

ἌΤΛΑΣ ΟΥΡΑΝΙΟΣ

The COELESTIAL ATLAS;

Or, A New

EPHEMERIS

For the YEAR of our LORD 1769.

Being the First after

BISSEXTILE, or LEAP-YEAR.

Wherein are contained

The Heliocentrick and Geocentrick Places of the Planets, the ECLIPSES of the Luminaries, and other remarkable PHENOMENA that will happen this Year.

Carefully computed

From the genuine TABLES of Dr. *Edmund Halley*, late Regius Professor of ASTRONOMY, and *Savilian* Professor of GEOMETRY in the University of *Oxford*.

A L S O

A Compleat ALMANACK, containing the FEASTS and FASTS of the Church of *England*; the Times of the LUNATIONS; the Rising and Setting of the Sun, Moon, and Planets, &c.

Adapted to the

Meridian and Latitude of the ancient and honourable CITY of LONDON.

To which are added,

Several useful TABLES: As, a TABLE of the Sun's Declination; a TABLE by which the Times of the Sun's Rising and Setting may be known by Inspection, on every Day in the Year, and in any Part of *Great-Britain* or *Ireland*; a TIDE-TABLE, and a very correct one of the Eclipses of *Jupiter's* first Satelles; and, lastly, an exact TABLE of the Rising, Southing, and Setting of 30 of the most remarkable fixed Stars: Taken from Mr. *Flamsted's* Catalogue.

By ROBERT WHITE,

Teacher of the Mathematicks.

Οἱ ἄγαθοὶ διγυῖνται δόξαν Θεῶν.

The TWENTIETH IMPRESSION.

LONDON:

Printed by T. PARKER, for the Company of

STATIONERS,

[PRICE NINE PENCE stitched.]



Chronological Notes for the Year 1769.

Golden Number	3		Septuagesima Sun. Jan. 22
Cycle of the Sun	14		Shrove Sunday Feb. 5
The Epact	22		Easter Day March 26
Dominical Letter	A		Whit-Sunday May 14
Number of Direction	5		Trinity-Sunday May 21
Roman Indiction	2		Advent-Sunday Dec. 3

Astronomical CHARACTERS explained.

♈ Aries	♋ Cancer	♎ Libra	♏ Capricorn
♉ Taurus	♌ Leo	♍ Scorpio	♐ Aquarius
♊ Gemini	♍ Virgo	♎ Sagittary	♑ Pisces

♄ Saturn	☉ Sol (the Sun)	☾ Luna (the Moon)	♁ Tellus, Terra (or the Earth)
♃ Jupiter	♀ Venus	♁ Moon's N. Node	
♂ Mars	☿ Mercury	♁ her S. Node	

- ♄ Conjunction when Planets are in the same Sign, Deg. Min. & c.
 * Sextile when 2 Signs dist. | Δ Trine when 4 Signs dist.
 □ Quartile when 3 Signs dist. | ♂ Opposition when 6 Signs dist.

Of the Four Quarters of the YEAR 1769.

THE Spring Quarter begins on the 20th Day of *March*, at 33 Minutes past 7 in the Morning. Apparent Time.
 The Summer Quarter begins *June* 21st, 21 Minutes after 6 in the Morn.
 The Autumnal Quarter begins *September* 22d, 1 Minute past 8 at Night.
 The Winter Quarter begins on the 21st Day of *December*, 45 Minutes after 11 in the Morning.

THE beautiful Planet **VENUS** is an Evening Star until the 3d Day of *June*; and after that Time, she becomes a Morning Star, to the End of the Year.

JUPITER is a Morning Star until the 8th Day of *May*, and after that Time is an Evening Star, until the 25th Day of *November*; after which Time he will be a Morning Star again, to the Year's End.

A TABLE of the Longitudes, Latitudes, and Magnitudes, of the most remarkable Fixed Stars that the Moon can eclipse or make a near Approach unto; taken from Mr. Flamsteed's Historia Cœlestis, and rectified to the Beginning of the Year 1760.

Constellations.	Right Ascension.	Longitude.			Latitude.	Magni.
		°	'	"		
♈	γ	47 37	2 9 44B.	4		4.3
	δ	14 10 31	1 4 7B.	4		3
	ε	16 30 33	0 12 25A.	4		3
♉	α	23 27 40	5 21 7B.	4		4
	β	17 28 38	1 47 34B.	4		1
	γ	26 38 28	4 0 37B.	3		4
♊	π	2 25 54	5 46 22A.	3		2
	ρ	5 5 51	2 35 58A.	3.4		3.4
	σ	6 25 20	5 29 49A.	1		4
♋	ι	13 25 56	1 14 34A.	4		4
	κ	19 12 16	5 21 34B.	2		4
	λ	21 25 48	2 14 21A.	3		3
♌	μ	1 56 30	0 51 22A.	3		3
	ν	3 26 40	3 6 3A.	4		2
	ξ	5 44 38	6 47 19A.	2.3		4
♍	ζ	6 34 57	2 1 30B.	3		1
	η	11 37 51	2 5 27A.	3.4		4
	θ	15 9 36	0 13 7A.	3		3
♎	ι	19 54 29	6 39 27B.	2		3
	κ	4 11 20	3 9 41B.	4		4
	λ	5 22 0	0 3 46B.	4		4.3
♏	μ	18 18 4	3 11 22A.	4		4
	ν	20 54 28	3 46 50A.	3.4		4
	ξ	24 32 44	4 0 20B.	3.4		4
♐	π	25 57 24	3 56 18A.	4		3
	ρ	26 29 40	0 56 38B.	1		4
	σ	3 2 10	0 7 48B.	4		3
♑	τ	18 9 22	0 34 4A.	4		4
	υ	23 44 34	0 40 47B.	3		4
	φ					
♒	χ	0 0 37	5 0 22B.	4.3		3
	ψ	1 29 12	1 22 18B.	3		3
	ω	6 50 31	2 50 53B.	3		
♓	θ	14 52 43	1 45 29B.	4		4
	α	20 29 41	2 1 39A.	1		1
	β	1 9 0	2 55 40B.	4		4
♈	ζ	11 45 0	0 22 51B.	2		2
	η	21 47 17	4 25 27B.	3.4		3.4
	ι	24 0 58	4 2 52B.	4		4
♉	κ	26 31 24	3 30 4B.	4		4
	λ	27 8 5	0 7 50B.	4		4
	μ	29 14 10	1 56 31A.	3		3
♊	ν	29 35 4	5 25 46A.	3		3
	ξ	29 51 16	1 3 9B.	2		2
	π	1 18 31	1 40 50B.	4		4
♋	α	6 24 24	4 31 26A.	1		1
	β	8 6 16	6 4 23A.	4		4
	γ	27 54 7	0 55 51A.	3		3
♌	δ	1 12 32	5 2, 21A.	3		3
	ε	2 58 10	2 4 1A.	4		4
	ζ	9 1 31	1 22 72A.	4.3		4.3
♍	η	11 28 30	5 1 2A.	4		4
	θ	11 39 6	0 54 38B.	4		4
	ι	12 55 3	1 28 59B.	4		4
♎	κ	0 42 17	4 37 27B.	3		3
	λ	18 26 2	2 31 18A.	4		4
	μ	20 11 34	2 32 19A.	3		3
♏	ν	25 22 27	2 3 15A.	4		4
	ξ	29 54 4	2 43 47B.	4		4
	π					

I have inserted this Table to oblige the Curious. If 50 Seconds be added for every succeeding, and subtracted for every preceding Year, the Longitudes may be found at all Times, and the Latitudes vary not.

A TABLE of the Difference of Meridians in Time, from the Royal Observatory near LONDON, and of the Latitudes of several famous Cities, and other remarkable Places. Taken from *Dr. Halley's Tables.*

NAMES of PLACES.	D ff. Mer.			Alt. of Pole.			
	n.	m.	l.	d.	m.	l.	
Alexandria in Egypt	2	1	6	A.	31	7	C N.
Athens in Greece	1	35	30	A.	38	5	C N.
Babylon in Egypt, Grand Cairo	2	5	45	A.	30	2	30 N.
Berlin in Brandenburg	0	53	50	A.	52	33	0 N.
Cape of Good Hope in Africa	1	8	0	A.	34	15	0 S.
Cadiz in Spain	0	24	28	S.	36	33	30 N.
Carthagena in America	5	0	46	S.	10	26	0 N.
Copenhagen in Denmark	0	51	0	A.	55	40	45 N.
Dantzick in Poland	1	15	12	S.	54	22	0 N.
Illand of St. Helen	0	24	0	S.	15	55	0 S.
Jerusalem	2	21	20	A.	31	55	0 N.
London at St. Paul's	0	0	20	S.	51	30	40 N.
Lisbon in Portugal	0	36	50	S.	38	42	30 N.
Moscow in Russia	2	41	20	A.	55	36	0 N.
Naples in Italy	0	58	40	A.	40	50	45 N.
Observatory at Greenwich	0	0	0	—	51	28	30 N.
Observatory at Paris	0	9	20	A.	48	50	10 N.
Oxford	0	5	4	S.	51	45	0 N.
Petersburg in Russia	2	1	20	A.	60	0	0 N.
Pekin in China	7	45	20	A.	39	54	0 N.
Porto Bello in America	5	19	20	S.	9	33	5 N.
Prague in Bohemia	0	59	0	A.	50	4	30 N.
Rome, the Metropolis of Italy	0	50	0	A.	41	54	0 N.
Rochelle in France	0	5	4	S.	46	9	43 N.
Smyrna in Turkey	1	49	19	A.	58	28	7 N.
Teneriff Mountain	1	6	12	S.	28	23	27 N.
Terra del Gada in Madagascar	2	58	0	A.	19	29	C S.
Tornea in Lapland	1	35	15	A.	65	50	50 N.
Venice in Italy	0	48	18	A.	45	25	C N.
Vienna in Aultria	1	5	30	A.	48	12	48 N.
Upsal in Sweden	1	11	0	A.	59	51	50 N.

