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U. S. DEPARTMENT OF COMMERCE

Sinclair Weeks, Secretary

COAST AND GEODETIC SURVEY—WASHINGTON

H. Arnold Karo, Director

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National Oceanic and Atmospheric Administration

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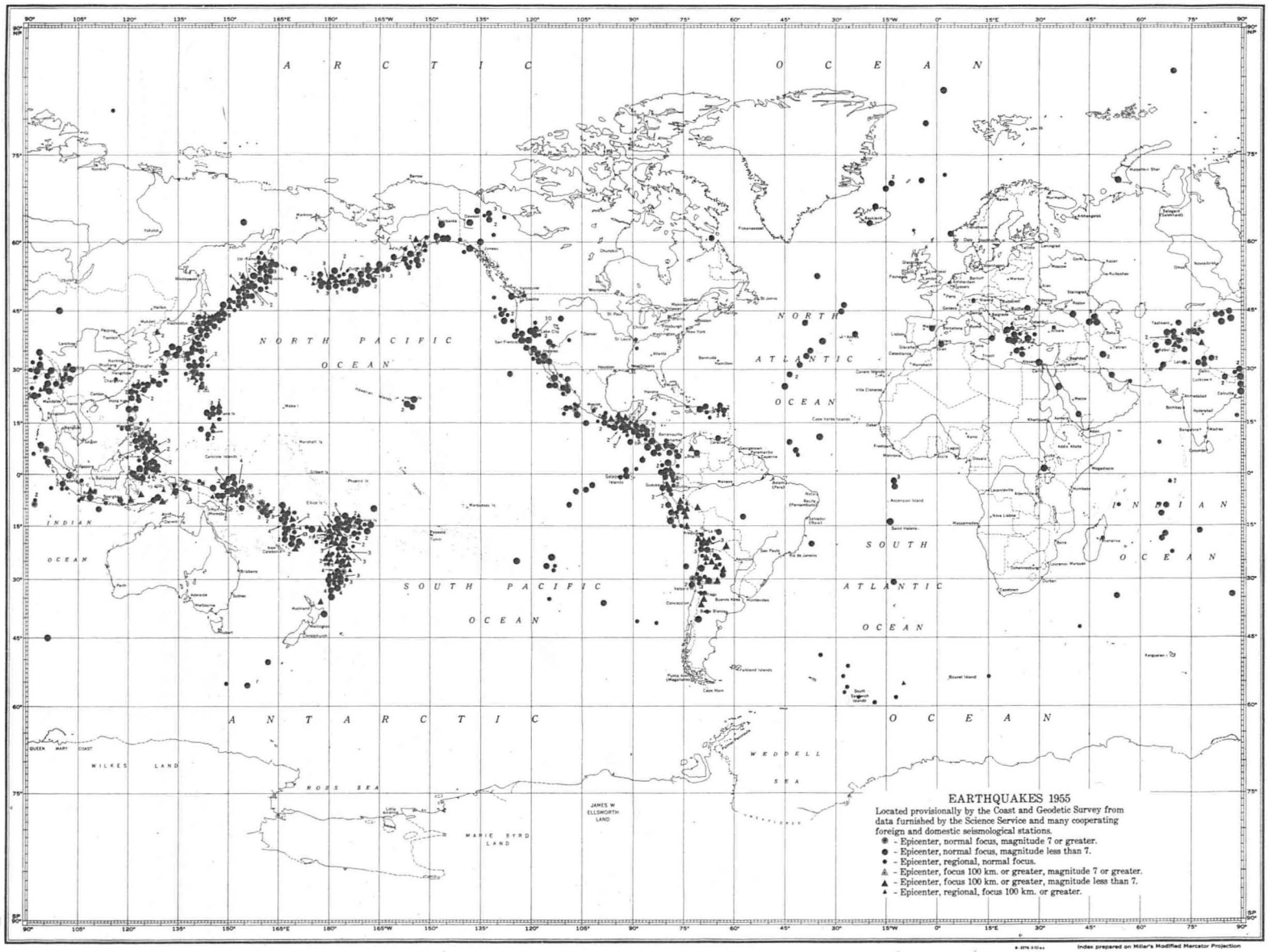
ARCTIC OCEAN
NORTH PACIFIC OCEAN
NORTH ATLANTIC OCEAN
SOUTH PACIFIC OCEAN
SOUTH ATLANTIC OCEAN
INDIAN OCEAN
ANTARCTIC OCEAN
WEDDELL SEA
ROSS SEA
QUEEN MARY COAST
WILKES LAND
MARIE BYRD LAND
JAMES W ELLSWORTH LAND
EARTHQUAKES 1955
Located provisionally by the Coast and Geodetic Survey from data furnished by the Science Service and many cooperating foreign and domestic seismological stations.
- Epicenter, normal focus, magnitude 7 or greater.
- Epicenter, normal focus, magnitude less than 7.
- Epicenter, regional, normal focus.
- Epicenter, focus 100 km. or greater, magnitude 7 or greater.
- Epicenter, focus 100 km. or greater, magnitude less than 7.
- Epicenter, regional, focus 100 km. or greater.
Index prepared on Miller's Modified Mercator Projection

The instrumental results of the following stations are tabulated in this report.

**Balboa Heights, C. Z. (BH)
The Panama Canal
*Boulder City, Nev. (BC)
Bureau of Reclamation
*Bozeman, Mont. (BOZ)
Montana State College
**Burlington, Vt. (BUR)
University of Vermont
*Butte, Mont. (BUT)
Montana School of Mines
*Chicago, Ill. (CHI)
University of Chicago and
U. S. Weather Bureau
College, Alaska (COL)
*Columbia, S. C. (COLU)
University of South Carolina
*Eureka, Nev. (EUR)
Eureka Corporation Limited
Honolulu, T. H. (HONO)
*Hungry Horse, Mont. (HH)
Bureau of Reclamation
*Lincoln, Nebr. (LIN)
Nebraska Wesleyan University
**Philadelphia, Pa. (PHIL)
The Franklin Institute
**Rapid City, S. Dak. (RC)
South Dakota State School of Mines
*Salt Lake City, Utah (SLC)
University of Utah
San Juan, Puerto Rico (SJ)
Sitka, Alaska (SIT)
Tucson, Ariz. (TUC)
Ukiah, Calif. (UK)
International Latitude Observatory
Washington, D. C. (WASH)

*Indicates a station maintained by a local institution in cooperation with the Coast and Geodetic Survey.
**Indicates a station operating on an independent basis.
Other stations are observatories of the Coast and Geodetic Survey.

All seismogram interpretations are made or revised at Washington except those for Balboa Heights.
All magnitude determinations are by Pasadena unless otherwise stated. Minor earthquakes are listed at the end of the bulletin.

One asterisk (*) following an origin time indicates probable error of one-tenth minute. Two asterisks (**) following an origin time indicates error of one quarter minute. All origin times and locations are determined from P data only. For Pasadena epicenters the time is given in one-tenth minute.

All seismograms are on file in the Coast and Geodetic Survey, except those from Balboa Heights and Burlington, which may be obtained on loan by addressing the Seismograph Station Director: - Meteorological and Hydrographic Office, Panama Canal Company, Balboa Heights, Canal Zone; University of Vermont, Burlington, Vermont.

Date 1955	Origin Time G. C. T.	Lat.	Long.	Region, Focal Depth, and Remarks
Dec.	h m s	° '	° '	
1	08 38 21**			Solomon Islands region. h about 100 km.
1	10 25 00*	39-1/2 N.	118 W.	Near Fallon, Nevada.
3	14 27 54*	35-1/2 N.	135 E.	Southern Honshu, Japan.
4	02 01 28*	35 S.	179-1/2 W.	Kermadec Islands region.
4	14 02 08*	34 N.	49 E.	Central Iran.
5	07 27 24*	30 N.	89-1/2 E.	Tibet.
5	12 06 55**			Southern Tibet.
5	13 30 56*	35 N.	133 E.	Southern Honshu, Japan.
5	14 26 46*	23-1/2 S.	67 W.	Jujuy Province, Argentina. h about 150 km.
5	20 14 18*	24 N.	122-1/2 E.	Off east coast of Formosa.
6	04 31 00*	20 S.	70 W.	Northern Chile. Felt at Iquique. Mag. 6-3/4.
7	05 49 40**			Central Yukon, Canada.
7	14 26 26*	15 S.	173-1/2 W.	Samoa Islands region. Felt at Moto'otua and Apia.
7	15 03 11*	26-1/2 N.	142-1/2 E.	Bonin Islands. Mag. 6-3/4 - 7.
7	16 09 45**			Tonga Islands region. h about 200 km.
7	22 53 27*	26 N.	128-1/2 E.	Ryukyu Islands.
8	02 08 03**			Near south coast of Sumatra.
8	17 36 00*	4 S.	152 E.	New Britain region. h about 500 km.
8	21 58 03*	45 N.	99-1/2 E.	Outer Mongolia.
9	08 58 06*	31 S.	176-1/2 W.	Kermadec Islands region.
10	20 24 14*	64-1/2 N.	154 E.	Northeastern Siberia.
11	03 27 08**			Kermadec Islands.
11	05 42 35*	27-1/2 N.	71-1/2 E.	Hindu Kush. h about 100 km.
11	07 22 30**			Central Kamchatka.
11	08 33 19*	40-1/2 N.	143 E.	Near north coast of Honshu, Japan. h about 60 km.
11	11 12 11**			Kermadec Islands region.
11	12 23 49**			Fiji Islands region.
12	02 33 00**			Northern Chile.
12	08 58 53*	4-1/2 N.	126 E.	Near south coast of Mindanao Island, Philippine Islands. Felt. h about 60 km.
12	09 29 03*	36 N.	140-1/2 E.	Near east coast of Honshu, Japan. Felt at Tokyo. h about 150 km.
12	19 41 20*	43-1/2 N.	127-1/2 W.	Off coast of Oregon.
13	08 26 00**			Kermadec Islands.
13	13 37 24*	0	123-1/2 E.	Northern Celebes.
14	10 51 44*	22 N.	92-1/2 E.	Pakistan-Burma border. Felt at Chittagong and Comilla, East Pakistan.
14	12 22 15*	51-1/2 N.	178 E.	Rat Islands, Aleutian Islands.

