

SEISMOLOGICAL BULLETIN



SOUTH POLE - BYRD SUPPLEMENT

JANUARY - MARCH, 1960

MSI - 229A

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U. S. DEPARTMENT OF COMMERCE

Luther H. Hodges, Secretary

COAST AND GEODETIC SURVEY-WASHINGTON

H. Arnold Karo, Director

FOR OFFICIAL DISTRIBUTION

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The instrumental results tabulated in this supplement are from the following seismographic stations.

Station	Latitude	Longitude	Foundation	Elevation	Instruments	Components	T ₀ (Sec.)	T _g (Sec.)	Time Scale
South Pole (SPA) 90°S. In Charge: W.S. Jacobs		0°	1995 meters of ice.	2800 meters.	Benioff Paper. Wilson-Lamison (120°E.-60°W.) Horizontal Film.	Z	1.6	0.5	60mm/min.
							5.6	0.48	15mm/min.
BYRD (BYR) In Charge: L.E. Davis	80°01'S.	119°31'W.	2570 meters of ice.	1515 meters.	Benioff. Wilson-Lamison with G.E. Galvo. Wilson-Lamison with G.E. Galvo.	Z N E	1.2 6.2 7.2	0.5 3.5 3.5	60mm/min. 30mm/min. 30mm/min.

These stations were first established by the Coast and Geodetic Survey for the IGY to provide additional control for local teleseismic epicenters in regions inadequately covered by previously existing stations and to provide data for studies in regional seismicity, crustal structure and other pertinent earth science problems.

Date and Station	Phase (GCT)	Date and Station	Phase (GCT)	Date and Station	Phase (GCT)	Date and Station	Phase (GCT)
Jan. 1 BYR eP ¹ iSKP	h m s 04 30 47 34 18	SPA eP i i i iPcP eL	h m s 12 28 39 28 43 28 56 29 27 31 27 40 39	Jan. 3 SPA eP e	h m s 14 15 21 15 29	Jan. 6 SPA eP i	h m s 03 20 43 21 07
Jan. 1 SPA iP	09 56 02	Jan. 2 BYR iP ePP	12 29 27 30 53	Jan. 3 SPA eP e	14 20 51 21 05	Jan. 6 SPA iP	06 16 41
Jan. 1 SPA eP	10 30 46	Jan. 2 BYR eP	13 49 45	Jan. 3 SPA eP	20 38 08	Jan. 6 SPA eP	07 50 05
Jan. 1 BYR e(P)	11 46 58	Jan. 2 SPA iP	15 22 33	Jan. 3 BYR e(P ¹)	21 42 38	Jan. 6 SPA eP	11 29 54
SPA iP	11 47 12	Jan. 2 SPA eP	16 18 55 19 13 19 48	Jan. 4 SPA iP e ePcP	10 35 27 35 47 36 51	Jan. 6 SPA eP	13 23 07
Jan. 1 BYR iP	15 47 01	Jan. 2 BYR eP	21 35 30	Jan. 4 BYR eP	11 53 22	Jan. 6 SPA iP i e e	18 43 01 43 17 19 28 58 29 12 29 39 31 55
SPA iP	15 47 32	SPA eP	21 35 42	SPA eP e	11 54 44 54 59	Jan. 6 BYR iP	20 29 14
Jan. 1 BYR eP ¹	23 32 00	Jan. 3 BYR eP ¹	01 32 04	Jan. 4 BYR eP	15 17 37	Jan. 7 SPA eP	11 02 47
SPA iP ¹ i i	23 32 11 32 27 32 50	Jan. 3 SPA eP	03 33 02 03 45 19	SPA iP e i i e e	15 18 15 18 25 18 31 18 54 19 34 19 45	Jan. 7 SPA eP	12 21 59
Jan. 2 SPA eP	02 03 12	Jan. 3 BYR eP	07 30 23	Jan. 4 BYR iP	16 26 58	Jan. 7 SPA iP	12 39 49
Jan. 2 BYR eP ¹	02 11 45	SPA eP i	07 31 35 31 48	SPA eP	16 26 09	Jan. 7 SPA eP e	13 03 10 03 32
Jan. 2 BYR iP	03 32 21	Jan. 3 SPA iP e	10 52 04 52 35	Jan. 5 BYR eP	05 24 31	Jan. 7 BYR iP e(PP) e(PPP) eS	13 35 17 36 15 37 00 41 04
SPA iP i(PcP) iP e	03 32 57 33 12 33 35 34 18	Jan. 3 SPA eP	11 19 32	Jan. 5 SPA eP	06 34 38	SPA eP i iPP i(PcP) e(S) eL	13 35 03 35 46 36 22 37 20 41 12 44 29
Jan. 2 BYR e(P)	05 21 01	Jan. 3 BYR e(P ¹)	11 43 33	Jan. 5 BYR e(P)	09 43 16	Jan. 7 BYR eP	14 43 08
SPA eP e	05 20 21 20 43	SPA eP ¹ e	11 43 27 49 56	SPA eP e	09 43 50 44 14	SPA iP i e	14 42 54 43 30 44 23
Jan. 2 BYR e(P ¹)	07 19 06	Jan. 3 BYR eP ¹	11 58 00	Jan. 5 SPA iP	18 00 23	Jan. 7 BYR eP	14 58 20
SPA eP ¹ i e	07 19 14 19 21 22 49	SPA iP ¹ i i	11 58 25 58 33 58 43	Jan. 6 SPA eP	00 01 58	SPA eP e e	14 58 06 58 14 15 00 36
Jan. 2 BYR iP ePP	12 29 27 30 53	Jan. 3 SPA eP	13 19 06	Jan. 6 SPA eP	03 02 44		