A TABLE of the **KINGS and **QUEENS** of England
since the Conquest.**

Kings and Queens.	Born A. D.	Began their Reign.	Reigned Y. M. D.	Age.	Rem. Deaths and Depthron.	Where Buried.
Will. Conq.	1027	1066 Oct. 14	20 10 20	60	Bur'd by Leap.	Caen, Norm
Will. Rulus	1057	1087 Sept. 9	12 10 24	43	Slain acciden- tally.	Wincheſter
Henry I	1058	1100 Aug. 2	35 4 0	77		Reading
Stephen	1105	1135 Dec. 1	18 10 24	49		Feverſham
Henry II	1134	1154 Oct. 25	34 8 12	55	Slain with an Arrow.	Fonteverau
Richard I	1151	1189 July 6	9 9 0	43		Fonteverau
John	1166	1199 April 6	17 6 13	50		Worceſter
Henry III	1207	1216 Oct. 19	56 0 28	65		Westminſter
Edward I	1239	1272 Nov. 16	34 7 21	67		Westminſter
Edward II	1284	1307 July 7	19 6 13	43		Glouceſter
Edward III	1312	1327 Jan. 20	50 5 1	65		Westminſter
Richard II	1366	1377 June 21	22 3 8	33	Dep. & murd.	Westminſter
Henry IV	1367	1399 Sept. 29	23 5 21	46		Canterbury
Henry V	1389	1413 Mar. 20	9 5 11	33		Westminſter
Henry VI	1421	1422 Aug. 31	38 6 4	49	Dep. & murd.	Windfor
Edward IV	1442	1461 Mar. 4	22 1 5	41		Windfor
Edward V	1471	1483 April 9	0 2 15	12	Murder'd.	Not known
Richard III	1443	1483 June 22	2 2 0	42	Slain in Battle.	Leiceſter
Henry VII	1457	1485 Aug. 22	23 8 0	52		Westminſter
Henry VIII	1492	1509 April 22	37 9 6	55		Windfor
Edward VI	1537	1547 Jan. 28	6 5 9	15		Westminſter
Mary I	1510	1553 July 6	5 4 11	42	Died of Grief.	Westminſter
Elizabeth	1533	1558 Nov. 17	44 4 7	69		Westminſter
James I	1566	1603 Mar. 24	22 6 3	58		Westminſter
Charles I	1600	1625 Mar. 27	23 10 3	48	Murder'd by Villains.	Winfor
Charles II	1630	1649 Jan. 30	36 0 7	54		Westminſter
James II	1633	1685 Feb. 6	4 0 7	67	Abdicated.	St. Germain
Mary II	1662	1689 Feb. 13	5 10 1	32		Westminſter
William III	1650	1689 Feb. 13	13 0 23	52	Kill'd by a Fall from his Horſe.	Westminſter
Anne	1665	1702 Mar. 8	12 4 24	49		Westminſter
George I	1660	1714 Aug. 1	12 10 10	67		Hanover
George II	1683	1727 June 11	33 4 14	77		Westminſter
George III	1738	1760 Oct. 25	Whom God proſper.			

All hail! Great GEORGE renowned Prince of Might,
Our King by Providence, and laſful Right,
Rome's fatal Foe, and Proteſtant's Delight,
May Peace and Plenty all your Days remain,
And *Nefſor's* Years conclude your happy Reign.

A TABLE of the most Reverend Right Reverend and Reverend, the Bishops and Deans, exercising Ecclesiastical Jurisdiction, 1769.

Bishops	Sees	Date Succeeded	Deans
H. Dr. F. Cornwallis Arch-Bishop	Litch. & Cov.	1749 Smallbroke de.	Dr. John Potter
	Canterb. A. B.	1768 Secker deceas.	
H. Dr. R. Drummond Arch. Bishop	St. Asaph	1748 Lisle transl.	Dr. J. Fountayne
	Salisbury	1761 Thomas transl.	
	York A. B.	1761 Gilbert deceas.	Rt. Rev. Dr. Thomas Newton.
Dr. Rich. Terrick	Peterborough	1757 Thomas transl.	
	London	1764 Osbaldeston de.	H. D. Spen. Cowper
Hon. Dr. R. Trevor	St. David's	1744 Willes transl.	
	Durham	1752 Butler deceas.	Rt. Rev. Dr. Jonathan Shipley.
	Peterborough	1747 Clavering dec.	
Dr. John Thomas	Salisbury	1757 Gilbert transl.	Rt. Rev. Dr. Jonathan Shipley.
	Winchester	1761 Hoadley dec.	
	Landaff	1738 Harris deceas.	Dr. Hugh Thomas
Dr. Matt. Mawson	Chechester	1740 Hare deceas.	
	Ely	1754 Gooch deceas.	Ld. Fr. Seymour
Dr. Edward Wiles	St. David's	1742 Clagget transl.	
	Bath & Wells	1743 Wynn deceas.	Dr. Fran. Webber
Lord J. Beauclerk	Hereford	1746 Egerton deceas.	
	Bangor	1747 Hutton transl.	Dr. B. Newcome
Dr. Zachary Pearse	Recheester	1756 Wilcox dec.	
Dr. Edmund Keene	Chester	1752 Peploe deceas.	Dr. Will. Smith
	Gloucester	1752 Benson deceas.	
Dr. James Johnson	Worcester	1759 Maddox deceas.	Sir. R. Wrottesley
Sir W. Ashburnham	Chichester	1754 Mawson transl.	
	Landaff	1755 Cresset dec.	Tho. Ball, M. A.
Dr. Ric. Newcome	St. Asaph	1761 Drummond tr.	
	Bristol	1756 Conybeare dec.	Dr. Will. Herring
	Oxford	1758 Secker tr.	
Dr. John Hume	Salisbury	1766 Thomas tr.	Dr. Tho. Green
	Bangor	1756 Pearse transl.	
Dr. John Egerton	Litch. & Cov.	1768 Cornwallis tr.	Dr. J. Addenbrook
	Bristol	1758 Hume transl.	
Dr. Philip Yonge	Norwich	1761 Hayter transl.	Dr. Philip Lloyd
Dr. Will. Warburton	Gloucester	1759 Johnston transl.	
	Landaff	1761 Newcomb transl.	Dr. Josiah Tucker
Dr. John Ewer	Bangor	1768 Egerton transl.	
Dr. John Green	Lincoln	1761 Thomas transl.	Dr. Thom. Lloyd
Dr. Thomas Newton	Bristol	1761 Yonge transl.	
Dr. Cha. Lyttelton	Carlisle	1762 Osbaldeston tr.	Hon. John York
Hon. Dr. Fred Keppel	Exeter	1762 Lavington dec.	
Dr. Robert Lamb	Peterborough	1764 Terrick transl.	Dr. Tho. Wilson
	St. David's	1766 Squire deceas.	
Dr. Robert Lowth	Oxford	1765 Hume transl.	Dr. Jer. Milles
Dr. Charles Moss	St. David's	1766 Lowth transl.	
Dr. Jonat. Shipley	Landaff	1768 Ewer transl.	Dr. Ch. Tarrant
	Westminster	1768	
Dr. Mark Hildesley	Sodor & Mann	1755 Wilson deceas.	Dr. W. Markham
	Windfor	1765	
			J. Morgan B. DPr.
			J. Fulham A. M.
			Dr. John Thomas
			Rt. Rev. Dr. Fred. Keppel.

The Names of the Learned Judges of the Law.

The Rt. Hon. Charles Lord *Camden*, Lord High Chancellor of England.
 Rt. Hon. Sir *Thomas Sewell*, Knt. Master of the *Rolls*.
 In the *King's Bench*. The *Common Pleas*. The *Exchequer*.
 Rt. Hon. *William* Ld. Rt. Hon. Sir *J. Eardly* Sir *Thomas Parker*,
Mansfield, L. C. J. *Wilmot*, Knt. L. C. J. Lord Chief Baron,
 Sir *Joseph Yates*, Sir *Edward Clive*, Knt. Sir *S. Stafford Smythe*,
 Sir *Richard Afton*. Hon. *Hen. Batbursff*, E'q; Sir *Rich. Adams*, Knt.
Edward Wines, Esq; Sir *Henry Gould*, Knt. *George Perrott*, Esq;
William de Grey, Esq; Attorney-General.
John Dunning, Esq; Solicitor-General.

A TABLE of TERMS and their RETURNS:

Hilary Term begins *Jan. 23*, ends *Feb. 13*.

Returns or Essoign-days.	Exc.	Ret.	Ap	W. D.
In eight Days of <i>St. Hilary</i> , <i>Jan. 20</i>	21	22	23	Mond.
From the Day of <i>St. Hilary</i> in 15 Days, 27	28	29	30	Mond.
On the Morrow of the Purif. Blessed <i>Mary</i> , <i>Feb. 3</i>	4	5	6	Mond.
In eight Days of the Purif. of Blessed <i>Mary</i> , 9	10	11	12	Mond.

Easter Term begins *April 12*, ends *May 8*.

From the Day of <i>Easter</i> in 15 Days, <i>April 9</i>	10	11	12	Wedn.
From the Day of <i>Easter</i> in 3 Weeks, 16	17	18	19	Wedn.
From the Day of <i>Easter</i> in 1 Month, 23	24	25	26	Wedn.
From the Day of <i>Easter</i> in 5 Weeks, 30	M 1	2	3	Wedn.
On the Morrow of the <i>Ascension</i> , <i>May 5</i>	6	7	8	Mond.

Trinity Term begins *May 26*, ends *June 14*.

On the Morrow of the Holy <i>Trinity</i> , <i>May 22</i>	23	24	26	Friday
In eight Days of the Holy <i>Trinity</i> , 28	29	30	31	Wedn.
In 15 Days of the Holy <i>Trinity</i> , <i>June 4</i>	5	6	7	Wedn.
In 3 Weeks of the Holy <i>Trinity</i> , 11	12	13	14	Wedn.

Michaelmas Term begins *Nov. 6*, ends *Nov. 28*.

On the Morrow of All <i>Souls</i> , <i>Nov. 3</i>	4	5	6	Mond.
On the Morrow of <i>St. Martin</i> , 12	13	14	15	Wedn.
In eight Days of <i>St. Martin</i> . 18	19	20	21	Tuefd.
In 15 Days of <i>St. Martin</i> , 25	26	27	28	Tuefd.

N. B. No Sittings in *Westminster-Hall* on *Ascension-day*, *Midsummer-day*, and the 2d of *February*.

The *Exchequer* opens eight Days before any Term begins, except *Trinity*, before which it opens but four Days.

Note. The first and last Days of every Term, are the first and last Days of Appearance.

January hath XXXI Days.

White

The LUNATIONS.

New Moon the 8th Day, 27 M nutes a'ter 2 in the Morning.
First Quarter the 15th Day, 58 M nutes past 7 in the Morning.
Full Moon on the 22d Day, 25 Minutes after 3 in the Morning.
Last Quarter the 29th Day, 56 M nutes past 7 at N ght.