Date 1955	Origin Time G. C. T.	Lat.	Long.	Region, Focal Depth, and Remarks
Dec.	h m s	° '	° '	
14	12 52 03**			Near coast of Colombia.
14	13 04 20**			Marianas Islands region.
14	20 01 05*	30 S.	69 W.	Mendoza Province, Argentina.
15	01 19 00**			Easter Island region.
15	13 58 32**			Bonin Islands region.
15	19 02 43*	3-1/2 S.	149 E.	Bismarck Sea.
17	00 37 53**			About 100 miles northwest of Sitka, Alaska.
17	05 17 19**			Imperial County, California foreshock. Felt. Mag. 4-1/2.
17	06 07 29	32.9 N.	115.5 W.	Imperial county, California. Minor damage at Brawley and El Centro. Mag. 5.4.
17	06 52 03**			Imperial County, California aftershock. Mag. 4-1/2.
17	08 06 42*	33-1/2 N.	49 E.	Western Iran.
17	08 16 37*	37 N.	70-1/2 E.	Hindu Kush. h about 200 km.
18	05 33 10*	36-1/2 N.	139-1/2 E.	Central Honshu, Japan. Felt at Tokyo. h about 60 km.
18	06 27 45*	35 N.	134-1/2 E.	Southern Honshu, Japan.
18	10 07 04**			Near northeast coast of New Guinea. h about 200 km.
18	21 57 30*	30 N.	90-1/2 E.	Eastern Tibet.
18	22 37 45*	30 N.	90 E.	Do.
19	03 13 46*	8-1/2 N.	127 E.	Near east coast of Mindanao, Philippine Islands.
19	13 55 12**			Central Kamchatka.
20	13 41 47**			Ecuador. h about 200 km.
20	13 50 46*	14-1/2 S.	167 E.	New Hebrides Islands. h about 100 km.
21	03 03 32**			Central Kamchatka.
21	11 58 30**			Mona Passage.
21	19 54 54*	44 N.	40 E.	Southern Russia.
22	06 20 48**			Fiji Islands. h about 600 km.
22	08 30 43*	40 N.	145 E.	Off east coast of Honshu, Japan.
22	10 09 10**			Galapagos Islands.
22	10 09 37*	18 S.	176 W.	Tonga Islands region. h about 150 km.
22	12 05 10*	39 N.	118-1/2 W.	Near Fallon, Nevada.
22	20 29 43*	23-1/2 N.	141-1/2 E.	Volcano Islands.
23	23 09 45**			Fiji Islands.
23	23 24 10**			Northern Kurile Islands.
24	03 34 40*	8-1/2 N.	85 W.	Off south coast of Costa Rica.
24	08 21 03**			Tonga Islands region. h about 100 km.
25	10 38 49**			Near southeast coast of Kamchatka.
26	09 08 43*	30-1/2 N.	130 E.	Off south coast of Kyushu, Japan.

Date 1955	Origin Time G. C. T.	Lat.	Long.	Region, Focal Depth, and Remarks
Dec.	h m s	° '	° '	
27	02 27 54*	26 S.	177 W.	Kermadec Islands region. h about 200 km. Felt on Raoul Island.
27	08 47 15*	14 N.	145 E.	Marianas Islands. h about 100 km.
27	11 49 50**			Fiji Islands region.
27	17 20 42*	32 S.	180	Kermadec Islands. h about 400 km.
27	18 30 20**			Northern Chile.
29	04 53 43*	44 N.	148 E.	Kurile Islands.
29	08 25 33*	30 N.	90-1/2 E.	Eastern Tibet.
29	16 04 45*	59-1/2 N.	154 W.	Southern Alaska. h about 100 km.
30	06 57 51*	1/2 N.	126 E.	Molucca Passage.
30	09 26 13**			Fiji Islands region. h about 600 km.
30	12 06 12*	6 S.	108 E.	Near north coast of Java.
31	05 00 06*	18 S.	69-1/2 W.	Peru-Chile border.
31	21 14 11*	42 N.	142 E.	Near south coast of Hokkaido, Japan.

Date and Station		Phase	(GCT) h m s
Dec. 1			
COL		eP	04 40 50
EUR		iP	04 44 46
Dec. 1			
COL		eP	07 31 20
Dec. 1			
EUR		eP	07 46 28
Dec. 1			
COL		iP	08 50 33
		ipP	51 00
EUR		eP	08 51 37
		e	51 59
Dec. 1			
BC		eP	10 26 06
		i	26 22
BOZ		eP	10 27 25
		eL	29 26
BUT		eP	10 27 25
		e(S)	29 04
		iL	29 22
EUR		iP	10 25 28
HH		e(P)	10 27 19
		iL	29 57
SLC		eP	10 26 19
		e(S)	27 24
		eL	27 35
TUC		e(P)	10 27 20
		i	27 52
		e	30 13
Dec. 1			
EUR		iP	11 09 32
HH		e(P)	11 14 01
SLC		eP	11 10 24
		eL	11 52
TUC		e(P)	11 11 57
Dec. 1			
EUR		iP	15 31 47
SLC		e(P)	15 32 05
Dec. 1			
EUR		e(P)	19 06 12
Dec. 1			
COL		eP	21 51 43
Dec. 1			
EUR		eP	22 05 13
Dec. 1			
BC		eP	23 20 31
BC		e	23 20 50
		i	21 08
		i	21 52
EUR		eP	23 21 21
TUC		eP	23 20 41
Dec. 1			
COL		eP	23 47 27
Dec. 2			
COL		eP	00 29 03
HH		eP	00 35 50
Dec. 2			
COL		iP	01 04 33
Dec. 2			
COL		eP	04 24 06
Dec. 2			
BOZ		eP	04 58 50
EUR		eP	04 58 21
HH		eP	04 58 31
Dec. 2			
COL		iP	10 34 47
Dec. 2			
HH		e(P)	12 01 30
Dec. 2			
EUR		eP	12 34 14
Dec. 2			
HH		iP	13 38 27
Dec. 2			
HH		iP	16 08 22
		i(S)	08 45
		iL	08 48
Dec. 2			
[illegible]		e(P)	16 31 30
COL		eP	16 27 07
EUR		iP	16 31 05
		e	32 09
HH		eP	16 30 26
		e	31 48
Dec. 2			
BOZ		e(P)	16 50 21
Dec. 2			
BOZ		e(P)	20 08 11
Dec. 2			
HH		i(P)	23 37 41
Dec. 3			
EUR		eP	03 03 32
Dec. 3			
COL		iP	03 25 49
HH		e(P)	03 27 57
Dec. 3			
EUR		iP	03 31 12
		i(S)	31 39
		eL	32 15
Dec. 3			
EUR		eP	05 37 28
Dec. 3			
BOZ		eP	06 07 41
Dec. 3			
BOZ		e(P)	06 22 54
HH		e(P)	06 24 13
Dec. 3			
COL		e(P)	07 48 46
Dec. 3			
COL		eP	11 43 33
EUR		iP	11 47 30
HH		eP	11 46 54
Dec. 3			
EUR		eP	13 26 11
Dec. 3			
BOZ		eP	14 40 04
COL		iP	14 37 16
EUR		eP	14 40 09
HH		iP	14 39 46
Dec. 3			
COL		eP	17 14 01
Dec. 3			
COL		iP	18 00 22
		epP	02 15
Dec. 3			
COL		iP	18 25 36
Dec. 3			
COL		iP	18 35 29
		ipP	36 07
Dec. 3			
EUR		eP	19 32 45
Dec. 3			
EUR		eP	21 20 30
Dec. 3			
HH		i(P)	22 07 04
Dec. 3			
EUR		eP	22 16 10
Dec. 3			
COL		eP	22 32 20
Dec. 4			
EUR		eP	00 01 43
Dec. 4			
BOZ		eP	01 16 14
BUT		eP	01 16 12
COLU		eP	01 16 03
EUR		e(P)	01 16 18
		i	16 43
HH		iP	01 16 06
Dec. 4			
COL		eP	01 57 45
EUR		eP	01 57 11
HH		e(P)	01 57 42
Dec. 4			
HH		e(P)	02 00 54
Dec. 4			
BC		eP	02 14 50
COL		eP	02 15 29
		iPP	19 49
EUR		eP	02 14 56
		e(PP)	19 39
TUC		eP	02 14 50
		e	15 09
		e	31 55
Dec. 4			
HH		eP	02 31 30
Dec. 4			
EUR		eP	03 38 34
		e	38 48
Dec. 4			
EUR		eP	05 19 26
Dec. 4			
EUR		eP	05 43 35
Dec. 4			
COL		eP	06 12 18
EUR		eP	06 15 47
Dec. 4			
EUR		eP	08 04 38
Dec. 4			
EUR		eP	13 19 41
Dec. 4			
EUR		e(P)	13 30 17