Date and Station	Phase (GCT)	Date and Station	Phase (GCT)	Date and Station	Phase (GCT)	Date and Station	Phase (GCT)
Jan. 7	h m s	Jan. 8	h m s	Jan. 9	h m s	Jan. 10	h m s
BYR eP	15 13 33	SPA iP	15 34 58	BYR eP'	07 42 50	SPA iP	13 21 06
SPA eP	15 13 16	e	35 39	e	43 00	Jan. 10	
i	13 31	ePP	35 56	e	43 20	SPA eP'	23 51 22
		e(PPP)	36 40	ePKS	46 09	i	51 25
Jan. 7		Jan. 8		Jan. 9		Jan. 11	
SPA eP	17 33 02	SPA eP	17 47 11	BYR e(P)	07 55 11	SPA iP	00 20 41
i	33 23						
Jan. 7		Jan. 8		SPA eP	07 54 56	Jan. 11	
SPA eP	20 24 33	SPA eP	17 54 56	e	55 51	BYR e(P)	15 06 11
		e	18 00 49				
Jan. 8		Jan. 8		Jan. 9		SPA eP	15 05 49
BYR iP	02 41 46	BYR eP	21 52 33	SPA eP	13 39 04	e(PP)	09 17
SPA iP	02 41 27	SPA eP	21 52 13	Jan. 9		Jan. 11	
i	41 41	e	52 32	SPA iP	14 18 04	BYR iP	15 06 47
e	41 18	ePcP	53 06	Jan. 9		SPA iP	15 06 25
i	43 03			SPA e(P)	15 32 06		
ePcP	43 54	Jan. 8		e	32 11	Jan. 11	
i	44 19	SPA eP	22 28 39	Jan. 9		SPA eP	15 15 49
iL	48 11	Jan. 9		SPA iP'	18 08 46	Jan. 11	
Jan. 8		SPA eP	01 13 03	i	09 24	SPA eP	15 28 17
SPA eP	06 11 25	Jan. 9		e(PP)	12 24	e	28 35
Jan. 8		SPA eP'	01 47 11	Jan. 9		Jan. 11	
BYR e(P)	07 54 57	Jan. 9		BYR eP	21 03 09	SPA eP	18 00 21
SPA eP	07 55 35	SPA eP	04 11 09			e	00 38
Jan. 8		Jan. 9		SPA eP	21 02 55	Jan. 11	
SPA iP	08 33 33	SPA eP'	04 17 50	e	03 23	SPA eP	19 47 52
Jan. 8		Jan. 9		Jan. 10		Jan. 11	
SPA iP	10 11 21	SPA iP	04 30 57	BYR e(P)	02 44 13	BYR e(P)	23 07 09
Jan. 8		Jan. 9		SPA eP	02 45 02	Jan. 11	
SPA eP	10 28 57	SPA iP	04 56 57	e	45 22	SPA eP	23 06 57
Jan. 8		e	59 05	Jan. 10		e	07 14
BYR iP	11 36 26	Jan. 9		SPA iP	03 52 01	e	07 29
ePP	37 38	SPA eP	05 53 24		52 33	Jan. 12	
ePPP	37 58	e	53 35	Jan. 10		BYR eP	02 48 00
e	11 47 27	Jan. 9		SPA iP	05 27 16	SPA eP	02 47 47
SPA iP	11 36 10	SPA eP	05 56 56	i	27 24	Jan. 12	
i	36 31	Jan. 9		i	27 58	BYR iP	03 16 18
e(PP)	37 02	SPA eP	06 23 58	e(PP)	28 42	ePP	17 46
e	39 35	Jan. 9		e(ScS)	38 03	e(S)	22 20
e(S)	42 26	SPA eP	06 43 54	eL	40 26	eL	24 17
Jan. 8		Jan. 9		BYR eP	05 27 30	SPA eP	03 16 02
SPA eP	12 41 12	SPA eP	07 02 47	e(PP)	29 04	e	20 21
Jan. 8		Jan. 9		Jan. 10		e	21 15
BYR iP	14 53 02	SPA eP'	07 02 47	SPA eP	06 15 36	Jan. 12	
eL	15 01 10	Jan. 9		Jan. 10		BYR eP	03 21 36
SPA iP	14 52 47	SPA iP'	07 42 38	BYR eP	07 30 45	Jan. 12	
e(PP)	53 32	e	43 00	SPA iP	07 30 30	BYR eP	05 51 11
e(PPP)	54 11	epP'	43 27	e	32 25	Jan. 12	
eL	59 09	eSKP	45 35	Jan. 10		BYR eP	06 37 47
e	15 01 51	i	45 52	SPA eP	12 41 28		
i	04 13	e	47 41	Jan. 10			
				SPA eP	13 07 48		

Date and Station	Phase (GCT)	Date and Station	Phase (GCT)	Date and Station	Phase (GCT)	Date and Station	Phase (GCT)
	h m s		h m s		h m s		h m s
SPA eP	06 37 33	Jan. 13 BYR i(P')	16 49 00	SPA eP	17 20 17	SPA eP	18 50 17
e	45					e	50 36
e	38 53	SPA eP'	16 49 08			Jan. 16 BYR iP	21 08 50
		i	49 18	Jan. 14			
Jan. 12		iSKP	53 22	SPA eP	18 51 33	SPA iP'	21 09 04
SPA eP	08 04 14			e	52 00	i	09 14
i	23	Jan. 13				i	09 27
ePcP	05 17	SPA iP	17 31 44	Jan. 14		ipP'	09 50
e(PP)	06 04			BYR iP	19 04 09	i	10 01
		Jan. 14				e	11 14
Jan. 12		SPA eP	05 46 53	SPA eP	19 03 53		
SPA eP	09 00 57			e	04 29	Jan. 16	
		Jan. 14		e	05 03	BYR eP	21 53 45
Jan. 12		BYR eP	06 35 33				
SPA eP	10 57 48			Jan. 15		SPA iP	21 53 54
		SPA iP	06 35 23	BYR iP	09 41 14	i	54 17
Jan. 12				e(pP)	41 41		
BYR iP	15 02 07	Jan. 14				Jan. 17	
		BYR iP	07 38 27	SPA iP	09 41 55	SPA iP	03 09 23
SPA eP	15 01 52	ePP	39 57	i(pP)	42 21		
e	02 00			i(sP)	42 37	Jan. 17	
e	03 26	SPA eP	07 38 12	iPP	44 24	SPA iP'	03 10 31
		ePP	39 29	e	49 20		
Jan. 12		eS	07 44 28	eS	51 36	Jan. 17	
SPA eP	17 01 31			eP'P'	10 09 12	SPA eP	04 00 13
		Jan. 14					
Jan. 12		BYR eP	07 50 17	Jan. 15		Jan. 17	
SPA eP	20 08 21			BYR eP	12 47 30	SPA eP'	04 38 34
		Jan. 14					
Jan. 12		BYR eP	08 31 15	SPA eP	12 47 13	Jan. 17	
BYR eP	22 33 28					SPA eP	05 26 15
		SPA eP	08 30 00	Jan. 15			
SPA eP	22 34 04			SPA iP	14 42 29	Jan. 17	
e	28	Jan. 14				SPA eP	08 07 21
		SPA eP'	09 46 11	Jan. 15			
Jan. 12				SPA eP	23 43 38	Jan. 17	
SPA iP	23 52 09	Jan. 14				SPA eP	15 35 46
i	32	BYR iP'	10 44 53	Jan. 15			
				SPA iP	23 51 58	Jan. 18	
Jan. 13		SPA eP'	10 44 49			SPA eP	00 26 00
SPA eP	06 29 39	e	45 35	Jan. 16			
		e(SKIP)	46 45	SPA eP	07 05 18	Jan. 18	
Jan. 13				e	05 50	BYR e(P)	01 12 38
SPA iP	06 44 54	Jan. 14		ePP	06 14	e	13 14
e	46 52	BYR e(P')	13 08 38				
				Jan. 16		SPA iP	01 11 25
Jan. 13		SPA iP'	13 08 46	SPA iP	12 41 13	es	17 11
SPA eP	09 14 38	i	08 53	ePcP	41 31		
				ipP	43 12	Jan. 18	
Jan. 13		Jan. 14				BYR e(P')	09 22 36
SPA eP	09 51 56	SPA eP	13 24 11	Jan. 16			
				SPA eP	12 53 50	Jan. 18	
Jan. 13		Jan. 14				BYR e(P)	17 01 29
SPA iP	10 15 56	SPA eP	13 33 30	Jan. 16			
				SPA eP	13 08 16	SPA eP	17 02 32
Jan. 13		Jan. 14					
SPA eP	13 15 47	SPA eP	14 45 42	Jan. 16		Jan. 18	
				BYR eP	15 43 34	BYR e(P)	18 44 00
Jan. 13		Jan. 14					
BYR iP	15 51 03	SPA eP	15 41 48	SPA eP	15 43 57	SPA eP	18 44 36
eS	16 00 14			ePcP	44 17		
eL	16 07 56	Jan. 14		e	44 36	Jan. 18	
eP'P'	16 19 36	SPA iP	16 12 04			BYR eP	19 43 24
e(pP'P')	16 20 14	BYR iP		Jan. 16			
				SPA eP	18 15 28		
SPA iP	15 51 53	Jan. 14					
i	57 03	BYR eP	17 20 32	Jan. 16			
e	58 11			BYR eP	18 50 00		
iS	16 01 27						
e	10 15						
eP'P'	19 27						
e(pP'P')	20 04						