M D.	Sundays & other Remarks or Days.	Sun rises.	Sun sets.	Dec. ☉ South.	Dec. ☾ South.	Moon rises.	Moon Set.	Clock next Sun	
A 1	S. aft. Christm.	Circumcision.		12 58	15 21	1 M 44	6 M 38	4 22	
2		8 4	3 56	22 53	18 53	2 53	7 21	4 50	
3		8 3	3 57	22 47	21 40	3 59	8 7	5 18	
4		8 2	3 58	22 41	23 30	5 2	8 56	5 45	
5	Old Christ. D. v.	8 1	3 59	22 34	24 18	6 1	9 45	6 12	
6	Epiphany.	8 0	4 0	22 26	22 56	6 50	10 36	6 38	
7		7 59	4 1	22 19	22 44	7 32	11 30	7 4	
A 8	S. aft. Epiph.	7 58	4 2	22 10	19 44	☽ sets.	0 A 18	7 29	
9	Plow Monday.	7 57	4 3	22 1	16 0	5 A. 56	1 7	7 54	
10		7 56	4 4	21 35	11 23	7 11	1 56	8 19	
11		7 55	4 5	21 43	6 24	8 27	2 42	8 43	
12	Old N. Years Day.	7 54	4 6	21 33	0 54	9 45	3 29	9 7	
13	Camb. Term beg.	Hilary.		21 23	4 N. 44	11 4	4 18	9 30	
14	Oxf. Term beg.	7 52	4 8	21 12	10 10	Morn.	5 6	9 52	
A 15	2 Sun. aft. Epiph.	7 51	4 9	21 1	15 8	0 24	5 57	10 12	
16		7 50	4 10	20 50	19 20	1 47	6 52	10 32	
17	O. Twelfth Day.	7 49	4 11	20 38	22 24	3 8	7 51	10 51	
18	Q. Char. E. D. kept.	7 48	4 12	20 26	24 4	4 25	8 51	11 10	
19		7 46	4 14	20 13	24 17	5 31	9 52	11 28	
20	Fabian B. & M.	7 45	4 15	20 0	22 36	6 22	10 50	11 46	
21	Agnes V. & M.	7 44	4 16	19 46	19 40	7 1	11 46	12 3	
A 22	Septuag. Sunday.	7 42	4 18	19 32	15 36	☽ rises.	Morn.	12 19	
23	Term begins.	7 41	4 20	19 18	10 52	6 A. 30	0 40	12 34	
24		7 39	4 21	19 4	5 44	7 46	1 28	12 48	
25	Conv. St. Paul.	7 37	4 23	18 49	0 28	8 58	2 14	13 2	
26		7 36	4 24	18 34	4 S. 41	10 9	2 58	13 15	
27		7 34	4 26	18 18	9 33	11 18	3 41	13 27	
28		7 32	4 28	18 2	13 54	Morn.	4 23	13 38	
A 29	Exages. Sunday.	7 30	4 30	17 46	17 42	0 26	5 7	13 48	
30	K. Char. I. Mart.	7 28	4 32	17 30	20 44	1 35	5 51	13 57	
31		7 27	4 33	17 13	22 58	2 41	6 40	14 6	
Days	Day increas.	Length of Day.	Helio. Plac. ♄	Helio. Plac. ♃	Helio. Plac. ♉	Helio. Plac. ☉	Helio. Plac. ♀	Helio. Plac. ♀	Saturn rises.
1	0 8	7 52	14 26	8 11 29	03 11	11 28	6 V 20	19 M 32	4 A 3
7	0 18	8 2	14 39	8 57	30 16	17 35	15 54	6 ♄ 17	Sets.
13	0 30	8 14	14 53	9 25	16 19	23 42	25 29	22 47	7 M 29
19	0 44	8 28	15 6	9 52	19 29	49 58	4 9 V 4	7 2	
25	1 2	8 46	15 20	10 20	22 20	58 55	14 41	28 0	6 35

sefo

January 1763.

Days	Daylig. b gins.	Dayl g ends.	Durat. Twilig.	Node Day	Lat. ♄ South.	Lat. ♃ North.	Lat. ♀ North.	Lat. ♁ South.	Lat. ♀ South.		
1	5 59	6 1	2 10	2 4	1 3	1 3	1 14	1 48	0 10		
	5 56	6 4	2 9	2 26	1 3	1 3	1 19	1 42	0 50		
13	5 54	6 8	2 7	2 2	1 4	1 4	1 27	1 33	1 27		
19	5 46	6 14	2 5	1 44	1 4	1 4	1 27	1 20	1 48		
25	5 29	6 21	2 2	1 24	1 5	1 5	1 20	1 5	2 2		
Days	(°) m.	W ^o .	☾ ☽	☾ Lat	♄ R	♃	♀	♁	♀	♁	♄
A	11 28	29	28 20	45.48	14 48	16 59	3 45	16 2	25 37		
2	12 29	40	10 M 12	4 14	14 43	17 8	4 4	17 16	27 5		
3	13 30	51	2 2	3 50	14 38	17 18	4 25	18 29	28 34		
4	14 32	1	3 57	2 36	14 33	17 27	4 47	9 43	OV 4		
5	15 33	11	5 58	1 32	14 28	17 37	5 9	20 57	1 34		
6	16 34	20	8 9	0 29	14 23	17 47	5 32	22 10	3 5		
7	17 35	20	10 V 32	ON. 40	14 18	17 57	5 58	23 24	4 37		
A	18 36	38	23 10	1 48	14 13	18 6	6 18	24 37	6 9		
9	19 37	47	6 W 2	2 52	14 8	18 15	6 42	25 50	7 42		
10	20 38	55	19 9	2 47	14 4	18 25	7 6	27 2	9 15		
11	21 40	4	2 X 30	4 32	13 59	18 34	7 30	28 15	10 48		
12	22 41	12	16 4	5 2	13 54	18 43	7 54	29 28	12 22		
13	23 42	19	29 40	5 31	13 49	18 52	8 20	30 X 40	13 56		
14	24 43	26	13 V 46	5 10	13 44	19 0	8 45	1 53	15 31		
A	25 44	32	27 60	4 47	13 39	19 0	9 0	11 3	17 7		
16	26 45	37	10 1	4 6	13 35	19 17	9 36	4 18	18 43		
17	27 46	42	16 19	3 9	13 30	19 25	10 2	5 30	20 19		
18	28 47	46	10 II 46	2 1	13 25	19 34	10 28	6 43	21 55		
19	29 48	49	25 2	0 45	13 20	19 42	10 55	7 55	23 32		
20	30 49	51	10 30	0 S 33	13 15	19 50	11 22	9 7	25 10		
21	1 50	53	23 26	1 49	13 11	19 57	11 49	10 20	26 49		
A	2 51	54	7 11	3 1	13 6	20 0	12 17	11 32	28 29		
23	3 52	54	20 57	3 53	13 2	20 12	12 44	12 44	30 50		
24	4 53	52	4 16	4 34	12 57	20 20	13 11	13 56	1 9		
25	5 54	50	17 14	5 1	12 52	20 27	13 19	15 8	3 31		
26	6 55	47	29 52	5 11	12 49	20 34	14 7	16 20	5 12		
27	7 56	44	12 11	5 8	12 4	20 41	14 36	17 32	6 54		
28	8 57	40	24 21	4 50	12 40	20 48	15 5	18 43	8 37		
A	9 58	38	6 M 1	4 20	12 36	20 55	15 33	19 54	10 21		
30	10 59	28	18 10	3 39	12 32	21 0	16 2	21 6	12 6		
31	12 0	20	0 ♄ 0	2 48	12 28	21 9	16 31	22 17	13 52		
Days	Jupiter rif. s.	Mars fets.	Venus fets.	Mercur. rifes.	Dec. ♄ North.	Dec. ♃ South.	Dec. ♀ North.	Dec. ♁ South.	Dec. ♀ South.		
1	3 M 32	2 M 33	6 A 57	6 M 8	22 19	16 56	13 56	17 47	23 34		
7	3 10	2 19	7 14	7 15	22 23	16 13	14 45	15 21	24 14		
13	2 49	2 7	7 30	7 26	22 27	16 27	15 38	12 42	24 10		
19	2 27	1 57	7 47	7 41	22 31	16 41	16 31	9 51	23 12		
25	2 7	1 45	8 4	7 45	22 33	16 52	17 24	6 52	21 23		

February hath XXVIII Days,

White.

The LUNATIONS.

New Moon the 6th Day, 48 Minutes past 5 at Night.

First Quarter the 13th Day, 42 Minutes after 3 in the Afternoon.

Full Moon the 20th Day, 26 Minutes past 5 at Night.

Last Quarter the 28th Day, 17 Minutes after 5 at Night.

M D	Sundays & other remarkable Days.	Sun rises.	Sun sets.	Dec. ☉	Dec. ☾	Moon rises.	Moon South.	Clock bef. Sun	
1		7 26	4 35	16 56	24 4	3 M 40	7 M 29	14 14	
2	Purif. B.V. Mary	7 24	4 37	16 37	24 7	4 34	8 18	14 21	
3		7 22	4 39	16 20	23 0	5 19	9 8	14 27	
4	A Shrove Sunday.	7 20	4 40	16 2	20 43	5 50	10 1	14 32	
	Agatha V. & M.			15 44	17 27	6 26	10 51	14 37	
6	Shrove Tuesday.	7 16	4 44	15 26	13 5	) sets.	11 42	14 41
7	Ash Wednesday.	7 15	4 45	15 7	8 3	0 A. 6	0 A. 31	14 43	
8		7 13	4 47	14 48	2 23	7 24	1 19	14 45	
9		7 11	4 49	14 29	3 N 10	8 44	2 9	14 46	
10		7 10	4 51	14 9	8 46	10 6	2 59	14 46	
11		7 8	4 53	13 49	13 55	11 30	3 50	14 46	
12	A 1 Sun. in Lent.	7 6	4 55	13 2	18 19	Morn.	4 44	14 45	
13	Term ends.	Old	4 55	13 9	21 39	0 51	5 42	14 43	
14	Valen. B. & M.	7 3	4 58	12 49	23 37	2 9	6 42	14 41	
15	Ember Week.	7 1	5 0	12 28	24 7	3 17	7 40	14 38	
16		6 59	5 2	12 7	23 5	4 13	8 39	14 34	
17		6 57	5 4	11 46	20 40	4 56	9 35	14 29	
18		6 55	5 6	11 25	17 5	5 29	10 29	14 23	
19	A 2 Sun. in Lent.	6 53	5 8	11 3	12 40	5 54	11 17	14 17	
20		6 51	5 10	10 42	7 42	) rises	Morn.	14 10
21		6 49	5 12	10 20	2 31	6 A 37	0 4	14 3	
22		6 47	5 14	9 58	2 S. 42	7 48	0 51	13 55	
23		6 45	5 16	9 36	7 38	8 59	1 33	13 46	
24	St. Matthias.	6 43	5 18	9 14	12 14	0 8	2 17	13 37	
25		6 4	5 20	8 52	16 15	11 17	3 1	13 27	
26	A 3 Sun. in Lent.	6 39	5 22	8 29	19 35	Morn.	3 46	13 17	
27		6 38	5 23	8 7	22 7	0 24	4 32	13 6	
28		6 36	5 25	7 44	23 33	1 37	5 21	12 54	
Days	Day increaf.	Length of Day.	Helioc. Pla. ♀	Helioc. Pla. ♀	Helioc. Pla. ♂	Helioc. Pla. ☉	Helioc. Pla. ♀	Helioc. Pla. ♀	Saturn sets.
1	1 25	9 9	15 23 35	10 M 52	25 11 48	13 11	25 15 55	22 33 9	6 M. 5
7	1 46	9 30	15 45	11 19 28	44	19 6	5 11 34	46 34	5 39
13	2 7	9 51	16 2	11 47	1 39	25 10	15 15	16 10	5 15
19	2 31	10 15	16 16	12 14	4 32	10 12	24 56	20 51	4 51
25	2 55	10 29	16 29	12 42	7 24	7 14	4 33	28 30	4 28

Black Finches time up the 24th.