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Date and Station		Phase (GCT)
		h m s
Dec. 4		
EUR	eP	13 54 35
Dec. 4		
COL	iP	14 14 22
EUR	e(PP)	14 19 46
HH	eP	14 15 39
Dec. 4		
EUR	eP	15 22 50
Dec. 4		
EUR	eP	16 07 04
Dec. 4		
EUR	eP	17 00 21
HH	e(P)	17 01 23
Dec. 4		
COL	eP	17 30 24
Dec. 4		
COL	iP	18 00 11
Dec. 4		
BOZ	eP	19 33 18
COL	eP	19 35 11
EUR	eP	19 33 43
TUC	e(P)	19 33 20
Dec. 4		
EUR	eP	20 06 24
Dec. 4		
BUT	eP	21 35 31
Dec. 5		
HH	e(P)	00 27 53
Dec. 5		
EUR	eP	02 41 46
Dec. 5		
COL	eP	03 47 09
EUR	iP	03 51 07
HH	e(P)	03 48 20
	e	48 53
Dec. 5		
COL	eP	05 05 03
Dec. 5		
COL	e(P)	07 29 28
Dec. 5		
COL	iP	07 39 10
Dec. 5		
EUR	eP	09 21 04

Date and Station		Phase (GCT)
		h m s
Dec. 5		
TUC	e(P)	12 09 48
Dec. 5		
COL	iP	12 18 39
Dec. 5		
EUR	eP	12 37 05
	i	37 31
Dec. 5		
SLC	eP	13 19 27
Dec. 5		
COL	eP	13 40 26
EUR	eP	13 43 21
HH	eP	13 42 55
Dec. 5		
BC	iP	14 38 14
	epP	38 52
BOZ	eP	14 38 43
	epP	39 14
EUR	iP	14 38 32
	ipP	39 04
HH	iP	14 39 01
	ipP	39 31
	e	40 36
SLC	eP	14 38 24
SJ	eP	14 34 24
Dec. 5		
COL	eP	14 56 53
Dec. 5		
COL	eP	16 13 50
Dec. 5		
COL	iP	17 03 05
EUR	e(P)	17 06 55
Dec. 5		
COL	eP	20 25 23
EUR	eP	20 27 52
HH	iP	20 27 32
Dec. 5		
SLC	eP	19 48 45
Dec. 5		
EUR	eP	21 54 34
	e	55 06
Dec. 5		
TUC	eP	22 48 44
Dec. 6		
EUR	eP	01 03 03

Date and Station		Phase (GCT)
		h m s
EUR	e	01 03 28
SJ	iP	00 56 58
TUC	eP	01 02 07
Dec. 6		
EUR	eP	03 08 20
Dec. 6		
HH	e(P)	03 22 35
	i	22 52
	e	24 08
	iL	24 21
Dec. 6		
COL	eP	04 39 15
Dec. 6		
BC	eP	04 42 16
	iP	42 17D
	e(PcP)	43 00
BOZ	eP	04 42 47C
	e	43 50
BUT	eP	04 42 52C
	i	44 48
	e(PP)	46 30
COL	e(P)	04 45 02
COLU	iP	04 40 35D
	iS	48 42
EUR	iP	04 42 33C
HH	eP	04 43 05C
	eS	53 06
PHIL	eS	04 49 17
	i	50 51
	iScS	51 10
	eSS	53 54
	eL	56 35
SLC	eP	04 42 27C
	e(S)	51 50
	eSS	56 36
	eL	05 03 04
SJ	iP	04 38 25C
	ePP	40 06
	ePcP	40 37
	eS	44 14
	iS	44 17
	eL	47 28
TUC	iP	04 41 43D
	e(PP)	44 31
	eS	50 26
	e	51 36
	eL	58 06
WASH	iP	04 41 00C
	eL	05 03 11

Date and Station		Phase (GCT)
		h m s
Dec. 6		
EUR	eP	05 26 20
HH	eP	05 26 11
Dec. 6		
COL	iP	06 12 08
EUR	eP	06 13 05
	e	13 29
Dec. 6		
TUC	e(P)	06 29 55
Dec. 6		
COL	i(P)	07 39 16
EUR	eP	07 45 36
Dec. 6		
HH	e(P)	08 16 00
Dec. 6		
COL	iP	08 40 12
	epP	40 38
EUR	eP	08 41 09
Dec. 6		
EUR	eP	09 13 21
Dec. 6		
BC	e(P)	11 00 52
	e	05 28
EUR	eP	11 00 31
	e	00 55
	e	02 09
HH	iP	11 00 00
	i	00 11
	e	01 55
TUC	eP	11 01 30
Dec. 6		
COL	eP	11 16 46
Dec. 6		
COL	iP	12 32 06
Dec. 6		
COL	iP	12 41 05
Dec. 6		
COL	eP	14 50 12
	e	50 43
Dec. 6		
COL	iP	15 07 21
Dec. 6		
BC	eP	15 28 16
COL	iP	15 23 55
EUR	eP	15 27 51

Date and Station		Phase	(GCT) h m s
SLC		eP	15 28 01
Dec. 6			
COL		iP	15 38 30
EUR		e(P)	15 38 49
HH		e(P)	15 39 07
Dec. 6			
COL		eP	15 45 49
		epP	46 22
Dec. 6			
COL		eP	17 17 34
Dec. 6			
COL		eP	17 44 51
Dec. 6			
COL		eP	17 53 20
Dec. 6			
COL		eP	20 35 39
Dec. 6			
HH		e(P)	23 15 59
Dec. 7			
EUR		eP	02 07 29
Dec. 7			
BOZ		eP	02 49 04
Dec. 7			
EUR		eP	03 17 04
Dec. 7			
HH		e(P)	05 12 34
Dec. 7			
BC		eP	05 55 37
COL		eP	05 51 16
EUR		iP	05 55 18
HH		e(P)	05 54 33
Dec. 7			
EUR		eP	08 19 34
Dec. 7			
HH		eP	14 30 07
Dec. 7			
BC		eP	14 38 12
		e	38 26
BOZ		eP	14 38 53
BUT		eP	14 38 49
COL		iP	14 38 49
EUR		iP	14 38 19
HH		iP	14 38 51
SLC		eP	14 38 38
TUC		iP	14 38 18
Dec. 7			
BC		eP	15 15 49D
		e	16 00
BOZ		eP	15 15 37D
		i	15 50
		iS	25 47
		i	26 14
		ePPS	27 15
		eSS	31 39
		eSSS	35 11
		eL	37 39
BUT		eP	15 15 30D
		iP	15 31
		iS	25 36
		e(ScS)	26 11
		e	27 24
		e(SS)	30 44
		e(SSS)	33 47
		eL	36 26
COL		iP	15 13 07D
		i	13 20
HONO		e(P)	15 12 57
		eS	20 21
		e(ScS)	22 32
		eL	25 15
T_L = 16 sec. $A_{max.}$ = 5mm			
HH		iP	15 15 20C
		eS	25 15
		ePKKP	33 45
		e(P'P')	42 16
PHIL		eS	15 29 07
		ePPS	31 44
		eSS	36 39
		e(SSS)	41 30
		eL	47 15
SLC		eP	15 15 48C
		i	16 23
		eS	26 12
		eSS	31 38
		eL	37 56
SJ		eP'	15 22 20
TUC		eP	15 16 20
		i(PP)	20 53
		iS	26 42
UK		e	15 38 35
		eL	43 36
WASH		ePP	15 21 44D
Dec. 7			
BUT		eP	15 36 13
COL		eP	15 33 51
EUR		eP	15 36 19
HH		eP	15 36 00
Dec. 7			
BC		eP	16 22 56
		epP	23 42
BOZ		e(P)	16 22 50
COL		iP	16 22 00
EUR		iP	16 21 30
		ipP	22 15
HH		iP	16 22 02
		epP	22 49
Dec. 7			
EUR		eP	16 41 04
Dec. 7			
HH		eP	17 34 37
Dec. 7			
EUR		eP	17 58 29
Dec. 7			
EUR		eP	18 33 22
Dec. 7			
EUR		eP	19 02 02
HH		e(P)	19 01 39
Dec. 7			
EUR		eP	19 43 18
HH		iP	19 43 03
Dec. 7			
EUR		eP	19 57 33
Dec. 7			
EUR		eP	22 02 04
Dec. 7			
BC		eP	23 07 21
COL		iP	23 04 07
EUR		iP	23 06 38
HH		iP	23 06 20
Dec. 7			
HH		e(P)	23 43 40
Dec. 8			
COL		iP	00 45 20
Dec. 8			
HH		eP'	02 27 14
COL		ePP	02 29 44
EUR		eP'	02 27 24
		e	27 33
		iPKS	30 46
Dec. 3			
COL		iP	02 36 35
Dec. 8			
COL		eP	03 17 38
Dec. 8			
COL		iP	03 30 03
		i	30 37
Dec. 8			
COL		iP	03 42 15
Dec. 8			
COL		iP	03 44 19
Dec. 8			
COL		eP	03 48 35
Dec. 8			
COL		eP	03 51 09
Dec. 8			
COL		iP	03 56 25
Dec. 8			
EUR		eP	04 39 07
Dec. 8			
EUR		eP	05 07 08
Dec. 8			
EUR		eP	05 54 28
Dec. 8			
COL		eP	09 35 02
EUR		eP	09 38 59
Dec. 8			
EUR		eP	10 44 26
		e	45 54
Dec. 8			
COL		eP	12 20 43
HH		iP	12 22 56
Dec. 8			
EUR		eP	13 47 13
Dec. 8			
COL		eP	16 46 46
Dec. 8			
EUR		eP	16 59 03
Dec. 8			
BC		iP	17 48 33
BOZ		eP	17 48 44
COL		eP	17 47 23
		iP	47 25
		ipP	49 10
EUR		iP	17 48 28
		epP	50 10

