02 15 45
	Sk	1PKF	08 33 05		Ki	1P	02 14 43
	Kermadec Islands region (h ~ 25 km).					1	02 14 45
" 14	Up	eP	21 33 24		Gb	1P	02 15 51
	Ki	eP	21 33 40	Andreanof Islands, Aleutian Islands (h ~ 90 km).			
" 14/15	Up	1P	00 04 52	" 17	Up	1P	10 50 14
		i	00 04 56			1pP	10 51 18
		i	00 05 01	X		1PP	10 54 31
	Ki	1P	00 04 36			1	10 55 22
		i	00 04 51		Ki	1P	10 50 10
	Sk	1P	00 04 59			1pP	10 51 14
	Gb	1P	00 05 08	Java Sea (h ~ 300 km).			
		i	00 05 23	" 17	Up	1P	12 08 18
		1	00 05 33		Ki	1P	12 08 53
		i	00 08 18	" 17	Up	1P	12 35 23
	Molucca Passage (h ~ 80 km).			" 17	Up	1P	16 55 42
" 15	Up	1P	04 14 22			i	16 55 54
		i	04 14 49			1	16 56 02
" 15	Ki	1P	11 27 33	X	Ki	1P	16 54 54
" 15	Up	1P	12 22 18			1	16 55 23
	Ki	1P	12 22 04		Sk	1P	16 55 29
	Luzon, Philippine Islands (h ~ 150 km).				Gb	1P	16 56 03
" 16	Up	1P	01 31 09	Kurile Islands (h ~ 15 km).			
		i	01 31 23	" 18	Sk	1P	17 05 30
		i	01 31 44				

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå

1960				1960						
Dec	18	Up	iP	18 33 56	Dec	21	Ki	iP	21 02 47	
		Ki	iP	18 33 32				i	21 02 54	
		Mindanao, Philippine Islands (h ~ 40 km).				"	21	Ki	iP	21 06 47
								i	21 07 31	
"	19	Up	iP	00 09 16				Mariana Islands region (h ~ 70 km).		
			i	00 09 19		"	21	Ki	ePKT ₂	22 50 52
		Hindu Kush (h ~ 25 km).						North of Balleny Islands (h ~ 30 km).		
"	19	Ki	iPKT	07 19 01		"	22	Up	iPKT	02 44 33
		Sk	iPKT	07 19 16				i	02 44 38	
		Loyalty Islands region (h ~ 25 km).						iPKT	02 46 15	
"	19	Ki	iP	07 33 35				Ki	iPKT	02 44 17
"	19	Up	iP	13 39 26				i(SKT)	02 47 08	
		Ki	iP	13 38 33				Sk	iPKT	02 44 27
			i	13 38 52				Gb	iPKT	02 44 42
		Sk	iP	13 39 07				Kermadec Islands region (h ~ 380 km).		
"	19	Up	iP	14 38 27		"	22	Ki	1(P)	03 08 01
		Sk	iP	14 39 03						
		Italy.				"	22	Up	iP	03 14 06
"	19	Ki	iP	19 12 44				i	03 14 11	
		Mariana Islands (h ~ 80 km).						Ki	iP	03 14 05
"	20	Up	iP	03 28 27				i	03 14 12	
		Gb	iP	03 28 42				Sk	iP	03 14 23
"	20	Up	iP	06 16 17				i	03 14 59	
		Ki	iP	06 15 52				Gb	iP	03 14 22
		Near north coast of Formosa (h ~ 60 km).						i	03 14 26	
"	20	Up	iP	12 17 11				Nicobar Islands (h ~ 60 km).		
		Ki	iP	12 16 53		"	22	Up	iPKT	06 51 07
		Gb	iP	12 17 33				i	06 51 13	
"	21	Ki	iP	00 07 57				i	06 51 32	
			i	00 08 11				Ki	iPKT	06 50 44
		Southwestern Sumatra (h ~ 160 km).						i	06 50 53	
"	21	Up	1(P)	01 33 58				Sk	iPKT	06 51 01
								Gb	iPKT	06 51 15
"	21	Ki	iP	03 27 01				i	06 51 26	
								Kermadec Islands region (h ~ 50 km).		
"	21	Up	iP	14 49 44		"	22	Up	iP	07 26 10
		Ki	iP	14 48 47				i	07 26 17	
			iPKT	14 49 44		"	22	Up	iPKT	14 31 57
		Sk	iP	14 49 16				i	14 32 18	
		Alaska (h ~ 170 km).						Ki	iPKT	14 31 41
								Sk	iPKT	14 31 48
								Gb	iPKT	14 32 06
								Kermadec Islands region (h ~ 60 km).		