February 1769.

Days	Daylg begins	Daylg ends.	Durat Twilig.	Node Invy	Lat. ♄ South.	Lat. ♃ North.	Lat. ♀ North.	Lat. ♀ South.	Lat. ♀ South.
1	5 30	6 30	2 0	1 1	0 17	1 6	1 32	0 43	2 0
7	5 21	6 39	1 59	0 41	0 16	1 7	1 34	0 22	1 39
11	5 12	6 48	1 57	0 21	0 15	1 8	1 35	0 N. 3	0 57
19	5 5	7 0	1 57	0 1	0 15	1 0	1 36	0 27	0 N 11
29	4 50	7 10	1 57	29 41	0 10	1 10	1 36	0 55	1 35
S.D. Days	♄ d. m. l.	♃ d. m. l.	♂ ♀	♄ La	♄ R	♃ M	♂ ♀	♀ ♀	♂ ♀
1	13 1 0	11 58	1 S. 50	12 24	21 10	17 0	23 29	15 31	
2	14 1 59	23 58	0 47	12 20	21 21	17 30	24 40	17 25	
3	15 2 47	6 V 16	0 N. 20	12 17	21 27	17 59	25 51	19 12	
4	16 3 34	18 50	1 27	12 18	21 32	18 29	7 1	21 0	
A	17 4 19	1 43	2 21	12 9	21 28	18 09	18 17	22 49	
6	18 5 3	14 58	3 29	12 6	21 40	19 29	29 23	24 38	
7	19 5 45	28 29	4 16	12 2	21 49	19 59	0 V 33	26 28	
8	20 6 28	12 X 17	4 49	11 59	21 50	20 30	1 43	28 17	
9	21 7 8	20 18	5 6	11 51	21 59	21 0	2 54	0 X 6	
10	22 7 46	10 V 27	5 4	11 52	22 3	21 31	4 4	1 56	
11	23 8 23	24 40	4 44	11 49	22 8	22 1	5 14	3 45	
A	24 8 58	8 O 52	4 6	11 46	22 13	22 32	6 23	5 34	
13	25 9 32	23 1	3 13	11 43	22 17	23 3	7 33	7 22	
14	25 10 4	7 II 7	2 9	11 40	22 21	23 35	8 43	9 9	
15	27 10 35	21 10	0 57	11 38	22 25	24 6	9 51	0 54	
16	28 11 4	6 S 4	0 S. 18	11 35	22 24	24 38	11 11	12 38	
17	29 11 32	18 52	1 30	11 33	22 33	25 9	12 10	14 20	
18	X 11 58	2 O 31	2 37	11 30	22 36	25 41	13 19	15 58	
A	1 12 23	16 4	3 34	11 28	22 40	26 13	14 28	17 33	
20	2 12 46	19 22	4 18	11 21	22 45	26 45	15 36	19 4	
21	3 13 7	12 M 26	4 48	11 24	22 47	27 17	16 45	20 30	
22	4 13 26	25 14	5 2	11 22	22 48	27 50	17 53	21 51	
23	5 13 43	7 43	5 0	11 20	22 51	28 22	19 1	23 7	
24	6 13 58	20 4	4 47	11 18	22 50	28 54	20 8	24 17	
25	7 14 12	2 M 0	4 19	11 16	22 51	29 27	21 16	25 19	
A	8 14 24	14 4	3 41	11 14	22 52	9 59	22 23	20 14	
27	9 14 34	25 55	2 53	11 13	23 0	0 II 32	23 30	27 1	
28	10 14 43	7 4	1 58	11 11	23 2	1 4	24 38	27 39	
Days	Jupiter rises.	Mars sets.	Venus sets	Mercu. sets.	D. c. ♄ North	Dec. ♃ South	Dec. ♀ North.	Dec. ♀ South.	Dec. ♀ South.
1	1 M 42	1 M 40	8 A 20	4 A 42	22 37	17 3	18 25	3 15	18 5
7	1 21 1 33	8 42	8 42	5 25	22 40	17 11	19 16	0 7	14 16
11	1 0 1 27	8 59	6 4	6 4	22 43	17 17	0 6	3 N. 3	9 42
19	0 39 1 22	6 17	6 44	6 44	22 44	17 21	20 53	6 8	4 40
25	0 18 1 17	9 34	7 6	7 6	22 46	17 24	21 37	9 10	0 25

March hath XXXI Days.

White.

The LUNATIONS.

New Moon the 8th Day, 28 Minutes past 6 in the Morning.

First Quarter the 14th Day, 32 Minutes past 11 at Night.

Full Moon the 22d Day, 38 Minutes after 8 in the Morning.

Last Quarter the 30th Day, 55 Minutes past Noon.

M D.	Sundays & other remarkable Days.	Sun		Dec. ☉		Dec. ☾		Moon		Moon		Clock bet. Sun
		rises.	sets	South.	South.	rises.	South.	rises.	South.			
1	David.	6 34	5 27	7 21	24 1	2M 24	6M 9	12 42				
2	Chad. B. Litch.	6 32	5 29	6 58	23 21	3 13	6 59	12 30				
3		6 30	5 31	6 35	21 33	3 57	7 51	12 17				
4		6 28	5 33	6 13	18 40	4 27	8 43	12 4				
5	A Midlent Sunday.	Prs. Hesse bo.		5 49	14 47	4 53	9 30	11 50				
6		6 24	5 37	5 26	10 4	5 16	10 21	11 35				
7	Perpetua M.	6 22	5 39	5 4	4 42	5 37	11 13	11 20				
8		6 20	5 41	4 39	1N. 2	6 1ers.	0A. 3	11 4				
9		6 18	5 43	4 16	6 47	7A. 49	0 55	0 48				
10		6 16	5 45	3 57	12 22	9 1	1 46	10 32				
11		6 14	5 47	3 29	16 59	10 40	2 42	10 16				
12	A 5 Sun. in Lent.	Greg. B Rome		3 5	20 41	Morn.	3 48	9 59				
13		6 10	5 51	2 42	23 3	0 2	4 40	9 42				
14		6 8	5 53	2 18	23 54	1 14	5 41	9 25				
15		6 6	5 55	1 54	23 12	2 15	6 38	9 8				
16		6 4	5 57	1 31	21 9	3 0	7 34	8 50				
17	Camb T. ends.	6 2	5 59	1 7	17 58	3 37	8 27	8 32				
18	Oxl. T. ends.	6 0	6 1	0 43	13 48	4 4	9 18	8 14				
19	A Palm Sunday.	5 58	6 3	0 19	9 7	4 26	10 6	7 56				
20		5 56	6 5	0N 4	4 8	4 46	10 52	7 38				
21	Benedict Abbot.	5 54	6 7	0 28	1S 1	5 3	11 35	7 20				
22		5 52	6 9	0 52	6 2	6 1ers.	Morn.	7 1				
23	Maundy Thursd.	5 50	6 11	1 15	10 42	8A. 0	0 19	6 43				
24	Good Friday.	5 48	6 13	1 39	14 53	9 9	1 3	6 24				
25	Lady-Day.	5 46	6 15	2 2	18 25	10 18	1 48	6 6				
26	A Easter Day.	5 44	6 17	2 26	21 7	11 22	2 34	5 47				
27	Easter Monday.	5 43	6 18	2 49	22 56	Morn.	3 20	5 28				
28	Easter Tuesday.	5 41	6 20	3 13	23 41	● 21	4 9	5 10				
29		5 39	6 22	3 36	23 6	1 12	5 0	4 51				
30		5 37	6 24	3 59	22 4	1 55	5 50	4 32				
31		5 35	6 26	4 27	19 38	2 51	6 40	4 13				
☽	Day	Length	Helioc.	Helioc.	Helioc.	Helioc.	Helioc.	Helioc.	Saturn			
☽	increas.	of Day	Plac. ♀	Plac. ♀	Plac. ♀	Plac. ☉	Plac. ♀	Plac. ♀	sets.			
1	3 9	10 5	16 38	13 11	9 26	11 15	11 26	22 26	7 4M 11			
7	3 33	11 17	16 52	13 23	12 7	17 15	20 51	2 14	3 49			
13	3 57	11 41	17 5	13 56	14 55	25 14	0N 35	22 49	3 27			
19	4 21	12 5	17 19	14 24	17 42	29 11	10 21	15 24	3 5			
25	4 46	12 30	17 32	14 51	20 28	5 2	20 6	4 52	2 44			

Heifers time up the 10th
 Walker bull'd the 8th at Pickering's
 Bull'd again the 29th at Saml Eyre's

March 1769.