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Date and Station		Phase (GCT) h m s
HH	iP	17 48 36
	epP	50 16
Dec. 8 SJ	eP'	17 54 37
	epP'	56 36
Dec. 8 EUR	eP	19 54 56
Dec. 8 EUR	eP	21 57 53
Dec. 8 BOZ	eP	22 10 44
COL	eP	22 08 01
EUR	eP	22 11 06
HH	iP	22 10 27
Dec. 8 SLC	e(P)	23 48 49
Dec. 8 HH	e(P)	23 58 08
Dec. 9 EUR	eP	00 34 29
SJ	iP	00 30 20
Dec. 9 COL	eP	04 11 55
	epP	12 19
Dec. 9 SLC	eP	05 33 08
Dec. 9 EUR	eP	06 38 39
Dec. 9 EUR	eP	06 45 13
	e	47 13
Dec. 9 EUR	eP	07 34 24
HH	e(P)	07 34 09
Dec. 9 BC	eP	09 11 00
EUR	eP	09 11 07
	e	11 26
TUC	eP	09 11 03
Dec. 9 EUR	eP	10 13 02
Dec. 9 HH	eP	10 32 15
Dec. 9 BUT	eP	10 53 14
EUR	eP	10 53 10
HH	e(P)	10 53 03
Dec. 9 EUR	eP	11 06 28
Dec. 9 EUR	eP	13 20 09
Dec. 9 SLC	e(P)	13 47 58
Dec. 9 EUR	eP	16 49 39
Dec. 9 COL	eP	17 33 32
EUR	eP	17 37 26
Dec. 9 COL	eP	19 07 14
	i	07 31
Dec. 9 EUR	e(P)	19 48 46
HH	e(P)	19 49 19
Dec. 9 BC	eP	21 29 13
BOZ	e(P)	21 31 46
COL	iP	21 26 28
EUR	iP	21 29 00
HH	eP	21 28 43
Dec. 9 EUR	e(P)	21 41 45
	e	41 51
TUC	e(P)	21 46 47
Dec. 9 EUR	eP	22 09 59
	i	10 33
Dec. 9 COL	eP	22 28 55
Dec. 9 EUR	eP	22 51 42
Dec. 10 EUR	eP	00 58 22
Dec. 10 EUR	e(P)	04 18 05
	e	18 09
	e	19 09
HH	eP	04 15 53
Dec. 10 COL	iP	04 31 42
SJ	iP	04 28 41
Dec. 10 EUR	eP	07 03 50
Dec. 10 EUR	eP	11 40 19
HH	e(P)	11 40 01
Dec. 10 COL	iP	12 40 30
	i	41 54
Dec. 10 EUR	eP	14 09 09
Dec. 10 EUR	eP	14 26 26
Dec. 10 EUR	eP	17 34 45
Dec. 10 COL	e(P)	18 49 28
	e	50 04
EUR	eP	18 53 01
Dec. 10 COL	eP	19 29 06
EUR	eP	19 23 23
	e	23 57
Dec. 10 EUR	eP	19 46 05
Dec. 10 BC	eP	20 34 15
BOZ	eP	20 33 27
BUT	eP	20 33 20
COL	iP	20 29 32
EUR	eP	20 33 49
HH	eP	20 33 00
SLC	eP	20 33 54
TUC	eP	20 34 48
Dec. 10 EUR	eP	21 11 41
Dec. 11 COL	eP	00 02 50
EUR	eP	00 03 24
Dec. 11 SJ	iP	02 46 13
Dec. 11 COL	iP	03 33 45
	e	34 12
Dec. 11 BC	iP	03 40 07
COL	eP	03 40 47
EUR	iP	03 40 14
TUC	eP	03 40 09
	e	48 18
Dec. 11 BUT	eP	03 49 11
EUR	eP	03 49 07
HH	eP	03 48 58
SJ	iP	03 44 54
	i	45 21
Dec. 11 EUR	eP	04 38 42
Dec. 11 COL	eP	05 14 21
Dec. 11 COL	iP	05 54 02
	e(PcP)	54 10
	epP	54 32
	esP	54 41
	e	56 05
	iPP	56 50
EUR	eP	05 56 32
Dec. 11 BC	eP	07 32 29
COL	iP	07 28 08
EUR	iP	07 32 06
	ePcP	33 08
HH	eP	07 31 26
SLC	eP	07 32 14
TUC	e(P)	07 33 03
Dec. 11 BC	eP	08 45 01
COL	eP	08 41 41
EUR	eP	08 44 48
	ipP	45 02
HH	eP	08 44 19
Dec. 11 EUR	eP	09 00 52
	e	02 50
TUC	eP	08 59 42
Dec. 11 EUR	eP	10 09 12

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Date and Station		Phase	(GCT) h m s
Dec. 11			
BC		e(P)	11 24 59
COL		eP	11 25 28
EUR		iP	11 25 04
SLC		eP	11 25 21
TUC		iP	11 25 04
Dec. 11			
COL		eP	12 36 16
EUR		e(P)	12 36 00
TUC		e(P)	12 36 03
Dec. 11			
EUR		e(P)	13 37 25
TUC		eP	13 37 26
Dec. 11			
EUR		eP	15 33 44
Dec. 11			
EUR		eP	20 05 22
Dec. 11			
EUR		eP	21 36 14
Dec. 12			
COL		iP	01 05 01
Dec. 12			
COL		iP	01 27 38
EUR		eP	01 27 09
		e	29 52
Dec. 12			
BC		i(P)	02 44 41
		e	44 49
BOZ		eP	02 44 42
BUT		iP	02 44 45
		ipP	45 00
COL		eP	02 46 54
COLU		eP	02 42 27
EUR		iP	02 44 28
HH		iP	02 45 00
		e	46 11
SLC		eP	02 44 22
SJ		iP	02 40 17
TUC		eP	02 43 38
Dec. 12			
COL		eP	02 50 03

Date and Station		Phase	(GCT) h m s
Dec. 12			
BC		eP	03 12 55
Dec. 12			
BC		ePP	09 17 56
BOZ		eP'	09 17 23
COL		iP	09 11 20
		i	11 41
EUR		eP'	09 17 21
HONO		eP	09 10 38
HH		eP	09 13 03
SLC		eP'	09 17 35
SJ		iP'	09 19 05
TUC		eP'	09 17 35
		ePKKP	28 18
Dec. 12			
BC		eP	09 41 29
BUT		eP	09 40 31
COL		iP	09 37 44
EUR		iP	09 40 43
HH		i(P)	09 40 20
TUC		eP	09 41 24
Dec. 12			
COL		iP	09 39 50
Dec. 12			
COL		iP	12 10 12
		ipP	10 32
SLC		eP	12 09 58
Dec. 12			
EUR		iP	12 30 45
Dec. 12			
EUR		e(P)	12 47 21
HH		e(P)	12 53 36
Dec. 12			
COL		eP	15 06 47
Dec. 12			
COL		eP	16 05 06
Dec. 12			
BOZ		eP	17 35 27
Dec. 12			
BC		eP	18 17 59
		e	18 56
EUR		eP	18 17 08
		iP	17 10

Date and Station		Phase	(GCT) h m s
HH		e(P)	18 21 39
SLC		eP	18 19 23
TUC		eP	18 21 44
		e	22 18
Dec. 12			
BC		eP	19 44 15
BUT		eP	19 43 53
COL		iP	19 46 42
EUR		eP	19 43 35
		iP	43 37
HH		iP	19 43 50
		eL	51 05
SLC		e(P)	19 44 08
TUC		eP	19 45 27
		e	45 46
Dec. 12			
COL		eP	20 44 32
Dec. 13			
EUR		eP	03 38 01
Dec. 13			
COL		eP	04 57 02
Dec. 13			
EUR		eP	08 39 11
		ePP	42 29
TUC		eP	08 39 07
Dec. 13			
EUR		eP	10 24 01
		i	24 12
Dec. 13			
COL		eP	13 50 24
Dec. 13			
EUR		e(P)	14 32 54
Dec. 13			
BOZ		eP	15 17 12
BUT		eP	15 17 36
EUR		eP	15 16 20
HH		eP	15 17 06
		eL	19 35
SLC		e(P)	15 17 01
		eP	17 08
		eS	17 34
		eL	17 44
Dec. 13			
EUR		eP	15 28 01