Up = Uppsala, Ki = Kiruna, Sk = Skalistugan, Gb = Göteborg, Um = Umeå

1960				1960			
Dec 22	Ki	iP	14 37 37	Dec 25	Up	iP	11 30 17
		i	14 38 04			i	11 31 13
	Fox Islands, Aleutian Islands (h ~ 60 km).				Ki	iP	11 31 42
" 22	Ki	iP	18 56 31	" 25	Up	iP	18 52 13
" 22	Up	iPKP	21 20 39	" 25	Up	iP	20 37 55
X	Ki	iPKP	21 20 27	X	Ki	iP	20 37 00
	Gb	iPKP	21 20 46		Sk	iP	20 37 38
	Solomon Islands (h ~ 470 km).				Gb	iP	20 38 15
" 23	Up	eP	04 56 01		Near east coast of Kamohatka (h ~ 40 km).		
" 23	Up	iP	05 57 19	" 26	Up	iP	01 14 28
		i	05 57 46		Ki	iP	01 14 07
		i	05 57 55	" 26	Gb	iPKP	01 15 59
" 23	Up	iP	09 54 37			i	01 16 10
X	Ki	iP	09 54 36		Tonga Islands region (h ~ 60 km).		
		i	09 54 41	" 26	Up	iP	01 56 28
		i	09 54 52			i	01 56 32
	Sk	iP	09 54 50	X	Ki	iP	01 55 39
	Near coast of Sumatra (h ~ 130 km).					i	01 55 52
" 23	Up	iP	11 00 19		Sk	iP	01 56 20
X	Ki	iP	11 00 20			i	01 56 25
" 23	Ki	iP	11 00 43		Gb	iP	01 56 50
	Mindanao, Philippine Islands (h ~ 70 km).				Near south coast of Honshu, Japan (h ~ 110 km).		
" 23	Ki	iP	12 30 50	" 26	Up	iPKP	04 51 21
" 23	Up	iPKP	19 26 19			i	04 51 48
		i	19 26 53	X		i	04 54 46
	Gb	iPKP	19 26 38		Ki	iPKP	04 51 37
	Kermadec Islands region (h ~ 260 km).					i	04 51 48
" 23	Ki	iP	19 42 46			i	04 52 06
	Near east coast of Luzon, Philippine Islands (h ~ 50 km).					i	04 52 41
" 23	Ki	i(P)	22 05 43			i	04 54 49
" 24	Up	iP	11 09 05		Sk	iPKP	04 51 26
" 25	Up	iP	05 33 16		Sandwich Islands (h ~ 25 km).		
X		i	05 33 18	" 26	Up	iP	05 01 22
	Bonin Islands (h ~ 25 km).					i	05 01 23
				" 26	Ki	iP	05 04 49
				" 26	Ki	iPKP ₂	14 03 30
					South of South Island, New Zealand (h ~ 40 km).		
				" 26	Up	i(P)	22 25 20

