RGO ASTRONOMICAL INFORMATION SHEET No. 74

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for the Particle Physics and Astronomy Research Council

ASTRONOMICAL AND CALENDARIAL DATA SHEET FOR 1999

PHASES OF THE MOON

New Moon				First Quarter				Full Moon				Last Quarter			
	d	h	m		d	h	m		d	h	m		d	h	m
								Jan.	2	02	49	Jan.	9	14	22
Jan.	17	15	46	Jan.	24	19	15	Jan.	31	16	06	Feb.	8	11	58
Feb.	16	06	39	Feb.	23	02	43	Mar.	2	06	58	Mar.	10	08	40
Mar.	17	18	48	Mar.	24	10	18	Mar.	31	22	49	Apr.	9	02	51
Apr.	16	04	22	Apr.	22	19	01	Apr.	30	14	55	May	8	17	28
May	15	12	05	May	22	05	34	May	30	06	40	June	7	04	20
June	13	19	03	June	20	18	13	June	28	21	37	July	6	11	57
July	13	02	24	July	20	09	00	July	28	11	25	Aug.	4	17	27
Aug.	11	11	08	Aug.	19	01	47	Aug.	26	23	48	Sept.	2	22	17
Sept.	9	22	02	Sept.	17	20	06	Sept.	25	10	51	Oct.	2	04	02
Oct.	9	11	34	Oct.	17	15	00	Oct.	24	21	02	Oct.	31	12	04
Nov.	8	03	53	Nov.	16	09	03	Nov.	23	07	04	Nov.	29	23	18
Dec.	7	22	32	Dec.	16	00	50	Dec.	22	17	31	Dec.	29	14	04

SEASONS

				d	h	m
Vernal Equinox	—	Spring begins	Mar.	21	01	46
Summer Solstice	—	Summer begins	June	21	19	49
Autumnal Equinox	—	Autumn begins	Sept.	23	11	31
Winter Solstice	—	Winter begins	Dec.	22	07	44

SUMMER TIME

In the United Kingdom BST, one hour in advance of GMT, will be kept from March $28^d\ 01^h$ to October $31^d\ 01^h$ GMT.

ECLIPSES

1. An annular eclipse of the Sun on February 16 is visible as a partial eclipse from the South Atlantic Ocean, southern Africa, the Indian Ocean, Indonesia, Malaysia, the southern Philippines, Antarctica and Australasia. The eclipse begins at $03^h\ 52^m$ and ends at $09^h\ 15^m$. The annular phase begins in the South Atlantic Ocean south west of South Africa at $04^h\ 57^m$ crosses the Southern Indian Ocean and western and northern Australia and ends at $08^h\ 10^m$ in the Pacific Ocean, south east of Papua New Guinea. The maximum duration of the annular phase is $01^m\ 16^s$.

2. A partial eclipse of the Moon on July 28 is visible from part of Antarctica, southern and western parts of South America, Central America, the western parts of North America except northern Alaska, the Pacific Ocean, Australasia and the eastern part of Asia. The eclipse begins at $10^h\ 22^m$ and ends at $12^h\ 46^m$. The time of maximum eclipse is $11^h\ 34^m$, when 0·40 of the Moon's diameter is obscured.

3. A total eclipse of the Sun on August 11. The path of totality begins in the North Atlantic Ocean south of Nova Scotia crosses Central Europe (including extreme south-west Britain), passes through Iran, Pakistan, central India and ends in the Indian Ocean off the north-east coast of India. The partial phase is visible from the north-eastern part of North America, the North Atlantic Ocean, Europe (including the British Isles), northern Africa, Asia except the eastern part and the North Indian Ocean. The eclipse begins at $08^h\ 26^m$ and ends at $13^h\ 40^m$, the total phase begins at $09^h\ 30^m$ and ends at $12^h 36^m$. The maximum duration of totality is $02^m\ 27^s$.