Date and Station		Phase	(GCT) h m s
Dec. 13			
TUC		eP	19 05 15
		i	05 18
Dec. 13			
BC		eP	20 14 03
COL		iP	20 09 41
EUR		eP	20 13 39
		e	14 42
HH		eP	20 13 00
SLC		eP	20 13 49
Dec. 13			
EUR		eP	23 12 38
Dec. 14			
SLC		eP	01 29 23
		e	34 37
Dec. 14			
COL		eP	07 41 15
EUR		eP	07 49 31
Dec. 14			
BUT		eP	08 49 33
Dec. 14			
BC		eP'	11 10 24
		epP'	10 57
		ePP	11 53
		e	12 33
BOZ		e(P)	11 09 28
BUT		eP'	11 09 47
		ePP	10 30
		ipPP	10 45
COL		iP	11 04 07
		ipP	04 31
		eS	14 14
		eSKS	14 22
		eL	35 32
EUR		eP'	11 09 54
		ePKKP	21 22
HH		eP	11 06 02
		eP'	09 52
		iPP	10 26
		ePKKP	21 51
SLC		ePP	11 11 21
SJ		e(PP)	11 14 18
TUC		eP'	11 10 43
		eL	57 09
Dec. 14			
BC		eP	12 31 08
		e	31 17
		ePPP	34 19

Date and Station		Phase (GCT)
		h m s
BC	e	12 34 29
BOZ	e(P)	12 30 40
COL	iP	12 27 15
	i	27 23
	iPcP	30 25
	i	30 33
	eL	33 44
EUR	eP	12 35 56
HH	eP	12 30 14
	ePcP	32 14
	i	33 26
SJ	iP	12 35 21
TUC	eP	12 31 45
	i	31 54
	i(PPP)	34 54
Dec. 14		
BH	iP	12 52 58
	iS	53 34
EUR	e(P)	13 00 53
HH	e(P)	13 01 28
SJ	eP	12 56 05
	i	56 13
TUC	eP	12 59 53
Dec. 14		
BOZ	eP	13 17 20
BUT	eP	13 17 13
COL	eP	13 15 11
EUR	eP	13 17 11
	e	17 37
HH	eP	13 17 04
	e	17 20
Dec. 14		
SLC	eP	14 14 58
Dec. 14		
HH	e(P)	16 40 33
Dec. 14		
BC	eP	17 59 00
COL	eP	17 54 39
EUR	iP	17 58 38
	e	59 40
HH	eP	17 57 59
SLC	eP	17 58 48
Dec. 14		
EUR	eP	19 55 01

Date and Station		Phase (GCT)
		h m s
Dec. 14		
BC	eP	20 13 06
	i	13 17
BUT	eP	20 13 47
EUR	eP	20 13 24
HH	eP	20 13 55
SLC	eP	20 13 24
SJ	eP	20 09 48
	e	09 52
TUC	e(P)	20 12 49
Dec. 14		
EUR	eP	20 53 59
HH	e(P)	20 55 17
TUC	eP	20 52 12
Dec. 15		
BC	iP	01 28 50
	ePP	30 37
BUT	eP	01 29 57
COL	iP	01 31 59
EUR	iP	01 29 14
HH	iP	01 30 11
TUC	eP	01 28 24
	eL	45 16
Dec. 15		
BC	e(P)	01 34 13
BUT	e(P)	01 34 43
COL	i(P)	01 30 10
	i	30 19
EUR	i(P)	01 33 41
HH	i(P)	01 34 42
TUC	e(P)	01 34 42
Dec. 15		
COL	eP	01 45 02
Dec. 15		
EUR	eP	07 30 39
Dec. 15		
HH	e(P)	07 57 13
Dec. 15		
BC	e(P)	09 13 52
	e	14 18
COL	eP	09 15 48

Date and Station		Phase (GCT)
		h m s
EUR	eP	09 14 23
HH	e(P)	09 14 02
SLC	eP	09 14 01
SJ	e(P)	09 08 25
TUC	eP	09 13 59
Dec. 15		
HH	e(P)	09 46 35
Dec. 15		
BC	eP	10 12 10
EUR	eP	10 12 12
SLC	e(P)	10 11 51
TUC	eP	10 11 51
Dec. 15		
HH	e(P)	10 23 00
Dec. 15		
EUR	eP	10 41 07
HH	e(P)	10 40 10
Dec. 15		
COL	iP	12 42 49
Dec. 15		
BC	eP	14 11 07
COL	iP	14 08 16
EUR	eP	14 10 54
HH	iP	14 10 35
Dec. 15		
COL	eP	16 47 17
SLC	e(P)	16 45 33
SJ	eP	16 39 49
Dec. 15		
EUR	eP	17 14 53
Dec. 15		
EUR	eP	17 45 51
	i	45 56
Dec. 15		
BC	eP	19 14 45
COL	eP	19 15 05
EUR	eP	19 16 18
HH	eP	19 16 21
	e	16 49
Dec. 15		
SLC	eP	22 17 47

Date and Station		Phase (GCT)
		h m s
Dec. 16		
HH	e(P)	02 30 08
Dec. 16		
HH	e(P)	03 37 54
Dec. 16		
BC	eP	05 35 33
EUR	eP	05 36 09
HH	e(P)	05 35 53
	e	36 14
SLC	eP	05 36 08
TUC	eP	05 34 16
Dec. 16		
BC	eP	07 18 50
BOZ	eP	07 18 08
COL	eP	07 14 28
EUR	iP	07 18 25
HH	eP	07 17 47
	e	19 06
TUC	eP	07 19 23
Dec. 16		
EUR	eP	07 36 15
Dec. 16		
EUR	e(P)	10 28 29
HH	eP	10 29 02
SJ	i(P)	10 24 20
Dec. 16		
EUR	eP	11 29 36
Dec. 16		
HH	e(P)	13 53 34
Dec. 16		
BC	eP	14 44 44
EUR	eP	14 44 33
	e	46 04
Dec. 16		
SLC	eP	17 18 34
Dec. 16		
EUR	e(P)	20 27 35
Dec. 17		
EUR	iP	00 10 15
Dec. 17		
BC	eP	00 43 35
BOZ	eP	00 42 33

Date and Station		Phase (GCT) h m s
BUT	eP	00 42 26
COL	iP	00 39 58
EUR	iP	00 43 02
HH	eP	00 41 56
	e	47 10
SLC	eP	00 43 09
SIT	eP	00 38 15
	eS	38 32
	iL	38 35
Dec. 17		
EUR	eP	03 45 02
	i	45 33
	eS	46 10
	eL	47 04
HH	e(P)	03 47 10
TUC	eP	03 44 25
	i	44 37
	e(S)	45 40
	eL	46 25
Dec. 17		
BC	i(P)	05 18 17
BOZ	eP	05 20 39
BUT	eP	05 20 35
	eL	24 25
EUR	eP	05 18 59
	i	19 29
	e(S)	20 13
	iL	20 46
HH	eP	05 21 00
	eL	25 32
SLC	eP	05 19 26
	iL	21 23
TUC	eP	05 18 21
	i	18 34
	iS	19 34
	eL	21 07
Dec. 17		
BC	iP	06 08 18
	i	08 27
BOZ	eP	06 10 42
	i	11 10
	eS	13 34
	eL	14 22
BUT	eP	06 10 43
	e	11 39
	e(S)	14 01
	eL	14 35
CHI	iP	06 12 41
	eL	19 31
	iL	20 07

Date and Station		Phase (GCT) h m s
COL	iP	06 14 46
EUR	iP	06 09 07
HH	iP	06 11 10
	eL	14 35
RC	eP	06 10 49
	e(S)	13 56
	eL	14 40
	iL	15 02
SLC	iP	06 09 32
	i	10 23
	iL	11 32
SJ	iP	06 15 57
SIT	eS	06 18 10
	eL	20 18
TUC	iP	06 08 29
	i	08 53
	e	09 19
	i	09 34
	eL	10 00
Dec. 17		
BC	eP	06 52 51
	i	53 00
BOZ	e(P)	06 55 17
	eL	59 11
BUT	eP	06 55 17
	eL	59 07
EUR	eP	06 53 40
	i	54 16
	eS	55 09
	eL	56 38
HH	eP	06 55 48
	eL	59 53
RC	e	06 57 14
	eL	59 21
SLC	eP	06 54 08
	e(S)	56 13
	eL	56 36
TUC	eP	06 53 05
	i	53 21
	i	54 10
	i	54 20
	eL	55 42
Dec. 17		
COL	iP	08 18 59
HH	e(P)	08 20 21
Dec. 17		
COL	iP	08 28 00
	ipP	28 49
	isP	29 10