Date and Station	Phase (GCT)	Date and Station	Phase (GCT)	Date and Station	Phase (GCT)	Date and Station	Phase (GCT)
	h m s		h m s		h m s		h m s
SPA eP	19 43 59	SPA eP	10 21 00	Jan. 22 SPA eP	23 07 41	Jan. 23 SPA eP	22 09 47
e	44 08			e	07 50		
ePP	48 09	Jan. 20 SPA eP	11 48 27	Jan. 23 BYR iP	04 54 00	Jan. 23 SPA eP	22 31 44
Jan. 19 SPA eP	02 00 29	Jan. 20 SPA eP	11 52 50	e	56 26	Jan. 24 BYR e(P)	01 20 00
Jan. 19 BYR e(P')	02 36 11	Jan. 20 BYR eP	20 08 52	e	56 43	Jan. 24 SPA eP	03 31 37
e(SKIP)	39 50	Jan. 21 SPA iP	00 20 08	SPA iP	04 53 40	Jan. 24 BYR eP	04 32 50
SPA eP'	02 36 17	Jan. 21 SPA eP'	04 31 18	e	54 16	eL	52 06
e(SKIP)	39 56	Jan. 21 BYR eP	10 53 51	Jan. 23 BYR iP	06 34 34	Jan. 24 SPA iP	04 33 24
e	47 12	SPA eP	10 54 21	e	54 46	i	33 39
Jan. 19 SPA eP	05 37 12	ePcP	54 38	eS	55 09	e	40 12
Jan. 19 BYR iP	09 24 35	Jan. 21 SPA iP	13 03 16	e	56 29		41 16
epP	26 26	i	03 36	SPA iP	07 43 58	Jan. 24 SPA iP	06 17 43
e(P'P')	53 04	Jan. 21 BYR e(P)	17 54 43	ePP	47 12	i	17 54
SPA iP	09 25 04	SPA iP	17 55 17	ePPP	49 12	Jan. 24 SPA eP	09 26 31
e	25 42	Jan. 22 BYR e(P')	02 33 33	e	53 56	Jan. 24 BYR eP	09 27 43
i	26 15	Jan. 22 BYR iP	07 33 52	eS	54 24	SPA iP	09 28 12
ipP	27 02	SPA iP	07 34 37	Jan. 23 BYR eP	07 53 46	epP	30 22
eS	33 16	i	34 54	Jan. 23 SPA eP	08 16 52	Jan. 24 BYR e(P)	12 29 01
Jan. 19 BYR e(P)	11 22 43	Jan. 22 BYR e(P)	07 48 06	Jan. 23 BYR e(P)	08 46 58	SPA iP	12 28 55
SPA eP	11 23 29	SPA eP	07 48 12	SPA eP	08 46 39	Jan. 24 BYR eP	17 08 13
Jan. 19 SPA iP	12 06 43	Jan. 22 SPA eP	11 25 12	Jan. 23 BYR e(P)	09 49 06	SPA iP	17 08 29
Jan. 19 SPA eP	16 57 54	Jan. 22 BYR iP	13 49 19	SPA iP	09 49 42	i	08 41
Jan. 19 BYR e(P)	19 38 12	SPA iP	13 48 57	Jan. 23 BYR eP	12 10 06	Jan. 25 SPA eP	03 48 56
SPA iP	19 38 42	e	49 42	SPA eP	12 11 35	Jan. 25 BYR e(P')	09 05 56
Jan. 19 BYR eP	20 25 59	e	49 55	Jan. 23 SPA eP	12 20 39	Jan. 25 BYR eP	15 14 40
Jan. 20 BYR e(P)	01 16 57	Jan. 22 BYR e(P')	18 23 13	e	22 34	Jan. 25 BYR eP	16 40 41
SPA iP	01 16 47	SPA e(P')	18 23 43	Jan. 23 SPA iP	13 22 57	Jan. 25 SPA eP'	16 55 33
e	17 01	Jan. 22 SPA eP	18 49 53	Jan. 23 BYR iP	18 09 34	Jan. 25 SPA eP	17 10 46
Jan. 20 BYR e(P)	03 00 13	Jan. 22 SPA eP	22 26 51	SPA eP	18 09 13	Jan. 26 BYR eP	03 28 56
SPA iP	03 00 44	Jan. 22 SPA eP	22 56 02	e	09 55		
Jan. 20 SPA eP	05 05 28			e	10 38		
Jan. 20 SPA eP	08 18 29			ePP	12 46		
Jan. 20 BYR EP	10 19 56			ePPP	14 40		

Date and Station	Phase (GCT)	Date and Station	Phase (GCT)	Date and Station	Phase (GCT)	Date and Station	Phase (GCT)
Jan. 26 BYR eP	h m s 04 19 18	Jan. 29 BYR iP e(PP)	h m s 07 54 28 56 12	SPA iP	h m s 19 19 04	SPA iP	h m s 02 30 17
Jan. 26 BYR eP	09 01 46	SPA iP iPP eS	07 53 30 54 55 58 52	Feb. 1 BYR eP'	02 27 33	e e	51 35 14
Jan. 26 BYR eP	09 28 14	Jan. 29 SPA iP	08 15 25	Feb. 1 BYR iP'	03 00 41	Feb. 3 BYR e(P)	09 16 55
Jan. 26 BYR e(P)	09 30 44	Jan. 29 SPA iP	08 23 09	SPA eP'	03 00 37	Feb. 3 BYR eP	12 03 26
Jan. 26 BYR e(P)	18 33 11	Jan. 29 SPA iP e i ePP	08 23 01 23 13 23 36 26 22	Feb. 1 SPA eP	05 47 30	SPA eP e	12 03 27 03 42
Jan. 26 BYR iP'	20 46 18	Jan. 30 BYR eP	00 48 29	Feb. 1 BYR e(P')	14 15 24	Feb. 3 BYR e(P')	13 08 13
Jan. 26 BYR iP	22 30 51	Jan. 30 BYR e(P)	04 20 12	Feb. 1 SPA eP e e	15 54 23 54 29 55 08	Feb. 3 BYR eP	13 40 54
Jan. 27 SPA eP	02 22 17	SPA eP e	04 20 44 21 54	Feb. 1 BYR iP	20 17 43	SPA eP	13 40 58
Jan. 27 BYR iP e e	04 32 54 42 09 52 05	Jan. 30 BYR e(P)	05 19 23	Feb. 1 SPA eP	20 18 20	Feb. 3 BYR e(P)	14 39 27
Jan. 27 SPA iP e	08 23 46 23 59	SPA iP	05 20 02	Feb. 2 BYR eP e e(PcP) e	06 39 12 39 28 40 21 40 30	SPA eP	14 40 04
Jan. 27 SPA eP	09 38 37	Jan. 30 SPA iP	07 44 49	SPA eP e(PcP) e	06 39 43 40 23 40 36	Feb. 3 BYR eP	18 04 03
Jan. 27 SPA iP	10 17 21	Jan. 30 BYR eP	11 03 25	Feb. 2 BYR e(P')	08 29 49	SPA eP	18 04 22
Jan. 27 BYR iP	17 23 13	SPA iP	11 04 00	SPA eP'	08 29 45	Feb. 3 BYR eP	18 22 24
Jan. 27 SPA eP	21 00 13	Jan. 31 BYR iP	04 14 36	Feb. 2 BYR e(P')	08 29 49	SPA eP	18 22 42
Jan. 28 SPA eP	01 48 26	SPA iP e	04 14 52 15 45	Feb. 2 BYR eP	09 22 29	Feb. 4 BYR eP	03 59 06
Jan. 28 SPA eP i	01 53 40 53 46	Jan. 31 BYR eP'	05 27 19	SPA eP e	09 23 12 09 23 20	i i e ePP iS eL	22 59 42 04 01 31 02 14 09 02 22 19
Jan. 28 SPA eP	14 02 09	SPA eP'	05 27 13 27 39	Feb. 2 BYR eP	09 23 12 09 23 20	SPA eP ePP ePPP	03 59 09 04 02 24 04 12
Jan. 28 SPA iP e	15 32 25 32 45	Jan. 31 BYR iP	13 09 29	Feb. 2 SPA eP	17 22 26.21	Feb. 4 SPA eP	06 05 10
Jan. 28 BYR eP	22 31 38	Jan. 31 SPA eP	16 52 16	Feb. 2 BYR eP	19 46 40	Feb. 4 BYR eP	07 21 18
Jan. 29 BYR e(P')	07 52 41	Jan. 31 BYR e(P')	17 46 15	Feb. 2 BYR eP	23 53 31	Feb. 4 SPA eP	09 39 54
SPA eP'	07 52 23	SPA iP'	17 46 17	Feb. 3 SPA eP	00 10 52	SPA eP epP e	09 39 54 40 21 41 43
		Jan. 31 BYR eP	19 18 27	Feb. 3 BYR iP	02 29 46	Feb. 4 BYR e(P')	10 39 53