Day	Daylyg. begins.	Daylyg. enos.	Durat. Twilig.	Node ♀ in ♀	Lat. † South.	Lat. ♀ North.	Lat. ♂ North.	Lat. ♀ North.	Lat. ♀ North.
1	4 4	7 17	1 55	29 28	0 14	1 10	1 37	1 14	2 32
7	4 30	7 30	1 56	2 8	0 13	1 11	1 37	1 42	3 30
12	4 17	7 43	1 57	28 49	0 12	1 12	1 36	2 11	3 26
18	4 4	7 56	1 58	28 30	0 11	1 13	1 36	2 40	2 25
24	3 50	8 10	2 0	28 10	0 M 10	1 13	1 36	3 8	0 53
	☉	☽	☾	♂	♀	♂	♂	♂	♂
	d.	m.	f.	♂	♀	♂	♂	♂	♂
11	14	50	19 39	0 S. 57	11 10	23 3	1 37	25 45	18 10
12	14	55	19 43	0 N. 7	11 9	23 4	2 10	26 51	8 30
13	14	58	19 47	1 1	11 8	23 5	2 43	27 58	18 40
14	14	59	20 40	2 14	11 7	23 6	3 17	29 4	28 42
15	14	58	9 41	3 12	11 6	23 6	3 50	0 10	28 R 37
16	14	55	23 7	4 1	11 5	23 7	4 23	1 15	28 21
17	14	50	6 39	4 37	11 5	23 7	4 57	2 20	27 58
18	14	43	21 12	4 58	11 4	23 8	5 30	3 26	27 28
19	14	35	5 40	4 59	11 4	23 R 8	6 4	4 31	26 50
20	14	24	20 17	4 41	11 3	23 8	6 37	5 35	26 6
21	14	11	4 55	4 5	11 3	23 7	7 11	0 38	25 17
22	13	55	19 27	3 13	11 3	23 7	7 44	7 42	24 25
23	13	38	3 47	2 10	11 D. 3	23 6	8 18	8 46	23 30
24	13	19	17 56	0 59	11 3	23 5	8 52	9 49	22 34
25	12	58	10 50	0 S. 1	11 4	23 4	9 26	10 52	21 38
26	12	36	15 32	1 26	11 4	23 2	10 0	11 50	20 43
27	12	11	28 53	2 3	11 5	23 0	0 34	12 58	19 50
28	11	44	12 21	3 28	11 5	22 59	11 8	14 0	19 0
29	11	15	25 29	4 12	11 6	22 57	11 42	15 1	18 15
30	10	43	8 24	4 4	11 7	22 55	12 17	16 2	17 35
31	10	10	21 10	4 58	11 8	22 52	12 51	17 3	17 0
2	9	35	3 43	4 59	11 9	22 50	13 20	18 3	16 29
3	8	58	16	4 47	11 10	22 47	14 0	19 3	16 4
4	8	19	28 12	4 20	11 11	22 45	14 35	20 3	15 46
5	7	38	10 13	3 48	11 13	22 42	15 9	21 2	15 34
6	6	55	22 5	2 50	11 14	22 39	15 44	2 1	15 27
7	6	10	3 55	2	11 15	22 37	16 15	22 59	15 25
8	5	22	15 4	1 2	11 18	22 32	16 53	23 57	15 D. 30
9	4	32	17 34	0 N. 1	11 20	22 28	17 28	24 54	15 40
10	3	41	9 36	1 4	11 21	22 24	18 5	25 51	15 55
11	2	47	21 52	2	11 24	22 20	18 37	26 47	15 15
	Jupit. rises.	Mars sets.	Venus sets.	Mercu. sets.	Dec. 1. North.	Dec. ♀ South.	Dec. ♂ North.	Dec. ♀ North.	Dec. ♀ North.
1	0 M. 4	1 M 1 4	9 A 4 6	7 A. 6	22 47	17 26	22 6	11 7	1 35
7	11 A. 38	1 10	10 4	6 46	22 48	17 20	22 45	13 53	2 24
13	11 16	1 4	10 21	rises.	2 49	17 24	23 19	16 31	0 37
19	10 54	1 7	10 38	5 M 24	2 50	17 22	23 49	18 55	2 S. 25
25	10 30	1 0	10 55	5 8	22 51	17 18	24 14	21 5	4 53

Blackatops bulled the 29th at Pickering's.

April hath XXX Days.

White.

The LUNATIONS.

New Moon the 6th Day, 46 Minutes past 4 in the Afternoon.
First Quarter the 13th Day, 3 Minutes after 8 in the Morning.
Full Moon the 20th Day, 46 Minutes after Midnight.
Last Quarter the 29th Day, 51 Minutes past 4 in the Morning.

M D	Sundays & other remarkable Days.	Sun rises.	Sun sets.	Dec. ☉ North.	Dec. ☽ South.	Moon rises.	Moon sets.	Clock bet Sun
1		5 33	6 28	4 46	16 13	3 M 0	7 M 31	3 5
2	A Low Sunday.	5 31	6 30	5 9	11 56	3 25	8 19	3 37
3	Richard B Chich.	5 29	6 32	5 32	6 56	3 45	9 7	3 19
4	St. Ambrose B.	5 27	6 34	5 55	1 26	4 6	9 56	3 0
5	Oxf. & C. T. beg		Old Lady Day.	6 17	4 N 30	4 26	10 46	2 42
6		5 23	6 38	6 40	9 58	☾ sets.	11 59	2 24
7		5 21	6 40	7 2	15 7	8 A. 22	0 A. 30	2 7
8		5 19	6 42	7 25	19 19	9 47	1 35	1 50
9	A 2 S. after Easter.	5 17	6 44	7 47	22 14	11 6	2 37	1 32
10		5 15	6 46	8 9	23 24	Morn.	3 40	1 15
11		5 13	6 48	8 31	23 15	0 18	4 41	0 58
12	Term begins.	5 11	6 50	8 53	21 30	1 5	5 39	0 42
13		5 10	6 51	9 15	18 31	1 45	6 35	0 26
14		5 8	6 53	9 36	14 37	2 14	7 24	0 11
15		5 6	6 55	9 58	10 9	2 39	8 12	cast. 2
16	A 3 S. after Easter.	5 4	6 57	10 19	5 13	3 0	8 58	0 19
17		5 2	6 59	10 40	0 10	3 17	9 41	0 33
18		5 0	7 1	1 1	4 S. 46	3 34	10 25	0 47
19	Alphege A. B. C.	4 58	7 3	11 22	9 26	3 51	11 9	1 1
20		4 56	7 5	1 42	13 44	☽ rises.	11 54	1 15
21		4 54	7 7	12 3	17 23	3 A. 13	Morn.	1 28
22		4 52	7 9	12 23	20 21	9 18	0 37	1 40
23	A 4 S. after Easter.		St. George.	12 43	22 21	10 18	1 24	1 52
24		4 49	7 12	13 2	23 20	11 13	2 13	2 3
25	St. Mark.	4 47	7 14	13 22	23 26	11 58	3 3	2 14
26		4 45	7 16	13 41	22 21	Moru.	3 52	2 25
27		4 43	7 18	14 1	20 11	0 35	4 41	2 35
28		4 41	7 20	14 19	17 13	1 7	5 29	2 45
29		4 40	7 21	14 38	13 10	1 33	6 16	2 54
30	A Rogation Sunday	4 38	7 23	14 56	8 43	1 54	7 5	3 2

Days	Day increas.	Length of Day	Helio. Plac ☿	H. loc Plac ♃	Helio. Plac ♄	Helio. Plac ☽	Helio. Plac ☾	Helio. Plac ♀	Helio. Plac ♁	Saturn sets.
1	5 11	12 55	17 48	15 M 24	23 26 41	12 2	1 M 29	2 M 17	2 M 10	2 0
7	5 35	13 19	18 1	15 51	26 25	17 56	11 14	11 52	2 0	3 8
13	5 57	13 41	18 10	16 19	29 50	23 48	20 58	28 26	1 17	1 17
19	5 21	14 5	18 28	16 46	18 8	29 39	22 41	15 V P 14	0 57	0 57
25	5 43	14 27	18 42	17 14	4 31	5 M 29	10 23	4 W 16		

Sept.

Sitting

April 1769.

Days	Daylig.		Durat		Node		Lat. ♄	Lat. ♃	Lat. ♀	Lat. ♁	Lat. ♋
	begins.	ends.	Twilig.	in J	South.	North.	North.	North.	North.	South.	
1	3 37	8 27	2 37	48	0 10	1 11	1 35	3 38	0 44		
7	3 17	8 43	2 8	27 29	0 9	1 14	1 34	4 1	1 45		
13	3 2	8 58	2 11	27 10	0 8	1 15	1 33	4 19	2 25		
19	2 47	9 13	2 15	26 52	0 8	1 15	1 32	4 33	2 43		
25	2 26	9 24	2 25	26 33	0 7	1 15	1 31	4 41	2 41		
Days	☉	☿	☽	♁	♂	♆	♄	♃	♂	♁	♋
	d. m. s.			Lat.	♄	♃	♂	♁	♂	♁	♋
1	12 1 50		4 29	3 N 3	11 20	22 10	19 12	17 43	16 39		
A. 13	0 52		17 30	3 57	11 28	22 11	19 47	28 38	17 8		
3	13 59 52		0 ♄ 9	4 32	11 31	22 7	22 22	29 33	17 41		
4	14 58 50		14 58	4 55	11 33	22 3	20 57	0 ♀ 27	18 20		
5	15 57 46		29 22	5 2	11 35	21 53	21 32	1 20	19 2		
6	16 56 39		14 ♀ 9	4 48	11 38	21 53	22 7	2 13	19 47		
7	17 55 31		29 8	4 15	11 41	21 48	22 42	3 5	20 34		
8	18 54 20		14 ♂ 10	3 24	11 44	21 43	23 18	3 56	21 20		
A. 19	53 8		29 6	2 19	11 46	21 38	23 53	4 46	22 21		
10	20 51 34		13 ♀ 47	1 6	11 49	21 32	24 28	5 36	23 19		
11	21 50 38		28 10	OS. 12	11 52	21 26	25 3	6 25	24 20		
12	22 49 20		12 ♄ 12	1 25	11 55	21 20	25 38	7 13	25 23		
13	23 48 0		25 53	2 32	11 59	21 14	26 13	8 0	26 29		
14	24 46 38		9 ♀ 15	3 29	12 2	21 9	26 48	8 46	27 38		
15	25 45 14		22 23	4 14	12 6	21 2	27 24	9 32	28 49		
A. 26	43 47		5 ♀ 15	4 46	12 10	20 55	27 59	10 17	OV 2		
17	27 42 19		17 54	5 2	12 13	20 49	28 34	11 1	1 17		
18	28 40 49		0 ♀ 22	5 4	12 17	20 42	29 10	11 44	2 35		
19	29 39 17		12 39	4 52	12 21	20 35	29 41	12 25	3 55		
20	♂ 37 44		24 48	4 27	12 25	20 28	0 ♄ 25	13 5	5 17		
21	1 36 9		6 ♀ 45	2 50	12 29	20 2	0 51	13 44	6 41		
22	2 34 32		18 40	3 3	12 34	20 15	1 31	14 22	8 7		
A. 23	3 32 53		0 ♀ 30	2 8	12 38	20 8	2 7	14 59	9 35		
24	4 31 12		12 18	1 8	12 42	20 1	2 42	15 36	11 4		
25	5 29 29		24 8	0 1	12 47	19 5	3 18	16 11	12 35		
26	6 27 44		6 ♀ 9	ON. 59	12 52	19 47	3 54	16 44	14 19		
27	7 25 57		18 1	2 1	12 56	19 40	4 30	17 16	15 44		
28	8 24 9		0 ♀ 17	2 59	13 1	19 32	5 5	17 46	18 21		
29	9 22 19		12 51	3 50	13 6	19 25	5 41	18 14	19 1		
A. 10	20 27		25 47	4 31	13 10	19 17	6 17	18 41	20 42		
Days	Jupiter	Mars	Venus	Mercur.	Dec. ♄	Dec. ♃	Dec. ♀	Dec. ♁	Dec. ♋		
	rises.	sets.	sets.	rises.	North.	South.	North.	North.	South.		
1	10A 2	0M 56	11A. 11	4M 55	22 49	17 11	24 37	23 13	5 57		
7	9 38	0 51	11 23	4 46	22 44	17 4	24 53	4 45	5 21		
13	9 12	0 44	11 30	4 39	22 48	16 53	24 56	5 57	3 37		
19	8 46	0 38	11 34	4 29	22 47	16 43	25 5	6 50	0 56		
25	8 20	0 31	11 33	4 22	22 45	16 32	24 58	7 25	2N. 1		

May hath XXXI Days.