Date and Station		Phase (GCT) h m s
Dec. 17		
COL	iP	14 20 05
Dec. 17		
COL	eP	15 24 50
Dec. 17		
BC	eP	18 01 07
	e	01 18
	eS	02 06
	eL	03 03
EUR	eP	18 02 06
	i	02 30
	e(S)	03 36
	eL	04 03
SLC	eP	18 04 46
TUC	eP	18 01 18
	e	01 32
	i(S)	02 13
	eL	03 17
Dec. 17		
BC	eP	18 17 59
BOZ	eP	18 18 37
COL	iP	18 18 34
	i	18 54
EUR	iP	18 18 05
HH	e(P)	18 18 36
SLC	eP	18 18 24
Dec. 17		
BC	eP	19 06 32
	i	06 44
EUR	eP	19 07 22
	e	07 58
	i	09 22
HH	e(P)	19 09 24
	eL	13 58
SLC	eP	19 08 46
TUC	eP	19 06 44
	i	06 52
	iS	07 35
Dec. 17		
EUR	eP	19 17 16
	e	18 55
Dec. 17		
SJ	eP	20 42 15
Dec. 17		
EUR	eP	21 02 04
Dec. 17		
SJ	eP	21 47 57
	i(S)	48 39

Date and Station		Phase (GCT) h m s
SJ	iL	21 48 46
Dec. 17		
HH	e(P)	22 07 51
Dec. 17		
SLC	eP	22 21 26
Dec. 17		
COL	eP	22 41 39
	i	41 46
Dec. 17		
EUR	eP	23 50 07
HH	eP	23 50 01
Dec. 18		
COL	eP	00 11 30
Dec. 18		
EUR	eP	03 28 07
Dec. 18		
BC	e(P)	04 14 03
COL	eP	04 10 54
EUR	iP	04 13 48
HH	eP	04 13 25
TUC	e(P)	04 14 29
Dec. 18		
BC	e(P)	05 45 17
COL	eP	05 42 03
	iP	42 05
EUR	eP	05 45 00
HH	eP	05 44 37
Dec. 18		
BC	eP	06 40 14
BUT	eP	06 39 55
COL	iP	06 37 09
EUR	eP	06 40 01
	e	40 15
HH	iP	06 39 37
	e	39 51
Dec. 18		
BC	eP	07 34 54
COL	eP	07 35 21
EUR	eP	07 34 59
SLC	e(P)	07 35 15
TUC	eP	07 34 58

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Date and Station		Phase (GCT) h m s
Dec. 18		
EUR	e(P)	08 26 32
Dec. 18		
BC	eP	09 12 50
EUR	e(P)	09 12 46
	e	15 37
HH	e(P)	09 14 42
TUC	eP	09 13 02
Dec. 18		
COL	iP	10 19 22
EUR	eP	10 20 26
Dec. 18		
EUR	eP	12 29 54
Dec. 18		
COL	eP	20 11 45
Dec. 18		
SLC	eP	20 52 28
Dec. 18		
COL	eP	22 09 16
Dec. 18		
COL	eP	22 49 30
Dec. 18		
EUR	eP	23 05 24
Dec. 19		
EUR	eP	00 07 30
	i	07 32
	i(S)	07 53
	eL	08 16
Dec. 19		
BC	ePP	03 32 42
BUT	eP	03 27 55
COL	iP	03 26 01
HONO	eP	03 25 25
HH	eP	03 27 45
	eP'	30 59
EUR	ePP	03 32 19
SJ	eP'	03 33 42
TUC	ePP	03 33 09
Dec. 19		
BOZ	e(P)	03 43 55
EUR	eP	03 43 59
SLC	eP	03 43 49
TUC	e(P)	03 43 28

Date and Station		Phase (GCT) h m s
Dec. 19		
BOZ	eP	03 47 22
Dec. 19		
HH	e(P)	06 11 50
Dec. 19		
TUC	eP	08 43 46
Dec. 19		
EUR	iP	09 51 14
Dec. 19		
HH	iP	10 45 57
	i(S)	46 18
	iL	46 22
Dec. 19		
COL	iP	11 43 37
Dec. 19		
BC	eP	14 05 10
	i	05 11
COL	eP	14 00 50
EUR	iP	14 04 47
HH	eP	14 04 07
SLC	eP	14 04 56
Dec. 19		
SLC	eP	14 32 28
Dec. 20		
SLC	eP	03 14 54
Dec. 20		
EUR	e(P)	04 14 56
SLC	e(P)	04 18 39
Dec. 20		
COL	iP	06 46 21
Dec. 20		
EUR	e(P)	09 51 49
	e	52 02
Dec. 20		
EUR	eP	13 45 07
Dec. 20		
BH	iP	13 44 18
	iS	46 11
BC	iP	13 50 35
	ipP	51 24
BOZ	eP	13 51 55
COL	iP	13 53 56
	ipP	54 46
EUR	iP	13 50 56
	ipP	51 45

Date and Station		Phase (GCT) h m s
HH	eP	13 51 31
	epP	52 18
SLC	e(P)	13 50 46
SJ	iP	13 46 36
	ipP	47 10
TUC	iP	13 49 57
	epP	50 46
Dec. 20		
BC	iP	14 04 08
COL	eP	14 03 21
EUR	eP	14 03 37
	ipP	04 08
TUC	eP	14 04 17
Dec. 20		
HH	e(P)	16 30 57
Dec. 20		
EUR	eP	20 00 28
	e	01 01
Dec. 20		
BC	eP	21 35 59
	i	36 25
EUR	eP	21 34 20
	e	37 58
TUC	eP	21 32 45
	i	33 46
Dec. 20		
COL	iP	23 39 33
Dec. 21		
BC	eP	03 13 29
COL	eP	03 09 07
EUR	iP	03 13 06
HH	e(P)	03 12 25
SLC	eP	03 13 15
Dec. 21		
COL	eP	05 58 09
Dec. 21		
BOZ	e(P)	06 02 30
BUT	eP	06 03 09
EUR	eP	06 02 02
HH	e(P)	06 01 53
	e(S)	03 39
	iL	03 50
Dec. 21		
COL	eP	07 23 57

Date and Station		Phase (GCT) h m s
Dec. 21		
EUR	e(P)	07 47 02
Dec. 21		
BUT	eP	09 06 24
Dec. 21		
BC	eP	12 06 50
	i	06 58
BUT	eP	12 07 05
COLU	eP	12 03 02
EUR	eP	12 07 00
	e	07 09
HH	eP	12 07 09
	e	07 18
SLC	eP	12 06 38
SJ	iP	11 58 58
Dec. 21		
TUC	e(P)	12 21 17
Dec. 21		
BC	iP	15 56 05
	e	56 24
COL	eP	15 52 11
EUR	iP	15 55 41
	e	56 01
HH	eP	15 55 10
Dec. 21		
COL	eP	15 59 44
Dec. 21		
HH	eP	20 07 35
Dec. 21		
HH	iP	21 53 06
Dec. 22		
COL	eP	01 26 34
Dec. 22		
EUR	e(P)	01 50 32
Dec. 22		
COL	eP	03 53 58
Dec. 22		
BC	e(P)	06 32 14
COL	iP	06 32 40
	epP	34 50
EUR	eP	06 32 19
HH	e(P)	06 31 48
TUC	eP	06 32 19

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Date and Station		Phase	(GCT) h m s
Dec. 22			
COL		iP	06 50 35
Dec. 22			
EUR		e(P)	08 32 55
Dec. 22			
BC		iP	08 42 30
BOZ		eP	03 42 09
BUT		eP	08 42 01
COL		iP	08 39 06
EUR		iP	08 42 14
HH		iP	08 41 48
SLC		eP	08 42 24
TUC		eP	08 42 57
Dec. 22			
BC		eP	10 17 08
		i	17 09
COL		iP	10 21 02
EUR		eP	10 17 34
HH		iP	10 18 26
SLC		eP	10 17 30
TUC		eP	10 16 26
Dec. 22			
BC		iP	10 21 29
		epP	22 02
COL		iP	10 22 04
		ipP	22 37
EUR		eP	10 21 35
		epP	22 09
HH		eP	10 22 06
SLC		e(P)	10 21 53
TUC		eP	10 21 34
		epP	22 08
Dec. 22			
BC		eP	12 06 16
		i	06 27
		e(S)	07 13
		eL	07 21
BOZ		e(P)	12 07 23
		e	07 56
		eL	09 43
BUT		e(P)	12 07 46
		eL	09 42
EUR		iP	12 05 46
HH		eP	12 07 38
		eS	09 24
		eL	10 31
SLC		eP	12 06 54
		eS	07 56
		eL	08 08
TUC		eP	12 07 25
		eL	10 14
Dec. 22			
EUR		e(P)	20 26 52
Dec. 22			
COL		eP	20 39 58
EUR		iP	20 42 17
HH		iP	20 42 05
Dec. 22			
HH		e(P)	20 56 08
Dec. 22			
COL		eP	22 11 53
Dec. 22			
EUR		eP	23 37 59
		e	38 23
Dec. 23			
COL		eP	00 30 18
EUR		eP	00 34 16
		i	35 39
Dec. 23			
HH		e(P)	00 40 08
Dec. 23			
HH		i(P)	00 55 04
Dec. 23			
EUR		eP	01 11 30
Dec. 23			
HH		e(P)	01 21 48
Dec. 23			
COL		eP	03 33 01
Dec. 23			
EUR		eP	07 47 16
Dec. 23			
COL		eP	11 14 10
Dec. 23			
COL		iP	12 41 21
Dec. 23			
COL		eP	13 43 52
EUR		e(P)	13 47 26
Dec. 23			
EUR		eP	14 39 45
Dec. 23			
BUT		eP	17 52 29
COL		eP	17 49 49
EUR		e(P)	17 52 37
HH		e(P)	17 52 14
Dec. 23			
BUT		eP	19 53 06
Dec. 23			
HH		eP	20 32 52
Dec. 23			
HH		e(P)	21 08 13
Dec. 23			
BOZ		eP	21 26 50
Dec. 23			
EUR		eP	22 42 43
Dec. 23			
COL		iP	23 22 22
EUR		eP	23 22 00
HH		eP	23 22 29
Dec. 23			
COL		iP	23 30 45
EUR		eP	23 34 21
HH		eP	23 33 48
		i	34 01
Dec. 24			
HH		e(P)	00 04 43
Dec. 24			
COL		eP	03 30 49
EUR		e(P)	03 26 58
HH		e(P)	03 27 46
TUC		e(P)	03 25 49
Dec. 24			
BC		eP	03 42 10
COL		eP	03 46 03
COLU		eP	03 40 14
EUR		eP	03 42 36
		e	47 51
HH		eP	03 43 17
		e	44 51
SJ		eP	03 39 26
TUC		eP	03 41 31
Dec. 24			
SLC		eP	04 38 51
Dec. 24			
COL		eP	04 59 31
HH		e(P)	04 58 23
Dec. 24			
EUR		e(P)	06 52 33
		e	52 42
HH		eP	06 52 28
Dec. 24			
COL		eP	07 20 50
TUC		e(P)	07 20 30
Dec. 24			
COL		eP	08 03 53
Dec. 24			
BC		eP	08 32 50
BOZ		eP	08 33 29
COL		iP	08 33 25
		ipP	33 54
EUR		eP	08 32 55
HH		iP	08 33 27
		epP	33 50
TUC		eP	08 31 55
Dec. 24			
HH		e(P)	08 50 15
Dec. 24			
BC		e(P)	09 46 26
BOZ		eP	09 46 58
BUT		eP	09 47 02
EUR		e(P)	09 46 10
		e	46 44
HH		e(P)	09 47 12
SJ		eP	09 42 39
		e	43 11
Dec. 24			
EUR		e(P)	12 54 39
Dec. 24			
BOZ		eP	13 18 50
EUR		eP	13 19 25
HH		eP	13 18 47
Dec. 24			
HH		eP	15 35 08
		e	35 31