Date and Station	Phase (GCT)	Date and Station	Phase (GCT)	Date and Station	Phase (GCT)	Date and Station	Phase (GCT)
	h m s		h m s		h m s		h m s
SPA eP'	10 39 34	Feb. 5 BYR eP	05 52 23	SPA eP	10 20 13	SPA eP	03 12 17
Feb. 4 BYR e(P)	11 13 58	SPA eP	05 52 26	e	20 24	Feb. 9 SPA eP	05 41 25
Feb. 4 SPA eP	12 22 34	e	52 51	Feb. 7 ^{ep} P BYR iP	11 28 01	Feb. 9 SPA eP	05 51 30
Feb. 4 BYR e(P)	15 37 00	Feb. 5 SPA eP	08 36 59	Feb. 7 SPA eP	14 59 16	Feb. 9 BYR iP	12 09 14
Feb. 4 SPA eP	15 49 56	Feb. 5 BYR eP'	09 02 34	Feb. 7 BYR e(P)	22 46 21	SPA eP	12 08 56
e	52 25	Feb. 5 SPA eP	12 44 09	Feb. 7 BYR e(P)	23 06 26	e	12 17
Feb. 4 BYR eP'	17 09 41	Feb. 6 BYR e(P')	01 26 05	SPA eP	23 05 55	Feb. 9 BYR e(P)	14 01 26
e(PP)	11 55	Feb. 6 BYR eP	01 32 56	Feb. 8 BYR e(P)	03 12 58	Feb. 9 BYR eP	16 47 23
eL	40 18	SPA eP	01 33 02	SPA eP	03 13 28	SPA eP	16 47 18
SPA eP'	17 09 36	Feb. 6 BYR iP	01 38 58	Feb. 8 BYR e(P)	09 32 14	Feb. 9 SPA eP	17 01 13
ePP	11 41	Feb. 6 BYR eP	02 10 44	SPA eP	09 32 16	Feb. 9 SPA eP	22 52 05
Feb. 4 BYR eP	17 34 16	Feb. 6 SPA eP	05 18 21	Feb. 8 BYR iP	12 51 20	Feb. 10 BYR iP	00 08 52
SPA iP	17 34 05	Feb. 6 BYR eP	05 38 45	e	51 42	ePP	12 26
i	34 42	Feb. 6 BYR e(P)	11 48 40	eS	55 53	e(PPP)	14 25
Feb. 4 BYR eP	17 59 35	SPA eP	11 48 40	eL	57 27	eS	19 52
SPA eP	17 59 28	Feb. 6 SPA eP	14 50 02	Feb. 8 SPA eP	12 52 02	eL	35 47
Feb. 4 SPA eP	19 43 50	Feb. 6 BYR iP	17 23 56	ePP	52 29	SPA eP	00 08 32
Feb. 4 BYR e(P)	20 48 20	SPA eP	17 23 20	e(PPP)	53 42	e	09 18
SPA eP	20 48 48	Feb. 7 SPA eP	02 28 08	eL	13 04 44	e	09 26
epP	50 50	Feb. 7 SPA eP	02 41 18	e	06 59	e(PP)	11 41
Feb. 4 BYR e(P')	21 16 30	Feb. 7 BYR eP	04 37 55	Feb. 8 BYR e(P')	19 13 20	Feb. 10 BYR eP	01 28 46
SPA e(P')	21 17 00	Feb. 7 SPA eP	04 38 27	ePP	16 46	SPA eP	01 28 26
Feb. 4 BYR eP	22 11 01	Feb. 7 SPA eP	09 39 48	Feb. 8 SPA eP'	19 13 10	Feb. 10 BYR e(P)	01 41 53
SPA eP	22 10 44	Feb. 7 BYR eP	10 20 35	Feb. 8 BYR eP	19 17 39	SPA eP	01 42 23
Feb. 5 SPA eP	00 12 11	Feb. 7 SPA eP	09 39 48	SPA e(P)	19 18 17	Feb. 10 BYR eP	02 12 09
Feb. 5 BYR eP	01 15 28	Feb. 7 BYR eP	10 20 35	Feb. 8 BYR iP	19 18 18	SPA eP	02 11 47
Feb. 5 BYR eP	01 20 21	Feb. 7 SPA eP	09 39 48	SPA iP	19 18 56	Feb. 10 SPA eP	04 12 26
Feb. 5 BYR eP	02 10 25	Feb. 7 BYR eP	10 20 35	Feb. 8 BYR iP	22 06 48	Feb. 10 SPA e(P)	04 26 05
e(PP)	12 05	Feb. 7 BYR epP	22 34	Feb. 9 BYR e(P)	03 12 14	Feb. 10 BYR eP	08 01 36
SPA eP	02 11 34	iPP	24 32			e	01 56
e	11 45					i	02 05