White.

The LUNATIONS.

New Moon the 6th Day, 11 Minutes after 1 in the Morn.
 First Quarter the 12th Day, 43 Minutes past 5 in the Afternoon.
 Full Moon the 20th Day, 46 Minutes after 4 in the Afternoon.
 Last Quarter the 28th Day, 38 Minutes past 4 in the Afternoon.

M D.	Sundays & other remarkable Days.	Sun rises.	Sun sets.	Dec. ☉ No. th.	Dec. ☾ South.	Moon rises.	Moon Seth.	Clock at Sun.	
1	St. Phil. & James	4 35	7 25	15 14	3 34	2M 13	7M 53	3 10	
2		4 34	7 27	15 32	1N 57	2 33	8 40	3 18	
3	Inv. of the Crof.	4 33	7 28	15 50	7 33	2 53	9 30	3 25	
4	Holy Thursday.	4 31	7 30	6 7	12 54	3 11	10 23	3 31	
		4 30	7 31	16 24	17 33	3 42	11 15	3 37	
6	St. John A. P. L.	4 28	7 33	16 41	21 3	4 sets.	0A 25	3 42	
7	6 S. after Easter.	4 26	7 35	6 58	23 6	10A. 0	1 21	3 47	
8	Term ends.	4 25	7 37	17 14	23 25	11 1	2 32	3 51	
9		4 23	7 38	17 30	22 5	11 47	3 32	3 54	
10		4 22	7 39	7 46	0 21	Morn.	4 31	3 57	
11	Oxf. Term ends.	4 28	7 41	18 1	15 34	0 21	5 25	3 59	
12	Old May Day.	4 16	7 42	8 16	11 6	0 47	6 14	4 1	
13		4 15	7 44	8 31	6 15	1 8	7 1	4 1	
14	Whit Sunday.	4 13	7 44	18 46	1 13	1 27	7 46	4 2	
15	Whit Monday.	4 12	7 47	19 6	3S. 46	1 44	8 27	4 2	
16	Whit Tuesday.	4 12	7 48	19 14	8 26	2 0	9 9	4 2	
17	Ember Week.	4 11	7 50	19 27	12 42	2 18	9 53	4 1	
18		4 10	7 51	9 40	16 34	2 39	10 57	3 59	
19	Q. Charl. born.	4 8	7 53	19 57	19 40	3 3	11 24	3 57	
20		4 6	7 55	20 6	21 54	4 rises.	Morn.	3 54	
21	Trinity Sunday.	4 5	7 5	0 18	23 12	9A. 11	0 11	3 50	
22		4 3	7 57	0 30	23 26	9 59	1 1	3 46	
23		4 2	7 58	10 47	22 37	10 37	1 50	3 41	
24	Oxf. Term begins.	4 1	7 59	20 52	20 47	11 10	2 39	3 36	
25	Corpus Christi.	4 0	8 0	21 3	17 59	1 37	3 27	3 31	
26	Term begins.	3 57	8 1	21 14	14 21	11 59	4 1	3 25	
27	V n. B. de.	3 58	8 2	21 24	10 6	Morn.	4 59	3 19	
28	1 S. aft. Trinity.	3 57	8 3	21 32	5 6	0 18	5 43	3 12	
29	K. C. II. Ref.	3 56	8 4	21 43	0N. 9	0 36	6 31	3 5	
30		3 55	8 5	21 52	5 35	0 4	7 19	2 57	
31		3 54	8 6	22 0	10 44	1 16	8 11	2 42	
D M.	Day increaf.	Length of D. v.	Helioc. Plac. 1.	Helioc. Plac. 2.	Helioc. Plac. 3.	Helioc. Plac. 4.	Helioc. Plac. 5.	Helioc. Plac. 6.	Saturn sets.
1	7 5	14 49	18 55	17M 42	7S 11	11M 19	20 3	20 5	0M 37
7	7 25	15 9	19 8	18 10	9 51	17 7	29 42	21 25	0 15
13	7 43	15 27	19 22	18 38	12 31	22 54	0M 19	21 47	11A 51
19	8 1	15 45	19 35	19 5	15 10	28 40	18 54	27 13	11 29
25	8 16	16 0	19 49	19 33	17 48	4I 25	28 28	4S 54	11 8

Sitting

Tidy's (or Red finch's) time up the 8th.

May 1769.

Days	Daylig.		Durat Twilig.	Node Din ↑	Lat. ♀	Lat. ♀	Lat. ♂	Lat. ♀	Lat. ♀									
	begins.	ends.			South.	North.	North.	North.	South.									
1	2	6	9	27	26	15	0	6	1	25	1	30	4	40	2	18		
2	1	44	10	19	2	48	25	50	0	6	1	25	1	29	4	27	1	38
13	1	19	10	45	3	5	25	38	0	5	1	14	1	28	4	1	0	43
19	0	48	11	20	3	32	25	20	0	5	1	13	1	26	3	17	0	N 20
NoNig.		NoNig.		NoNig.		25	1	0	4	1	12	1	20	2	15	1	17	
Days	☉ ☽			☾ ☿	♃	♄	♅	♆	♇	♈	♉	♊	♋	♌	♍	♎	♏	♐
	d.	m.	s.		Lat.	♁	♂	♆	♅	♄	♃	♂	♆	♅	♄	♃	♂	♆
1	11	18	34	9	12	4N 58	13	15	19	10	6	53	19	6	22	25		
2	12	16	39	23	5	5	9	13	20	19	2	7	28	19	29	24	10	
3	13	14	42	7	30	5	2	13	28	18	55	8	4	19	51	25	57	
4	14	12	44	22	17	4	35	13	30	18	48	8	40	20	12	27	46	
5	15	10	44	7	3	48	13	3	8	40	9	16	20	10	29	36		
6	16	8	41	22	37	2	44	3	4	18	32	9	5	20	46	1	8	28
A. 7	17	6	37	7	35	1	29	3	4	18	25	10	28	21	1	3	22	
8	18	4	32	22	49	0	9	13	52	8	17	11	4	21	14	5	18	
9	19	2	25	7	35	1	18	13	5	18	9	11	40	21	24	7	16	
10	20	0	17	21	48	2	24	14	5	18	2	12	16	21	32	9	16	
11	20	58	8	58	39	3	27	4	9	7	54	12	52	21	37	11	17	
12	21	55	57	19	5	4	16	14	14	17	46	13	28	21	40	13	20	
13	22	53	44	2	0	4	50	14	20	17	39	14	4	21	42	15	25	
A. 23	51	30	14	6	5	9	14	26	17	31	14	40	21	40	17	31		
15	24	49	15	27	25	5	13	14	3	17	23	15	17	21	37	19	39	
16	25	46	58	9	43	5	2	14	35	7	10	15	53	21	31	21	48	
17	26	44	40	21	49	4	38	14	44	17	8	16	29	21	23	23	58	
18	27	42	21	3	48	4	2	14	50	17	1	17	51	21	12	25	9	
19	28	40	0	15	41	3	16	14	56	16	54	17	4	20	58	28	20	
20	29	37	38	27	30	2	27	15	2	6	47	8	18	10	42	0	H 31	
A. 21	35	15	9	17	1	21	15	9	6	16	40	18	54	20	25	2	42	
22	1	32	50	21	6	0	16	15	1	6	32	19	30	20	6	4	54	
23	2	30	24	2	38	0	N 49	15	21	16	25	20	7	19	43	7	6	
24	3	27	57	14	56	1	53	15	28	16	18	20	43	19	18	9	17	
25	4	25	29	27	3	2	52	15	34	6	11	21	19	18	50	11	26	
26	5	23	0	9	24	3	45	15	4	16	4	21	56	18	21	13	33	
27	6	20	30	22	0	4	28	15	4	15	57	22	32	17	51	15	39	
A. 28	7	17	58	4	56	4	59	15	5	15	51	23	9	17	19	17	44	
29	8	15	25	18	16	5	15	16	1	15	44	23	45	16	45	9	47	
30	9	12	52	2	0	5	14	16	7	15	37	24	22	16	10	21	48	
31	10	10	18	16	12	4	56	16	1	15	31	24	58	15	34	23	47	
Days	Jupiter r sets.	Mars sets.	Venus sets.	Mercur. rises.	Dec. ♀ North.	Dec. ♀ South.	Dec. ♂ North.	Dec. ♀ North.	Dec. ♀ North.									
1	7A 53	0M 23	11A 26	4M 14	22	43	16	21	14	48	27	41	6	37				
7	sets	0 14	11 10	4 6	22	40	16	8	24	33	27	38	11	7				
13	4M 22	0 4	10 46	4 2	22	38	15	57	24	11	27	14	15	48				
19	3 56	11A 51	10 12	sets.	22	34	15	45	23	44	26	27	19	1				
25	3 31	11 38	9 50	8A 48	22	30	15	33	23	11	25	15	23	28				

June hath XXX Days.

White.

The LUNATIONS.

New Moon the 4th Day, 27 Minutes past 8 in the Morning.
 First Quarter the 11th Day, 57 Minutes after 4 in the Morning.
 Full Moon the 19th Day, 7 Minutes after 8 in the Morning.
 Last Quarter the 27th Day, 13 Minutes before 1 in the Morning.