Date and Station		Phase (GCT)
		h m s
Dec. 24		
COL	iP	15 55 55
	e	56 32
EUR	eP	15 55 20
	e	55 31
TUC	e(P)	15 55 17
Dec. 24		
EUR	e(P)	17 38 21
Dec. 24		
EUR	iP	18 01 10
	i(S)	01 31
	eL	01 56
Dec. 24		
COL	iP	18 03 33
EUR	eP	18 07 27
HH	e(P)	18 06 55
Dec. 24		
EUR	iP	18 55 58
SLC	eP	18 56 27
TUC	eP	18 55 56
Dec. 24		
HH	iP	21 45 06
Dec. 24		
EUR	eP	22 14 11
HH	e(P)	22 14 51
TUC	eP	22 14 07
Dec. 25		
SLC	eP	00 10 02
Dec. 25		
BOZ	eP	01 54 48
HH	iP	01 55 29
Dec. 25		
EUR	eP	02 03 53
Dec. 25		
BOZ	e(P)	04 07 22
HH	iP	04 04 59
Dec. 25		
BC	eP	05 10 01
BOZ	eP	05 10 42
BUT	eP	05 10 38
	e	11 00
COL	iP	05 10 38
EUR	eP	05 10 06
HH	eP	05 10 38
SLC	eP	05 09 57
TUC	iP	05 10 07
Dec. 25		
SLC	eP	07 51 10
Dec. 25		
COL	eP	10 44 52
EUR	eP	10 48 36
HH	e(P)	10 48 07
Dec. 25		
COL	iP	12 12 54
Dec. 25		
COL	eP	13 04 16
Dec. 25		
BC	eP	16 01 00
EUR	eP	16 00 37
HH	eP	15 59 57
Dec. 25		
BC	iP	17 28 37
	i	28 44
EUR	iP	17 29 04
HH	eP	17 29 49
SLC	eP	17 28 53
TUC	eP	17 27 53
Dec. 25		
BOZ	eP	18 56 32
HH	eP	18 56 19
Dec. 25		
HH	e(P)	20 56 05
Dec. 25		
EUR	e(P)	23 23 07
	e	23 27
Dec. 26		
COL	iP	01 19 20
Dec. 26		
COL	eP	07 27 41
	e	30 29
Dec. 26		
BC	eP	09 21 45
	i	21 54
BOZ	eP	09 21 26
BUT	eP	09 21 20
COL	iP	09 18 50
	i	19 07
EUR	eP	09 21 31
HH	iP	09 21 09
SLC	eP	09 21 41
TUC	eP	09 22 07
Dec. 26		
BC	eP	17 35 28
BUT	eP	17 34 42
COL	eP	17 30 28
	iP	30 29
	i	31 15
EUR	eP	17 35 04
HH	e(P)	17 34 24
Dec. 26		
HH	eP	18 07 17
Dec. 26		
BC	eP	19 35 33
BOZ	eP	19 36 29
BUT	eP	19 36 31
EUR	iP	19 36 00
HH	e(P)	19 35 12
	eP	36 52
SLC	eP	19 35 55
TUC	eP	19 34 50
Dec. 26		
HH	eP	20 26 34
Dec. 26		
BC	eP	20 39 00
EUR	iP	20 39 02
Dec. 26		
COL	iP	23 21 36
	e	22 07
EUR	eP	23 21 05
Dec. 27		
HONO	eP	00 23 09
	iS	23 18
	iL	23 20
Felt on the east side of Oahu.		
Dec. 27		
BC	iP	02 40 16
	i	40 18
	ipP	41 02
BOZ	eP	02 40 53
BUT	eP	02 40 49
	ipP	41 37
	ePP	44 31
	epPP	45 11
COL	iP	02 40 52
	epP	41 37
	e(sP)	42 14
EUR	iP	02 40 21
	ipP	41 07
	e(PKKP)	58 18
	i	59 09
HH	eP	02 40 51
	ePP	44 35
	epPP	45 14
TUC	iP	02 40 19
	ipP	41 04
	e(PKKP)	58 20
Dec. 27		
BC	eP	03 06 33
	i	06 34
EUR	eP	03 06 22
Dec. 27		
SLC	eP	03 14 14
Dec. 27		
COL	eP	03 47 36
HH	e(P)	03 51 11
Dec. 27		
EUR	eP	06 43 25
Dec. 27		
BC	eP	08 03 12
BOZ	e(P)	08 02 30
EUR	eP	08 02 36
HH	eP	08 02 05
	e	04 27
TUC	e(P)	08 03 36
Dec. 27		
HH	i(P)	08 23 24
Dec. 27		
HH	e(P)	08 55 39
Dec. 27		
BC	eP	09 00 11
	epP	00 33
	isP	00 40
BOZ	eP	09 00 10