All times are in GMT

CYH/SAB

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CALENDAR 1999

CHRONOLOGICAL CYCLES AND ERAS

Dominical Letter	C	Julian Period (year of)	6712
Epact	13	Roman Indiction	7
Golden Number (Lunar Cycle)	V	Solar Cycle	20

Era	Year	Begins	Era	Year	Begins
Byzantine	7508	Sept. 14	Grecian (Seleucidæ)	2311	Sept. 14
Roman (AUC)	2752	Jan. 14			(or Oct. 14)
Nabonassar	2748	Apr. 24	Indian (Saka)	1921	Mar. 22
Japanese	2659	Jan. 1	Diocletian	1716	Sept. 12

RELIGIOUS CALENDARS

Epiphany	Jan. 6	Low Sunday	Apr. 11
Septuagesima Sunday	Jan. 31	Rogation Sunday	May 9
Quinquagesima Sunday	Feb. 14	Ascension Day—Holy Thursday	May 13
Ash Wednesday	Feb. 17	Whit Sunday—Pentecost	May 23
Quadragesima Sunday	Feb. 21	Trinity Sunday	May 30
Fourth Sunday in Lent—Mothering Sunday	Mar. 14	Corpus Christi	June 3
Palm Sunday	Mar. 28	First Sunday in Advent	Nov. 28
Good Friday	Apr. 2	Christmas Day (Saturday)	Dec. 25
Easter Day	Apr. 4		

First Day of Passover (Pesach)		Apr. 1	Day of Atonement (Yom Kippur)	Sept. 20
Feast of Weeks (Shavuot)		May 21	First day of Tabernacles (Succoth)	Sept. 25
Jewish New Year (Rosh Hashanah)	5760	Sept. 11		
Islamic New Year	1420	Apr. 17	First day of Ramadân	Dec. 9

All Jewish and Islamic dates above are tabular dates, which begin at sunset on the previous evening and end at sunset on the date tabulated. In practice, the dates of Islamic fasts and festivals are determined by an actual sighting of the appropriate new Moon.

CIVIL CALENDAR—UNITED KINGDOM

Accession of Queen Elizabeth II	Feb. 6	Coronation Day	June 2
St David (Wales)	Mar. 1	Birthday of Prince Philip, Duke of Edinburgh	June 10
Commonwealth Day	Mar. 8	The Queen's Official Birthday*	June 12
St Patrick (Ireland)	Mar. 17	Remembrance Sunday	Nov. 14
Birthday of Queen Elizabeth II	Apr. 21	Birthday of the Prince of Wales	Nov. 14
St George (England)	Apr. 23	St Andrew (Scotland)	Nov. 30

*Date subject to confirmation

HOLIDAYS IN THE UNITED KINGDOM

The following list contains bank holidays, (compiled from the *Banking and Financial Dealings Act 1971*), common law holidays and days to be given in lieu for holidays which fall on a weekend. Dates given in *italic* are those which are subject to Royal proclamation. There is no statutory requirement for a day to be given in lieu if one of the days falls at the weekend and is not covered by the act. In such cases probable dates are given in *italic* when they have not yet been authorised by Royal proclamation.

	England and Wales	**Northern Ireland**	**Scotland**
New Year	*Jan. 1*	*Jan. 1*	Jan. 1 Jan. 2# *Jan. 4*
St Patrick	—	Mar. 17	—
Good Friday	Apr. 2‡	Apr. 2 ‡	Apr. 2
Easter Monday	Apr. 5	Apr. 5	—
May Day	*May 3*	*May 3*	*May 31*
Spring	May 31	May 31	May 3
Battle of the Boyne	—	July 12	—
Summer	Aug. 30	Aug. 30	Aug. 2
Christmas	Dec. 25 ‡# *Dec. 28*	Dec. 25‡# *Dec. 28*	Dec. 25# *Dec. 28*
Boxing Day	Dec. 26 † *Dec. 27*	Dec. 26† *Dec. 27*	Dec. 26† *Dec. 27*
Millennium (Friday)	*Dec. 31*	*Dec. 31*	*Dec. 31*

‡ Common Law Holiday # Holiday falls on a Saturday † Holiday falls on a Sunday

Warning: Clauses in the *Banking and Financial Dealings Act* allow the Government to alter dates at short notice.