M D	Sundays & other remarkable Days	Sun rises.	Sun sets.	Dec. ☉ North.	Dec. ☽ North.	Moon rises.	Moon Sett.	Clock at Sun
1	Nicomese M.	3 53	8 7	22 8	15 42	1M 39	9M 4	2 41
2		3 52	8 8	22 16	19 41	2 8	10 2	2 31
3		3 5	8 9	22 24	22 22	2 46	11 4	2 21
4	2 S. of. Trinity	K. Geo. III. bo.	8 10	22 31	23 28	3 sets.	OA. 9	2 11
5	Boniface B. & M.	3 50	8 10	22 37	22 48	9A. 36	1 12	2 2
6		3 49	8 11	22 43	20 31	10 16	2 13	1 52
7		3 48	8 12	22 49	16 59	10 46	3 11	1 41
8		3 48	8 12	22 55	12 37	11 9	4 4	1 29
9		3 47	8 13	23 0	7 41	11 29	4 51	1 18
10	Prin. Amelia Born	3 47	8 13	23 4	2 33	11 47	5 37	1 6
11	3 S. aft. Trinity	St. Barnabas	8 14	23 9	2S. 31	Morn.	6 22	0 55
12		3 46	8 14	23 12	7 21	0 4	7 4	0 43
13		3 46	8 14	23 16	11 48	0 20	7 48	0 30
14	Term Ends	3 45	8 15	23 19	15 44	0 40	8 32	0 18
15		3 45	8 15	23 21	19 0	1 3	9 18	0 5
16		3 44	8 16	23 24	21 28	1 31	10 5	Obet. 7
17	St. Alban M.	3 44	8 16	23 25	22 58	2 3	10 53	0 20
18	4 S. aft. Trinity	3 43	8 17	23 27	23 29	2 45	11 42	0 32
19		3 43	8 17	23 28	22 55	3 rises.	Morn.	0 45
20	Tr. Edw. K. W. S.	3 43	8 17	23 28	21 18	9A. 8	0 31	0 57
21	Longest Day	3 43	8 17	23 28	18 49	9 37	1 20	1 10
22		3 43	8 17	23 28	15 12	9 59	2 7	1 23
23		3 43	8 17	23 27	11 3	10 20	2 53	1 36
24	St. John Baptist	3 43	8 17	23 26	6 18	10 38	3 37	1 49
25	5 S. aft. Trinity	3 44	8 16	23 25	1 12	10 57	4 23	2 2
26		3 44	8 16	23 22	4N. 6	11 14	5 9	2 15
27		3 44	8 16	23 20	9 17	11 34	5 57	2 27
28		3 45	8 15	23 17	14 9	Morn.	6 48	2 39
29	St. Peter & Paul	3 45	8 15	23 14	18 20	0 1	7 40	2 51
30		3 46	8 14	23 11	21 30	0 35	8 38	3 3
Days	Day increase	Length of Day	Helioc. Plac. ♄	Helioc. Plac. ♃	Helioc. Plac. ♀	Helioc. Plac. ☉	Helioc. Plac. ♀	Saturn Plac. ♄ se. s.
1	8 30	16 14	20 55	20 11	6 20	11 8	9 36	10 42
7	8 40	16 24	20 18	20 34	23 31	16 52	19 7	10 20
13	8 44	16 28	20 31	21 2	26 8	22 36	28 37	9 57
19	8 50	16 34	20 45	21 29	28 46	28 19	8Vf 6	9 35
2	decr. 2	16 32	20 58	21 57	1M 2	4Vp 2	17 35	9 13

Send out

Meet

Meet

June 1769.

Days	Daylg.	Daylg.	Durat.	Node	Lat. ♄	Lat. ♃	Lat. ♀	Lat. ♀	Lat. ♀
	begins.	ends.		in ♄	South.	Ner h.	North.	North.	North.
7	All	All	All	24 40	0 3	1 12	1 23	0 44	1 58
13	Day	Day	Day	24 22	0 3	1 10	1 21	0 S. 40	2 4
19	Light	Light.	Light.	24 4	0 2	1 9	1 19	1 59	1 45
24				24 46	0 2	1 8	1 18	3 2	1 1
28				23 28	0 1	1 6	1 16	3 48	0 S. 5
Days	☉	☽	☿	♄	♃	♂	♁	♁	♁
	d.	m.	f.	Lat	h	♃	♂	♀	♁
1	11	7	43	0 48	4 N. 14	16 21	15 24	25 54	4 58
2	12	5	7	15 44	3 17	16 22	15 18	26 10	14 21
3	13	2	29	0 II 4	2 5	16 3	15 12	26 47	13 4
4	13	59	51	16 8	0 44	16 42	15 7	27 2	13 1
5	14	57	12	1 15	0 S. 40	16 49	15 1	28 0	12 28
6	15	54	33	16 7	2 0	16 56	14 51	28 36	11 51
7	16	51	53	0 III 37	3 9	17 3	14 49	29 1	11 14
8	17	49	12	14 33	4 0	17 10	14 44	29 49	0 38
9	18	46	31	18 13	4 46	17 18	14 35	0 III 26	0 4
10	19	43	48	11 III 27	5 10	17 2	14 3	1 3	9 3
11	20	41	5	24 10	5 18	17 3	14 24	1 40	8 56
12	21	38	21	6 III 37	5 10	17 45	14 24	2 17	8 20
13	22	35	37	18 50	4 49	17 47	14 15	2 5	8 0
14	23	32	57	0 III 50	4 1	17 54	14 1	3 30	7 3
15	24	30	7	12 44	3 30	18 2	14 11	4 7	7 9
16	25	27	21	24 33	2 37	18 9	14 0	4 43	6 4
17	25	24	35	6 III 27	1 37	18 16	13 16	5 2	6 27
18	27	21	48	18 10	0 35	18 24	13 5	5 57	6 9
19	28	19	0	0 V 5	0 N 3	18 31	13 5	6 3	5 53
20	29	16	13	12 3	1 38	18 38	13 0	7 0	5 40
21	☿	13	25	24 13	2 40	18 46	13 4	7 47	5 30
22	1	10	37	6 III 32	3 35	18 53	13 4	8 24	5 22
23	2	7	48	19 4	4 20	19 1	13 41	9 0	5 16
24	3	5	0	1 X 5	4 54	19 8	13 38	9 3	5 12
25	4	2	12	14 57	5 1	19 16	13 7	10 1	5 10
26	4	59	23	28 12	5 16	19 24	13 3	10 51	5 D. 11
27	5	56	34	11 V 5	5 2	19 31	13 30	11 28	5 14
28	6	53	45	25 52	4 30	19 39	13 28	12 1	5 20
29	7	50	56	10 III 12	3 40	19 46	13 26	12 42	5 28
30	8	48	7	24 50	2 36	19 54	13 24	13 10	5 38
Days	Jupiter	Mars	Venus	Mercur	Dec. ♄	Dec. ♃	Dec. ♀	Dec. ♀	Dec. ♀
	fets.	fets.	fets	fets.	North.	South.	North.	North.	North.
7	3 M 0	1 A. 22	8 A. 30	9 A. 36	22 26	15 20	22 25	23 21	25 22
13	2 35	1 I 8	rises.	9 57	22 21	15 12	21 40	21 31	25 23
19	2 9	10 53	3 M 8	10 3	22 16	15 4	20 50	19 44	24 15
25	1 43	10 37	4 43	9 59	22 10	14 57	19 56	18 21	22 27
31	1 17	10 21	2 21	9 42	22 5	14 54	18 56	17 28	20 16

July hath XXXI Days

White.

The LUNATIONS.

New Moon the 3d Day, 33 Minutes after 3 in the Afternoon.
First Quarter the 10th Day, 28 Minutes past 6 in the Afternoon.
Full Moon the 18th Day, 15 Minutes past 10 at Night.
Last Quarter the 26th Day, 45 Minutes after 6 in the Morning.

M	Sundays and other remarkable Days.	Sun rises.	Sun sets.	D.c. ☉ North.	Dec. ☾ North.	Moon rises.	Moon South.	Clock
D								h. m.
1	A 6 Sun. a't. Trin.	3 40	8 14	23 7	23 14	1 M 17	9 M 39	3 1
3		3 47	8 13	22 57	23 19	2 15	10 44	3 21
4	Camb. Commenc.	3 48	8 12	22 52	18 41	1 A 38	10 49	3 37
5	Old M'df. D.y.	3 48	8 12	22 46	4 29	9 6	1 45	3 47
6		3 49	8 11	22 40	9 38	9 27	2 39	4 9
7	Camb. T. ends.	Thoma	a Bock.	22 34	4 27	9 47	3 20	4 10
8		3 50	8 10	22 27	0 S. 48	10 5	4 12	4 20
9	A 7 Sun. aft. Trin.	3 51	8 9	22 20	5 50	10 21	4 50	4 38
10	Oxford A&T.	3 52	8 8	22 13	10 29	10 41	5 39	4 46
11		3 5	8 7	22 5	14 39	11 3	6 24	4 54
12		3 5	8 6	21 56	18 8	11 27	7 9	5 1
13		3 5	8 5	21 48	20 49	11 59	7 5	5 8
14		3 5	8 4	21 39	22 38	Morn.	8 42	5 15
15	Oxf. Term ends.	Swith. B. Win.		21 29	23 26	0 38	9 32	5 20
16	A 8 Sun. aft. Trin.	3 58	8 2	21 19	23 10	1 26	10 23	5 28
17		3 59	8 1	21 9	21 50	2 21	11 11	5 34
18		4 0	8 0	20 59	19 29	3 16	11 59	5 39
19		4 1	7 59	20 48	16 14	4 A. 2	Morn.	5 43
20	Margaret V. & M.	4 1	7 57	20 37	12 14	8 23	0 46	5 47
21		4 1	7 56	20 26	7 29	8 42	1 34	5 50
22	D. Denmark bo.	St. Mary	Magd.	20 13	2 25	9 0	2 19	5 53
23	A 9 Sun. aft. Trin.	4 7	7 53	20 1	2 N. 51	9 19	3 4	5 54
24		4 8	7 52	19 48	8 2	9 38	3 54	5 56
25	St. James.	4 10	7 50	19 35	12 59	10 3	4 42	5 57
26	St. Anne. Mother	4 11	7 49	19 22	17 13	10 32	5 33	5 57
27	to the B. V. Mary.	4 13	7 47	19 8	20 35	11 10	6 27	5 57
28		4 14	7 46	18 55	22 44	11 59	7 25	5 57
29		4 17	7 43	18 40	23 24	Morn.	8 25	5 56
30	A 10 Sun. aft. Trin.	Dog days begin		18 26	22 29	1 2	9 28	5 54
31		4 18	7 42	18 11	20 4	2 17	10 30	5 51

Day	Day decreaf.	Length of Day.	Helioc. Pla. ♀	Helioc. Pla. ♀	Helioc. Pla. ♂	Helioc. Pla. ☉	Helioc. Pla. ♀	Helioc. Pla. ♀	Saturn sets.
1	0 6	16 28	21 12	22 M 35	4 M 0	9 V 45	27 V 4	3 I 43	8 A. 50
7	0 12	16 22	21 25	22 53	6 37	15 28	6 M 33	20 12	8 28
13	0 24	16 10	21 39	3 21	9 15	21 12	16 2	7 V 2	rises.
19	0 36	15 58	21 52	23 49	11 53	26 5	25 32	25 1	3 M 38
25	0 54	15 40	22 5	24 17	14 31	2 M 39	5 X 2	15 M 4	3 18

Mon. M

Jeſu

*Affixes
Sitting*

July 1769.