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Date and Station		Phase	(GCT) h m s
BUT		eP	09 00 04
		iP	00 05
		ipP	00 24
		ePP	03 33
COL		eP	08 58 12
		e	58 38
		eS	09 07 12
		eSS	11 14
		eL	15 18
EUR		iP	09 00 02
HONO		eP	08 56 36
HH		eP	08 59 55
		ePP	09 03 18
SLC		eP	09 00 16
TUC		eP	09 01 32
		eL	37 16
Dec. 27			
BC		e(P)	10 58 47
		e	58 53
		iL	11 00 14
EUR		e(P)	10 58 56
		e	59 27
SLC		eP	10 58 56
		eL	11 00 19
TUC		eP	10 58 05
		i	58 13
		iS	59 08
		eL	11 00 01
Dec. 27			
COL		iP	12 02 26
EUR		eP	12 01 58
Dec. 27			
EUR		eP	13 05 29
Dec. 27			
EUR		eP	13 10 42
Dec. 27			
COL		iP	13 30 53
SLC		e(P)	13 35 07
Dec. 27			
HH		e(P)	15 43 06
Dec. 27			
BC		eP	16 11 05
		e	11 32
COL		iP	16 07 09
EUR		iP	16 10 44
		i	10 58
HH		iP	16 10 12
		i	10 25
TUC		e(P)	16 11 35
Dec. 27			
BC		iP	17 32 09
		e	32 19
COL		iP	17 33 35
EUR		iP	17 33 15
		ePP	37 02
HONO		eP	17 29 53
HH		eP	17 33 46
		ePP	37 53
TUC		iP	17 33 09
Dec. 27			
COL		iP	18 34 57
		iL	35 22
Dec. 27			
BC		eP	18 41 53
		e	42 11
BUT		eP	18 42 29
		e	42 52
EUR		eP	18 42 12
		e	42 24
HH		iP	18 42 43
		i	42 55
SJ		eP	18 38 09
		i	38 23
TUC		eP	18 41 22
Dec. 27			
TUC		eP	20 39 07
Dec. 27			
EUR		eP	21 45 30
Dec. 27			
EUR		eP	22 16 43
Dec. 28			
EUR		eP	00 52 46
Dec. 28			
EUR		eP	01 00 50
Dec. 28			
EUR		eP	01 35 26
Dec. 28			
COL		iP	01 53 06
Dec. 28			
BC		eP	02 51 40
BOZ		eP	02 52 14
COL		iP	02 48 31
EUR		eP	02 52 27
		e	53 29
HH		eP	02 51 48
		i	53 10
TUC		eP	02 53 26
Dec. 28			
COL		eP	03 09 23
Dec. 28			
EUR		eP	03 49 43
Dec. 28			
SLC		eP	05 32 25
Dec. 28			
BC		eP	07 33 39
BOZ		eP	07 35 20
BUT		eP	07 35 26
EUR		e(P)	07 35 03
		i	35 07
HH		eP	07 35 46
		e	36 06
		e	36 21
SLC		eP	07 34 51
TUC		eP	07 33 55
Dec. 28			
EUR		eP	13 08 13
Dec. 28			
COL		eP	14 59 50
		e	15 00 33
Dec. 28			
EUR		eP	18 28 52
		i(S)	29 26
		eL	30 03
Dec. 28			
HH		e(P)	18 40 09
Dec. 28			
EUR		eP	20 16 55
Dec. 28			
HH		i(P)	20 35 13
Dec. 29			
EUR		eP	00 08 13
Dec. 29			
BC		eP	00 30 22
SLC		e(P)	00 34 17
Dec. 29			
BC		e(P)	01 10 47
		e	11 05
EUR		eP	01 11 30
		i	11 34
HH		e(P)	01 12 31
SLC		eP	01 11 42
Dec. 29			
COL		iP	03 36 35
HH		eP	03 38 54
Dec. 29			
BC		eP	05 05 00
		e	05 09
BOZ		eP	05 04 34
COL		iP	05 01 23
EUR		iP	05 04 42
HH		iP	05 04 14
		i	04 22
		i	04 26
TUC		eP	05 05 30
Dec. 29			
EUR		iP	06 14 13
		i(S)	14 35
		eL	15 01
Dec. 29			
BC		eP	06 33 45
COL		eP	06 34 09
		e(pP)	36 16
EUR		eP	06 33 51
SLC		eP	06 34 08
TUC		eP	06 33 51
Dec. 29			
COL		iP	08 37 16
HH		eP	08 39 16
		ePP	43 19
Dec. 29			
BC		eP	09 12 25
COL		eP	09 15 03
EUR		eP	09 12 37
HH		e(P)	09 13 04
SJ		eP	09 05 09
TUC		eP	09 11 53
Dec. 29			
BUT		eP	10 02 06

Date and Station		Phase (GCT)
		h m s
COL	e(P)	10 02 56
	i	03 17
HH	eP	10 02 09
Dec. 29		
COL	eP	11 59 59
EUR	eP	11 55 29
Dec. 29		
EUR	eP	13 32 26
Dec. 29		
BC	eP	16 11 30
	ipP	11 55
	iScP	17 35
BOZ	eP	16 10 36
BUT	eP	16 10 37
	ipP	10 57
COL	iP	16 06 09
EUR	iP	16 11 01
	ipP	11 26
	iScP	17 23
HH	eP	16 10 09
	ipP	10 34
	iScP	17 05
SLC	e(P)	16 11 34
TUC	e(P)	16 12 12
	ipP	12 38
	eScP	17 53
Dec. 29		
COL	iP	17 11 42
Dec. 29		
HH	e(P)	20 37 28
Dec. 29		
COL	eP	23 51 53
EUR	eP	23 55 50
Dec. 30		
BOZ	eP	02 08 11
Dec. 30		
HH	eP	03 36 00
Dec. 30		
EUR	eP	03 46 20
	e	46 52
Dec. 30		
BC	eP	05 34 11
COL	iP	05 30 12
EUR	eP	05 33 52
HH	eP	05 33 17

Date and Station		Phase (GCT)
		h m s
TUC	eP	05 34 43
Dec. 30		
COL	eP	07 10 46
Dec. 30		
HH	e(P)	08 57 48
Dec. 30		
BC	eP	09 37 42
	epP	39 41
COL	iP	09 38 09
EUR	eP	09 37 47
	epP	39 47
HH	eP	09 38 14
	epP	40 13
	e(PKKP)	55 43
	e(P'P')	10 02 56
TUC	iP	09 37 47
	epP	39 47
Dec. 30		
SLC	eP	10 55 08
Dec. 30		
HH	i(P)	12 58 37
Dec. 30		
COL	eP	19 08 57
EUR	eP	19 07 54
Dec. 30		
HH	e(P)	19 28 40
Dec. 30		
HH	e(P)	23 56 53
Dec. 31		
BC	iP	05 11 13
BOZ	eP	05 11 43
	e	12 08
BUT	iP	05 11 49
HH	iP	05 12 02
SLC	eP	05 11 23
	e	11 48
SJ	iP	05 07 12
TUC	iP	05 10 41
Dec. 31		
HH	iP	12 57 35
Dec. 31		
BC	eP	13 52 10
	i	53 21
	e(S)	53 20
	iL	53 45

Date and Station		Phase (GCT)
		h m s
BOZ	eP	13 53 16
	e	53 45
	e(S)	55 04
	eL	55 29
BUT	eP	13 53 15
	i	53 44
	eS	55 21
	eL	55 37
HH	eP	13 53 34
	eL	56 00
SLC	eP	13 52 27
	i	52 49
	eS	53 35
	eL	53 47
Dec. 31		
EUR	eP	15 19 30
HH	e(P)	15 18 49
Dec. 31		
EUR	eP	16 33 48
Dec. 31		
EUR	eP	16 43 26
Dec. 31		
EUR	eP	17 11 57
HH	e(P)	17 11 29
Dec. 31		
HH	eP	18 40 43
TUC	eP	18 40 09
	eL	19 07 37
Dec. 31		
HH	e(P)	18 54 07
Dec. 31		
EUR	eP	20 08 19
Dec. 31		
EUR	eP	20 47 18
Dec. 31		
BC	eP	21 26 00
	e	26 07
BOZ	eP	21 25 35
BUT	eP	21 25 28
EUR	iP	21 25 40
HH	iP	21 25 14
SLC	e(P)	21 26 07
	ePP	29 09
TUC	eP	21 26 26
Dec. 31		
EUR	eP	21 34 24

Date and Station		Phase (GCT)
		h m s
SLC	e(P)	21 33 16
Dec. 31		
COL	e(P)	23 45 18

Local and Minor Earthquakes

day	hour
BUT	
Dec.	
5	17.9
	22.5
6	00.8
12	23.7
13	01.0
	17.6
15	17.2
	21.6
	23.0
16	17.7
	18.7
	21.2
	23.2
17	00.9
	21.6
	23.6
18	00.5
	02.6
	04.3
	05.1
19	16.9
	19.0
	23.2
20	00.2
27	17.8
	20.1
28	00.6
	20.8
COL	
Dec.	
2	13.5
3	22.0
4	09.7
5	06.0
	13.4
6	02.9
7	03.8
8	15.8
	17.9
	22.1
9	00.8
	03.4
10	02.8
	23.3
11	03.6
	16.0
	23.0
12	08.7
15	09.8
	10.6
	22.7
18	09.4
	22.3
19	09.7
	13.9
20	03.8
22	04.5
25	14.0
26	15.6
27	18.6
28	07.6
29	07.6
	23.5
30	08.3

Local and Minor Earthquakes

day	hour
EUR	
Dec.	
1	03.9
	08.8
	10.4
	22.6
2	04.5
	18.2
3	01.9
4	17.2
	22.9
6	04.1
	15.8
7	10.2
	14.3
	16.2
	21.6
8	02.5
	11.5
9	03.1
10	15.8
11	00.4
	20.2
14	21.5
15	02.9
	03.3
	08.2
16	00.6
	22.7
17	00.6
	02.8
	08.5
	18.0
	23.1
18	02.0
	03.2
	08.6
	09.5
	13.2
	14.6
	23.7
19	09.9
20	18.5
	23.1
21	23.9
22	13.6
	23.0
23	00.3
	08.8
	17.2
	21.9
	23.3
24	09.7
	13.5
25	09.3
	09.5
	17.3
	21.8
26	09.8
	17.2
	19.7
27	01.3
	09.2
	16.6
	16.8
28	05.6
	07.1

Local and Minor Earthquakes

day	hour
EUR	
Dec.	
28	23.5
29	00.5
	13.6
	22.8
31	20.9
SLC	
Dec.	
6	05.1
18	15.9
28	18.6
	21.8
SJ	
Dec.	
5	09.5
13	05.4
14	09.1
15	15.3
20	02.8
	02.9
	16.4
	23.7
21	06.8
	09.7
	13.4
	14.6
	15.8
	15.9
22	19.9
23	09.7
26	22.1
TUC	
Dec.	
1	08.6
2	02.6
5	05.5
	07.7
6	09.2
7	11.1
10	06.6
	22.5
	23.6
11	06.7
12	07.0
	12.8
13	01.0
	07.6
15	04.1
	08.2
	19.2
16	03.3
17	19.3
18	08.4
	10.5
	23.7
19	05.2
	11.9
22	07.1
	10.1
	12.5
23	00.6
	05.9
	08.8

Local and Minor Earthquakes

day	hour
TUC	
Dec.	
24	09.7
25	09.5
	21.8
28	01.8
	02.0
	03.2
29	08.5
31	13.9

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