Date and Station	Phase (GCT)	Date and Station	Phase (GCT)	Date and Station	Phase (GCT)	Date and Station	Phase (GCT)
Feb. 10 SPA eP	h m s 11 27 08	SPA eP e	h m s 21 08 01 08 56	Feb. 14 BYR iP ipP	h m s 18 32 26 32 57	Feb. 16 BYR iP iPcP e(PP)	h m s 05 31 13 32 17 33 43
Feb. 10 SPA eP	12 43 25	Feb. 12 BYR eP	01 42 22	SPA eP epP	18 33 04 33 37	SPA eP ePcP e e ePP e	05 31 45 32 30 33 05 33 25 33 50 36 39
Feb. 10 SPA eP	12 57 25	SPA eP e	01 42 24 42 54	Feb. 14 SPA eP	19 03 03	Feb. 16 BYR eP	10 47 49
Feb. 10 BYR e(P)	15 57 24	Feb. 12 BYR eP	04 21 37	Feb. 14 BYR eP	19 40 44	SPA eP	10 47 54
SPA eP e	15 57 28 58 00	Feb. 12 BYR e(P)	04 56 58	SPA e(P)	19 39 44	Feb. 16 SPA eP	14 50 20
Feb. 10 BYR iP	21 28 12	Feb. 12 BYR e(P)	05 41 46	Feb. 14 BYR eP	20 35 08	Feb. 16 BYR eP	16 19 38
Feb. 10 SPA eP e	22 03 29 03 34	Feb. 12 BYR e(P)	23 28 28	Feb. 14 BYR eP e	20 43 18 43 44	Feb. 16 SPA eP	17 59 32
Feb. 10 BYR eP	23 30 54	Feb. 13 BYR iP e iPP	15 54 33 54 59 58 18	SPA eP e	20 43 22 43 49	Feb. 16 SPA eP	18 14 42
Feb. 11 SPA eP	03 26 30	SPA eP e e	15 54 14 55 01 56 04	Feb. 14 SPA eP	21 05 38	Feb. 16 SPA eP	19 06 58
Feb. 11 BYR eP	04 08 51	Feb. 13 BYR iP ipP	20 50 46 51 24	Feb. 15 BYR iP	02 46 19	Feb. 16 SPA eP	19 18 57
SPA eP e(PcP) e(PP) eS	04 09 23 10 10 11 49 17 29	SPA eP epP	20 51 23 51 58	Feb. 15 BYR eP	03 54 50	Feb. 17 BYR iP	00 12 05
Feb. 11 BYR eP	04 38 08	Feb. 14 BYR iP e	05 30 25 30 58	Feb. 15 SPA eP	11 06 39	SPA eP	00 12 39
Feb. 11 BYR iP	05 57 22	SPA eP e(PcP)	05 31 05 32 12	Feb. 15 BYR eP	22 28 09	Feb. 17 BYR eP	05 07 39
SPA eP	05 57 39	Feb. 14 BYR iP	13 02 42	SPA eP e e	22 28 44 28 53 30 19	Feb. 17 BYR eP	10 10 03
Feb. 11 SPA eP	06 47 25	SPA eP	13 03 12	Feb. 16 BYR eP	01 19 11	SPA eP e	10 10 38 10 52
Feb. 11 BYR eP	08 41 23	Feb. 14 SPA eP e ePcP	15 50 00 50 10 50 26	SPA eP e(PcP) e ePP	01 19 46 20 55 21 08 22 08	Feb. 17 SPA eP	11 12 15
SPA eP e	08 41 26 42 06	Feb. 14 BYR eP	16 49 24	Feb. 16 BYR iP	02 47 27	Feb. 17 SPA eP	11 51 08
Feb. 11 BYR e(P)	10 48 28	14 BYR eP	16 52 43	SPA eP	02 46 50	Feb. 17 BYR eP	12 42 23 42 50
SPA eP e	10 48 13 48 40	SPA e(P) e	16 53 12 21	Feb. 16 BYR eP	03 15 35	SPA eP e e	17 02 24 17 02 15 02 33 02 43
Feb. 11 BYR iP	13 02 47	Feb. 14 SPA eP	17 33 51	Feb. 16 BYR eP	03 16 11		
SPA eP e ePcP eP'P'	13 03 32 04 13 04 31 33 39			Feb. 16 BYR eP	05 19 47		
Feb. 11 BYR iP	21 07 57						

Date and Station	Phase (GCT)	Date and Station	Phase (GCT)	Date and Station	Phase (GCT)	Date and Station	Phase (GCT)
	h m s		h m s		h m s		h m s
Feb. 18 BYR eP'	19 41 19	SPA iP epP e(sP) e e(PP)	00 55 34 55 47 55 58 56 18 57 16	Feb. 22 BYR eP e	13 19 17 20 02	Feb. 23 BYR eP	18 47 36
Feb. 18 BYR eP'	21 54 21	Feb. 21 SPA eP	01 44 40	Feb. 22 SPA eP	16 32 33	Feb. 23 SPA eP	21 01 10
Feb. 19 BYR eP'	05 28 50	Feb. 21 SPA eP	06 18 24	Feb. 22 SPA eP	16 49 10	Feb. 24 BYR eP	01 28 12
Feb. 19 BYR eP'	10 55 37	Feb. 21 BYR eP	07 37 10	Feb. 22 SPA eP	20 49 02 49 13	Feb. 24 SPA eP	07 42 53
i e(pP')	55 50 56 49	Feb. 21 BYR iP	09 49 13	Feb. 22 SPA eP	21 32 55	Feb. 24 SPA eP	08 50 18
e iPP	57 33 58 32	Feb. 21 BYR e(P)	19 48 32	Feb. 22 BYR e(P)	23 00 07	Feb. 24 BYR eP	08 52 13
e(SKIP)	58 42	SPA eP	19 49 01	Feb. 23 SPA eP	00 34 45	SPA iP e e	08 52 31 52 38 52 46
ipPP	59 03	Feb. 21 SPA eP	22 00 35	Feb. 23 SPA eP'	00 59 32	Feb. 24 BYR eP	08 58 12
e	11 00 34	Feb. 21 BYR e(P)	22 56 42	Feb. 23 SPA eP	01 30 22	Feb. 24 SPA eP	09 58 36
e	00 35	SPA eP	22 56 25	Feb. 23 BYR eP'	02 28 34 31 59	Feb. 24 BYR eP	15 45 04
e	08 46	Feb. 22 BYR eP	00 57 06	Feb. 23 BYR eP'	09 42 42	Feb. 24 SPA eP	19 57 31
SPA eP'	10 55 10	SPA eP	00 57 39	Feb. 23 SPA eP	10 23 54	Feb. 24 BYR iP	21 49 26
i	55 30	Feb. 22 BYR eP	01 04 17	Feb. 23 SPA eP	11 19 36	Feb. 24 BYR iP	50 20
e	55 51	Feb. 22 BYR epP	06 28	Feb. 23 SPA eP	11 41 05	e(PP)	52 37
e(pP')	56 09	SPA eP	01 04 47	Feb. 23 BYR eP	11 41 36	eS.	59 41
i	56 25	ePcP	05 02	SPA eP	41 47	eL	22 16 04
ePP	57 19	epP	06 51	Feb. 23 e(PcP)	43 21	SPA eP	21 49 30
e	58 18	Feb. 22 BYR e(P)	01 44 32	Feb. 23 SPA eP	12 01 31	e	46
e	58 42	Feb. 22 BYR iP	02 29 37	Feb. 23 SPA eP	12 01 34	e	50 46
e	59 19	Feb. 22 SPA eP	03 44 57	Feb. 23 BYR iP	12 49 53	e	51 15
e	11 09 25	Feb. 22 SPA eP	04 07 44	SPA eP	12 50 31	eS	59 53
e	13 16	Feb. 22 BYR eP	05 29 28	Feb. 23 BYR eP	16 17 20	Feb. 24 SPA e(P)	22 19 21
Feb. 19 SPA eP	12 36 16	SPA eP	05 30 03	Feb. 23 SPA eP	16 17 22	Feb. 24 BYR eP	23 51 16
Feb. 20 BYR e(P)	00 23 57	Feb. 22 BYR e(P)	07 12 35	Feb. 23 BYR eP	17 39	Feb. 25 SPA eP	01 36 36
SPA eP	00 24 41	Feb. 22 BYR e(P)	08 44 14	Feb. 23 SPA eP	17 54	Feb. 25 BYR iP	01 40 17
e	24 54	Feb. 22 BYR e(P)	08 44 43	Feb. 23 SPA eP	17 39 57	Feb. 25 SPA eP	03 46 00
Feb. 20 SPA eP	00 41 07	SPA eP	08 44 43			Feb. 25 SPA eP	08 50 49
Feb. 20 SPA eP	06 01 36						
Feb. 20 SPA eP	07 54 13 55 24						
Feb. 20 SPA eP	11 17 10						
Feb. 21 SPA eP	00 03 37						
Feb. 21 SPA eP	00 16 16						
Feb. 21 BYR iP	00 55 09						
ipP	55 22						
i(PP)	56 50						
e(PPP)	57 03						
eScP	01 00 36						