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå

1960				1960					
Dec	26	Up	iP	22 56 14	Dec	30	Up	iPg	10 32 17
								iSg	10 32 41
"	27	Ki	iP	10 46 25				D = 200 km = 1.8°.	
			i	10 46 35				Gulf of Bothnia.	
		Gb	iP	10 47 08				Origin time = 10 31 41.	
				Off coast of northern California (h ~ 30 km).					
"	28	Ki	iP	05 46 16	"	30	Up	iPg	10 39 11
				Near coast of Greece (h ~ 70 km).				iSg	10 39 35
								i	10 39 36
								D = 200 km = 1.8°.	
							Sk	iSg	10 41 07
								Gulf of Bothnia.	
								Origin time = 10 38 35.	
"	28	Up	iP	19 55 40	"	30	Up	iP	10 54 36
		Sk	iP	19 55 13				iSg	10 54 59
				Kodiak Island, Alaska (h ~ 30 km).				i	10 55 00
								D = 200 km = 1.8°.	
"	28	Up	iP	22 39 11			Sk	eSg	10 56 30
		Gb	iP	22 39 21				Gulf of Bothnia.	
								Origin time = 10 54 00.	
"	29	Up	i(P)	09 52 29	"	30	Up	iPg	10 59 19
			i	09 52 39				iSg	10 59 42
								i	10 59 44
								D = 200 km = 1.8°.	
"	29	Up	iPKT	10 55 51			Ki	e(Sg)	11 02 24
			i	10 55 58			Sk	iSg	11 01 13
		Ki	iPKT	10 55 54				Gulf of Bothnia.	
				Near coast of southern Chile (h ~ 30 km).				Origin time = 10 58 43.	
"	29	Up	i(P)	13 23 23	"	30	Up	iPg	11 08 41
								i(S ^x)	11 09 03
"	29	Up	iP	18 09 16				iSg	11 09 04
								D = 200 km = 1.8°.	
"	29	Up	iP	18 25 00			Ki	eSg	11 11 41
		Ki	iP	18 26 11				D = 720 km = 6.5°.	
			i	18 26 22			Sk	iSg	11 10 35
				Near Crete, Mediterranean Sea (h ~ 50 km).				D = 500 km = 4.5°.	
"	29	Up	eP	23 20 04			Gb	eSg	11 10 59
								D = 590 km = 5.3°.	
"	30	Up	iP	01 52 11				Gulf of Bothnia, 61.4 N, 19.5° E. Origin time = 11 08 05.	
"	30	Up	iP	02 11 17	"	30	Up	iPg	11 22 57
"	30	Ki	iP	08 38 16				iSg	11 23 21
								D = 200 km = 1.8°.	
"	30	Up	iPg	10 18 43			Ki	eSg	11 26 02
			iSg	10 19 07			Sk	iSg	11 24 51
				D = 200 km = 1.8°.			Gb	i(Sg)	11 25 16
				Gulf of Bothnia.				Gulf of Bothnia.	
				Origin time = 10 18 07.				Origin time = 11 22 21.	

Up = Uppsala, Ki = Kiruna, Sk = Skalstugan, Gb = Göteborg, Um = Umeå.

1960

Dec 30 Up iPg 11 23 00
iSg 11 23 24
D = 200 km = 1.8°.

Gulf of Bothnia.

Origin time = 11 22 24.

" 30 Up iP 21 40 50
Ki iP 21 40 59
i 21 42 03
Hindu Kush (h ~ 200 km).

" 31 Up iPKP 00 27 51
i 00 27 55
Ki iPKP 00 27 34
Gb iPKP 00 28 00
Kermadec Islands region
(h ~ 70 km).

" 31 Up iP 03 50 29
i 03 50 51

" 31 Ki iP 05 12 54

" 31 Ki iPg 16 15 09
iSg 16 15 18
iL 16 15 22
D = 80 km = 0.7°.

Explosion of 14 ton dynamite
at Malmberget, Gällivare.

X
✓
✓
" 31 Up iPKP 18 27 12
Ki iPKP 18 27 19
i 18 27 28
Sk iPKP 18 27 11
Near coast of southern
Chile (h ~ 90 km).

" 31 Ki iP 19 28 46

Ingrid Pettersson
September 25, 1961

Markus Båth