Date and Station	Phase (GCT)	Date and Station	Phase (GCT)	Date and Station	Phase (GCT)	Date and Station	Phase (GCT)
Feb. 25 SPA eP	h m s 10 22 45	Feb. 26 BYR eP ¹ eSKP	h m s 23 48 39 52 14	Feb. 27 SPA eP	h m s 15 08 36	Feb. 29 BYR iP	h m s 22 50 09
Feb. 25 SPA eP e	15 36 43 37 45	Feb. 27 SPA eP ¹ e e e e	23 48 53 49 04 49 17 49 43 50 51	Feb. 27 BYR eP	16 06 18	Feb. 29 BYR eP ¹	23 59 15
Feb. 25 SPA eP	18 27 27	Feb. 27 SPA eP ¹ e	00 00 23 01 07	Feb. 27 BYR eP	20 00 54	March 1 BYR eP	00 44 30
Feb. 25 BYR iP	19 38 42	Feb. 27 SPA eP ¹	00 26 48	Feb. 27 BYR e(P)	23 19 24	March 1 BYR iP	02 17 12
Feb. 25 SPA eP	20 52 23	Feb. 27 SPA eP ¹	06 04 37 11 02	Feb. 28 BYR e(P)	01 28 21	March 1 SPA eP	03 36 42
Feb. 25 BYR iP	21 08 00	Feb. 27 SPA eP ¹ e	08 29 24 29 45 32 54	Feb. 28 SPA eP ¹ e e	01 47 12 47 57 48 41	March 1 SPA eP	04 33 24
Feb. 25 SPA eP	21 08 04	Feb. 27 BYR eP ¹ e eSKP	08 29 24 29 45 32 54	Feb. 28 BYR eP	07 25 51	March 1 BYR eP	08 18 11
Feb. 26 BYR eP	01 19 41	Feb. 27 SPA eP ¹	08 29 42	Feb. 28 SPA eP ¹	07 27 21	March 1 SPA eP	08 18 32 19 31
Feb. 26 BYR iP	02 21 40	Feb. 27 BYR iP e(PcP) eS eSKS	09 05 32 06 19 13 24 22 46	Feb. 28 BYR eP ¹	09 53 30	March 1 SPA eP	11 51 33
Feb. 26 SPA eP e e	02 21 28 21 38 22 30	Feb. 27 BYR iP e(PcP) eS eSKS	09 06 05 06 10 06 43	Feb. 28 SPA eP	10 39 49	March 1 SPA eP	11 56 05
Feb. 26 SPA eP e	04 32 48 34 43	Feb. 27 BYR iP	09 18 33	Feb. 28 BYR eP	10 45 28	March 1 SPA eP	12 03 14
Feb. 26 BYR eP e e	05 25 21 26 50 31 09	Feb. 27 SPA eP ¹ e ePcP	09 17 55 18 23	Feb. 28 SPA eP	11 20 18	March 1 SPA eP	14 29 19
Feb. 26 SPA eP e e	05 25 06 25 14 28 40	Feb. 27 BYR eP	10 06 52	Feb. 28 SPA eP	14 12 57	March 1 BYR eP	16 22 45
Feb. 26 BYR iP	06 43 15	Feb. 27 BYR iP	10 07 32	Feb. 28 SPA eP	23 18 30 18 36 18 48	March 1 SPA eP	16 23 21
Feb. 26 SPA eP ePcP e	06 43 51 44 24 44 55	Feb. 27 SPA iP	10 08 05	Feb. 28 BYR iP	23 18 37	March 1 SPA eP	17 47 44
Feb. 26 SPA eP	08 33 12	Feb. 27 BYR eP	14 10 07	Feb. 29 BYR eP	00 05 21	March 1 SPA eP	20 10 38 10 45 11 11
Feb. 26 SPA eP	09 27 44	Feb. 27 BYR iP	14 10 50	Feb. 29 SPA eP	00 05 14 05 48	March 1 BYR eP	22 08 01
Feb. 26 BYR eP	15 05 00	Feb. 27 SPA eP ¹ e	14 10 54 11 12	Feb. 29 BYR eP	02 25 04	March 2 SPA eP	07 17 24
Feb. 26 SPA eP	15 05 05	Feb. 27 BYR eP	14 35 36	Feb. 29 SPA eP	07 05 38	March 2 SPA eP	09 04 46
Feb. 26 BYR e(P ¹)	15 33 38	Feb. 27 SPA eP	14 35 40	Feb. 29 SPA eP	11 02 35	March 2 SPA eP	09 06 13
Feb. 26 SPA eP ¹	15 34 02	Feb. 27 BYR e(P)	15 08 31	Feb. 29 SPA e(P)	14 30 10	March 2 SPA eP	09 42 04
Feb. 26 BYR eP	17 29 38				14 59 05	March 2 SPA eP	21 09 14

Date and Station	Phase (GCT)	Date and Station	Phase (GCT)	Date and Station	Phase (GCT)	Date and Station	Phase (GCT)
March 2	h m s		h m s		h m s		h m s
SPA eP	21 36 30	SPA eP ¹ e(SKIP)	04 11 46 14 16	SPA eP e e	02 35 14 35 19 35 33	SPA eP e	11 56 29 56 38
March 3		March 4		March 6		March 8	
BYR eP	01 14 40	SPA eP	04 55 51	SPA eP	03 13 35	BYR eP	14 49 30
SPA eP	01 14 46	March 4		March 6		SPA eP	14 50 03
March 3		SPA eP	18 51 26	March 6		March 8	
SPA eP	02 47 32	March 4		BYR eP	04 01 24	BYR iP	16 44 28
March 3		SPA eP	20 19 15	March 6		epP	45 23
SPA eP	03 36 13	March 4		BYR eP	10 18 52	ePP	46 46
March 3		BYR eP	20 54 45	March 6		ePPP	48 48
SPA eP	03 48 00	March 4		BYR eP	11 42 15	e	50 47
March 3		SPA eP	21 52 38	March 6		eS	53 17
BYR e(P)	04 17 56	March 5		BYR eP	12 03 20	esS	54 38
SPA eP	04 18 27	SPA eP	07 03 25	March 6		eL	56 34
March 3		March 5		SPA eP	15 11 18	i(P'P')	17 12 26
SPA eP	04 33 18	SPA eP	10 22 30	March 6		e	14 25
March 3		March 5		BYR eP	15 24 30	eSKPP'	15 41
BYR e(P')	05 19 07	BYR iP' eSKP	11 44 13 47 29	March 7		SPA iP	16 44 45
March 3		March 5		BYR eP	00 22 33	ePP	47 52
BYR eP	11 33 16	BYR eP	14 02 41	March 7		ePPP	49 00
SPA eP	11 32 49	ePP	06 39	BYR iP	05 26 40	e	50 50
e	32 56	eSKS	12 53	SPA eP	05 26 20	e	52 08
e	33 47			e	27 09	e	52 27
March 3		SPA eP	14 02 24	March 7		eS	53 53
BYR e(P)	14 23 58	e	02 36	BYR eP	06 00 45	epS	54 50
March 3		e	03 18	March 7		e	17 09 50
BYR e(P')	14 34 32	e	03 41	BYR e(P)	08 06 57	e	10 37
March 3		e(S)	12 57	March 7		e	12 01
BYR iP	15 47 39	March 5		BYR eP	09 50 13	eP'P'	12 15
SPA eP	15 48 32	SPA eP	15 32 25	ePP	53 00	e	12 22
e	48 49	March 5		SPA eP	09 50 22	March 8	
epP	49 04	BYR e(P)	16 03 23	e	50 48	SPA iP	19 38 16
March 3		SPA eP	16 03 08	ePP	53 09	March 9	
BYR eP	19 27 56	March 5		March 7		SPA e(P)	12 10 19
SPA iP	19 28 29	BYR e(P)	21 00 32	SPA eP	10 59 09	March 9	
March 3		SPA eP	21 01 13	March 7		SPA eP	13 42 34
BYR e(P)	21 49 15	e	01 31	SPA eP	18 42 13	March 9	
March 3		ePcP	02 06	March 7		SPA eP	14 49 54
BYR eP	23 27 37	March 5		SPA eP	20 28 23	e	50 03
March 4		BYR e(P)	21 06 07	March 7		March 9	
BYR e(P)	01 16 33	SPA e(P)	21 06 40	BYR eP	23 15 27	SPA eP	19 56 15
March 4		e	06 51	March 8		SPA eP	19 56 20
BYR eP'	02 35 16	March 5		SPA eP	07 06 09	e	56 29
March 4		SPA eP	21 33 45	March 8		e	56 37
BYR iP'	04 11 53	March 6		SPA eP	09 52 02	March 9	
iPP	13 37	BYR eP	02 35 32	March 8		SPA eP	21 33 35
				BYR eP	11 55 55	March 9	
				e	58 23	BYR eP	22 18 17
				eS	12 00 01	SPA eP	22 17 03
						March 10	
						iP	00 05 09
						ipP	05 34

Date and Station	Phase (GCT)	Date and Station	Phase (GCT)	Date and Station	Phase (GCT)	Date and Station	Phase (GCT)
	h m s		h m s		h m s		h m s
SPA eP	00 05 49	March 11 BYR eP	01 58 15	March 13 BYR e(P)	14 09 30	March 16 BYR eP	00 39 39
epP	06 19					ePP	40 59
esP	06 39	March 11 BYR e(P)	10 24 18	March 13 BYR e(P)	16 05 45	SPA eP	00 39 22
ePP	08 37					e	39 35
epPP	09 07	March 11 SPA eP	10 32 27	March 13 BYR eP	21 07 42	e	39 51
March 10 BYR eP [†]	00 44 00	March 11 BYR i(P)	11 36 17	March 13 BYR eP	21 57 05	e	40 25
ePP	46 37					e	42 20
SPA ePP	00 46 30	March 11 BYR eP	11 57 53	March 14 BYR eP	00 06 29	March 16 SPA eP	08 12 27
e	47 08						
e(SKIP)	47 35	March 11 BYR e(P)	15 21 32	March 14 BYR eP [†]	01 12 15	March 16 BYR eP	17 50 24
March 10 SPA eP	00 47 49	March 11 SPA eP	21 19 20	March 14 BYR eP	04 33 34	SPA eP	17 50 59
March 10 BYR eP	05 09 06	March 11 SPA eP	22 36 47	March 14 BYR e(P [†])	05 26 54	e	50 05
SPA iP	05 09 37	e	37 07	March 14 BYR eP	08 54 37	e	50 14
ePcP	10 03	March 12 BYR e(P)	01 39 59	SPA eP	08 54 54	March 16 BYR eP	19 02 33
March 10 SPA eP	05 58 50	SPA eP	01 40 29	March 14 BYR eP	10 09 33	March 16 BYR e(P)	19 25 24
March 10 SPA eP	07 14 40	March 12 BYR eP	02 27 25	SPA eP	10 09 11	ePcP	26 52
March 10 SPA eP	07 43 49	e	28 11	March 14 BYR eP	11 01 24	SPA eP	19 25 58
March 10 BYR eP	09 57 00	March 12 SPA eP	06 19 13	March 14 BYR eP	11 01 01	March 16 BYR eP	21 48 58
SPA eP	09 57 08	e	19 23	March 15 SPA eP	04 00 42	e	22 07 39
e	57 16	March 12 BYR eP	12 16 12	March 15 SPA eP	06 37 40	March 16 BYR eP	21 53 13
e	57 25	March 12 BYR iP	13 56 15	March 15 SPA eP	09 40 04	SPA eP	21 53 48
March 10 BYR eP	10 45 56	SPA iP	13 57 00	e	40 18	March 16 BYR e(P)	23 02 35
March 10 SPA eP	12 02 35	e(PcP)	57 59	e	40 29	March 17 BYR iP	01 31 13
March 10 BYR iP	13 55 34	March 12 BYR eP	20 43 12	e	41 07	March 17 BYR eP	11 44 41
SPA iP	13 56 08	e	44 18	e	44 30	SPA eP	11 45 16
e	56 14	eS	53 38	March 15 SPA eP	10 20 14	e	36
ePcP	56 40	e	40	e	20 28	March 17 BYR e(P)	12 14 05
March 10 BYR eP [†]	14 51 51	e(P [†] P [†])	21 07 27	March 15 SPA eP	13 00 18	March 17 BYR e(P)	12 30 15
eSKP	55 11	SPA eP	20 43 13	March 15 BYR eP	19 41 35	e	31 26
SPA eSKP	14 55 14	e	43 41	March 15 BYR eP	20 11 07	March 17 SPA eP	15 51 12
March 10 BYR e(P)	19 30 03	March 12 BYR eP	23 42 56	SPA eP	20 10 38	March 17 BYR iP	16 57 17
March 11 BYR eP	00 18 28	March 13 BYR e(P)	00 33 34	e	10 51	March 17 BYR e(P [†])	20 33 20
March 11 BYR e(P)	00 36 31	March 13 BYR eP	00 56 42	March 17 BYR eP	21 50 08		
March 11 BYR e(P)	01 48 38	March 13 SPA eP	03 10 40				
		March 13 SPA eP	13 31 17				

Date and Station	Phase (GCT)	Date and Station	Phase (GCT)	Date and Station	Phase (GCT)	Date and Station	Phase (GCT)
SPA eP	h m s 21 49 45	March 20 BYR e(P')	h m s 13 56 02	March 22 BYR iP	h m s 00 21 11	March 23 BYR eP	h m s 10 19 16
March 17 BYR e(P)	22 33 59	March 20 BYR eP' 17 26 40		March 22 BYR iP 02 37 31		March 23 BYR e(P')	10 47 59
March 18 BYR eP	00 24 59	e(PP) 29 02		eL 48 14		March 23 BYR e(P')	12 10 10
e 25 40		ePKS 30 23		SPA eP 02 37 21		March 23 BYR e(P')	16 20 16
March 18 BYR eP	06 47 08	March 20 BYR e(P) 18 41 28		ePP 38 07		March 23 BYR e(P')	21 53 29
March 18 BYR iP	10 47 27	March 21 BYR e(P) 00 02 44		e 38 39		March 23 BYR eP'	22 41 47
i 47 32		March 21 BYR e(P) 00 48 12		e 38 52		March 24 BYR e(P')	03 16 18
SPA eP	10 47 39	March 21 BYR eP 00 54 03		e 39 17		March 24 BYR eP'	06 13 36
e 47 43		March 21 BYR eP 02 00 42		eL 44 50		March 24 BYR e(P')	10 15 18
March 18 BYR eP	11 15 03	March 21 BYR e(P') 07 10 53		March 22 BYR e(P')	10 42 10	March 24 BYR e(P')	16 38 05
March 18 BYR eP	12 29 16	March 21 BYR e(P) 08 30 29		SPA iP 12 36 35		March 24 BYR iP	21 06 07
SPA eP	12 29 18	March 21 BYR eP' 09 37 33		March 22 BYR eP 13 54 59		SPA iP 21 06 11	
e 29 34		March 21 BYR iP 11 51 15		iS 14 00 23		epP 06 51	
March 18 BYR eP	12 59 36	SPA eP 11 51 51		SPA eP 13 54 52		March 25 BYR eP	02 39 03
March 18 BYR iP	14 19 57	e 52 10		ePP 55 38		epP 40 30	
SPA eP	14 20 34	e 52 26		e(PPP) 56 06		March 25 BYR eP	07 59 43
March 18 BYR eP	14 47 02	March 21 BYR e(P) 14 50 58		e 56 21		March 25 BYR e(P)	15 30 12
March 18 BYR eP	21 09 56	March 21 BYR i(P) 15 04 56		March 22 BYR iP 20 02 28		March 26 SPA eP	05 25 24
March 18 BYR eP	22 27 49	March 21 BYR i(P) 15 56 44		SPA iP 20 02 10		March 26 BYR e(P)	08 57 13
March 18 BYR eP	22 32 46	March 21 BYR i(P) 16 12 20		e 02 17		March 26 SPA eP	15 31 50
SPA eP	22 33 38	March 21 BYR eP 16 50 22		epP 02 42		March 26 BYR eP	15 33 23
e 33 47		SPA eP 16 50 26		March 23 BYR iP 01 40 07		March 26 BYR eP	15 51 57
March 19 BYR eP	09 34 32	e 50 50		ePP 41 22		e 57 40	
March 19 SPA eP	16 47 12	March 21 BYR i(P) 19 33 04		March 23 BYR eP 01 44 43		SPA eP 15 50 34	
March 19 BYR eP	19 28 43	March 21 BYR iP 19 59 28		March 23 BYR eP 01 46 13		March 26 BYR eP	16 04 16
SPA eP	19 28 25	SPA eP 20 00 07		March 23 SPA eP 04 01 41		March 26 BYR e(P)	18 41 48
e 28 52		e 00 10		March 23 SPA eP 09 44 05			
e 29 15		March 21 BYR eP 23 38 55		March 23 BYR eP 09 49 23			
e 29 47							
e 31 27							
e 31 58							
ePP 32 05							

Date and Station	Phase (GCT)	Date and Station	Phase (GCT)	Date and Station	Phase (GCT)	Date and Station	Phase (GCT)
March 26 BYR eP	h m s 19 43 44	SPA e(P')	h m s 00 30 50	March 29 BYR iP	h m s 08 18 26		h m s
		e	31 26	e	18 41		
March 26 BYR eP	20 37 43	e	32 05	e	20 22		
March 27 BYR eP	04 00 06	March 28 BYR eP	06 47 36	e	23 00		
eS	09 50	SPA eP	06 47 53	SPA eP	08 19 50		
SPA eP	04 00 20	e	47 57	e	37 18		
e	00 29	e	48 21				
e	00 38	March 28 BYR e(P)	06 51 16	March 29 BYR eP	15 42 58		
e	00 56	March 28 BYR e(P)	06 54 24	March 29 BYR e(P)	18 18 59		
March 27 BYR eP	09 09 35	SPA eP	06 54 38	SPA eP	18 19 33		
e(S)	19 41	e	54 44	March 29 BYR eP	22 22 56		
SPA eP	09 09 49	e	54 58	SPA eP	22 22 52		
e	10 00	March 28 BYR e(P)	07 57 47	eS	23 03		
e	10 07	March 28 BYR eP	08 07 37	e	15		
e	10 32	March 28 BYR eP	09 57 51	March 30 BYR e(P)	03 01 24		
e	15 08	March 28 BYR eP	12 48 50	March 30 BYR eP	09 49 27		
March 27 BYR eP	09 49 15	e	49 06	March 30 BYR eP	09 51 57		
March 27 BYR e(P)	12 34 40	ePcP	49 16	March 30 BYR eP	10 04 01		
March 27 SPA eP	13 28 29	e	49 54	March 30 BYR eP	11 01 23		
March 27 BYR eP	17 34 14	March 28 BYR iP	13 03 17	March 30 BYR e(P)	14 25 00		
SPA eP	17 34 47	March 28 BYR eP'	21 08 22	March 30 BYR eP	15 30 07		
e	34 53	March 29 BYR eP	00 19 55	March 31 BYR eP'	00 58 03		
ePcP	35 34	SPA iP	00 20 30	March 31 BYR e(P')	03 21 21		
March 27 BYR eP	19 47 03	e	20 38	March 31 BYR e(P)	03 42 27		
SPA eP	19 47 16	e	20 58	March 31 BYR eP	03 51 20		
e	23	March 29 BYR eP	06 24 00	March 31 BYR eP	04 26 29		
March 27 BYR iP	23 36 27	e	24 48	March 31 BYR eP	15 16 28		
epP	37 20	e	25 31	March 31 BYR e(P)	18 20 30		
ePP	38 31	e	27 18	March 31 BYR e(P')	21 51 56		
SPA iP	23 37 11	e	28 36				
e	37 33	SPA eP	06 25 33				
e	37 45	March 29 BYR iP	06 42 14				
e	37 55	ePP	44 42				
epP	38 10	SPA eP	06 42 30				
e(PcP)	38 31	e	42 33				
e	39 11	e	43 22				
e(PP)	39 21	ePP	45 12				
eScP	41 50	eS	52 01				
eS	44 13						
e(sS)	46 27						
March 28 BYR eP	00 26 37						
e(P')	31 05						