Days	Daylg. begins.	Daylg. ends.	Durat. Twilight.	Node in ♄	Lat. h South.	Lat. ♃ North.	Lat. ♀ North.	Lat. ♀ South.	Lat. ♀ South.
1	All Day Light.	All Day Light.	All Day Light.	23 10	0 1	1 1	1 14	4 17	1 27
7				22 53	0 0	1 3	1 12	4 32	2 56
13				22 35	0 0	1 1	1 10	4 36	4 15
19				22 17	0 N 1	1 0	1 8	4 32	4 53
25				21 59	0 2	0 9	1 6	4 20	4 36
Days	d. m. i.	☾ ♀	Lat. h	☾ ♀	♃ ♀	♃ ♀	♃ ♀	♃ ♀	♃ ♀
1	9 45 17	9 40	1 N 20	20 2	13 22	13 56	5 51	2 51	
A 10	42 27	24 37	0 S. 2	22 1	13 20	14 33	6 5	3 12	
3	11 39 38	9 35	1 24	20 17	13 19	15 10	6 21	3 29	
4	12 36 49	24 23	2 39	20 25	13 18	15 48	6 39	3 42	
5	13 34 0	8 14	3 43	20 33	13 17	16 25	6 19	3 51	
6	14 31 11	23 3	4 30	20 41	13 16	17 2	7 20	3 54	
7	15 28 23	6 42	5 1	20 49	13 16	17 39	7 43	3 52	
8	16 25 35	19 57	5 14	20 57	13 15	18 16	8 7	3 46	
A 17	22 47	2 48	5 11	21 4	13 15	18 53	8 33	3 35	
10	18 10 49	15 16	4 53	21 12	13 15	19 30	9 1	3 19	
11	19 17 11	27 28	4 23	21 20	13 15	20 8	9 31	2 59	
12	20 14 24	9 11	3 41	21 28	13 D. 16	20 45	10 2	2 35	
13	21 11 37	21 20	2 49	21 36	13 16	21 22	10 35	2 9	
14	22 8 51	3 7	1 52	21 44	13 17	21 59	11 9	1 38	
15	23 6 6	14 56	0 49	21 51	13 17	22 36	11 44	1 3	
A 24	3 21	26 49	0 N 16	21 59	13 18	23 14	12 20	0 24	
17	25 0 35	8 51	1 21	22 7	13 19	23 51	12 57	29 13	
18	25 57 52	21 2	2 23	22 15	13 21	24 29	13 36	29 1	
19	26 55 8	3 25	3 19	22 23	13 23	25 6	14 16	28 20	
20	27 52 24	16 0	4 6	22 31	13 25	25 43	14 57	27 39	
21	28 49 41	28 55	4 43	22 38	13 27	26 21	15 38	26 58	
22	29 46 59	11 57	5 5	22 46	13 29	26 58	16 20	26 18	
A 23	44 18	25 14	5 11	22 54	13 32	27 36	17 4	25 39	
24	1 41 38	8 44	5 1	23 1	13 34	28 13	17 48	25 3	
25	2 38 59	22 27	4 23	23 9	13 36	28 51	18 34	24 32	
26	3 36 21	6 23	3 48	23 17	13 39	29 28	19 20	24 5	
27	4 33 41	20 28	2 49	23 24	13 42	29 6	20 7	23 43	
28	5 31 6	4 47	1 40	23 32	13 45	0 41	20 55	23 26	
29	6 28 30	19 14	0 23	23 40	13 48	1 21	21 43	23 13	
A 30	7 25 55	3 47	0 S. 56	23 47	13 51	1 58	22 32	23 0	
31	8 23 21	18 22	2 10	23 5	13 54	2 31	23 25	23 D. 9	
Days	Jupiter fets.	Mars fets.	Venus fets.	Mercu. fets.	Dec. h North.	Dec. ♃ South.	Dec. ♀ North.	Dec. ♀ North.	Dec. ♀ North.
1	0 M 52	10 A. 4	2 M 2	9 A. 17	21 58	14 51	17 51	17 6	18 0
7	0 26	9 48	1 44	8 43	21 5	14 51	16 42	17 10	16 28
13	0 1	9 31	1 29	8 7	21 4	14 53	15 30	17 31	15 25
19	1 A. 35	9 15	1 17	7 24	21 38	14 56	14 1	18 3	15 4
25	1 30	8 57	1 6	6 fets.	21 3	15	12 26	18 20	14 24

The LUNATIONS.

New Moon the 1st Day, 33 Minutes past 11 at Night.
 First Quarter the 9th Day, 41 Minutes after 10 in the Morning.
 Full Moon the 17th Day, 58 Minutes past 10 in the Morning.
 Last Quarter the 24th Day, 13 Minutes after Noon.
 New Moon the 31st Day, 33 Minutes past 9 in the Morning.

M	Sundays & other D remarkable Days	Sun rises.	Sun sets.	Dec. ☉ North.	Dec. ☽ North.	Moon rises.	Moon South	Clock bet Sun	
1	Lammas Day.	4 20	7 40	17 56	16 22	3M39	11M30	5 47	
2		4 21	7 39	17 40	11 47	sets	0A.23	5 43	
3		4 23	7 37	17 25	6 41	7A49	1 13	5 38	
4		4 24	7 36	17 8	1 22	8 7	2 2	5 33	
5		4 25	7 34	16 53	16 53	8 26	2 47	5 27	
6	11 Sun. aft. Trin.	Transfiguration		16 36	8 45	8 44	3 32	5 21	
7		4 28	7 31	16 19	13 10	9 6	4 16	5 12	
8		4 30	7 29	16 2	16 56	9 30	5 2	5 6	
9		4 31	7 28	15 45	19 55	9 59	5 49	4 58	
10	St. Laurence M.	4 33	7 26	15 27	22 1	10 35	6 37	4 50	
11	Prs. Brun'w. born.	4 35	7 24	15 9	23 9	11 20	7 27	4 41	
12	Pr. Wales born.	Old Lam. Day		14 51	23 14	Morn.	8 18	4 32	
13	12 Sun. aft. Trin.	4 38	7 21	14 30	22 17	0 13	9 9	4 22	
14		4 40	7 19	14 14	20 15	1 14	9 56	4 11	
15	Assump. B. V. M.	4 42	7 17	13 56	17 17	2 21	10 44	4 0	
16	Pr. Fred. born.	4 44	7 15	13 37	13 28	3 32	11 30	3 48	
17		4 45	7 14	13 18	8 55	sets	Morn.	3 36	
18		4 47	7 12	12 58	3 56	7A. 9	0 16	3 23	
19		4 49	7 10	12 39	IN. 19	7 28	1 6	3 10	
20	13 Sun. aft. Trin.	4 51	7 8	12 19	6 39	7 48	1 52	2 56	
21	Pr. W. Hemiborn.	4 53	7 6	11 59	11 41	8 12	2 42	2 41	
22		4 54	7 5	11 39	16 8	8 0	3 32	2 25	
23		4 56	7 3	11 18	19 42	9 45	4 28	2 10	
24	St. Bartholomew	4 58	7 1	10 58	22 9	10 11	5 23	1 54	
25		5 0	6 59	10 37	23 12	10 57	6 22	1 38	
26		5 2	6 57	10 16	22 25	Morn.	7 23	1 22	
27	14 Sun. aft. Trin.	5 4	6 55	9 55	20 51	0 6	8 23	1 5	
28	St. Augustine.	5 6	6 53	9 34	17 40	1 23	9 21	0 47	
29	Decol. St. J. Eapt.	5 8	6 51	9 12	13 31	2 44	10 15	0 30	
30		5 10	6 49	8 51	8 40	4 4	11 8	0 12	
31		5 12	6 47	8 29	3 29	sets	11 56	o aft. 6	
Days	Day decreaf.	Length of Day.	Helioc Pla. ♀	Helioc Pla. ♀	Helioc Pla. ♂	Helioc Pla. ☉	Helioc Pla. ♀	Helioc Pla. ♀	Saturn rises.
1	1 14	15 20	22 21	24 M 49	17 M 35	9 21	16 X 9	12 X 34	2 M 54
7	1 31	15 3	22 34	25 17	20 14	15 6	25 41	11 V 12	2 36
13	1 52	14 43	22 48	25 45	22 53	20 52	5 V 13	15 X 8	2 18
19	2 13	14 21	23 1	26 13	25 33	26 38	14 47	22 II 36	1 59
25	2 35	13 59	23 14	26 41	28 13	2 X 26	24 22	29 8	1 41

1st Geo. Peach's Bull to the lighter red Stirky.
 Ditto Bull at Picherings the 21st

August 1769.

Days	Day. g		D ylg.		Durat.		Nooe		Lat. ♀		Lat. ♀		Lat. ♂		Lat. ♀		Lat. ♀	
	h	gns	ends.	g.	in	g.	in	North.	North	North.	South.	North.	South.	North.	South.	North.	South.	
1	1	23	10	34	2	58	21	38	0	2	0	57	1	3	4	0	3	10
7	1	47	10	13	2	46	21	19	0	5	0	55	1	1	3	35	1	32
13	2	9	9	51	2	34	21	1	0	3	0	54	0	59	3	1	0	2
19	2	29	9	31	2	25	20	4	0	2	0	52	0	56	2	45	IN.	6
25	2	47	9	13	2	18	20	25	0	0	0	51	0	54	2	21	1	41
D	☉		♂		♁		♂		♁		♂		♁		♂		♁	
Days	d.	m.	f.	♂	♁	♂	♁	♂	♁	♂	♁	♂	♁	♂	♁	♂	♁	
1	9	20	48	2	52	3S.	17	24	3	13	58	3	14	24	14	23	1	
2	10	18	15	7	10	4	9	24	11	14	2	3	52	25	1	23	29	
3	11	15	43	11	11	4	4	24	18	14	6	4	30	45	57	23	50	
4	12	13	13	14	47	5	4	24	26	14	11	5	7	26	50	24	17	
5	13	10	44	28	3	5	6	24	33	14	15	5	4	27	43	24	51	
A	14	8	16	10	54	4	52	24	41	14	20	6	2	28	37	25	32	
7	15	5	49	23	24	4	2	24	48	14	25	7	1	29	31	26	20	
8	16	3	23	5M	26	3	45	24	55	14	30	7	39	00	6	27	14	
9	17	0	59	17	35	2	57	25	3	14	35	8	17	1	21	28	14	
10	17	58	36	9	26	2	2	25	10	14	41	8	65	2	17	29	20	
11	18	56	14	11	11	1	1	25	17	14	46	9	33	3	14	0S	32	
12	19	53	53	23	0	0N.	3	25	25	14	51	10	11	4	11	1	49	
A	20	51	33	17	1	1	1	25	32	14	57	10	49	5	8	3	12	
14	21	49	1	17	1	2	8	25	39	15	3	11	27	6	6	4	40	
15	22	46	68	9	3	3	4	25	47	15	9	12	6	7	4	6	13	
16	23	44	43	10	12	3	5	5	54	15	16	12	44	8	3	7	50	
17	24	42	29	2	12	4	31	6	1	15	22	13	22	9	2	9	31	
18	25	40	37	8	21	4	55	26	9	15	28	14	0	10	1	11	16	
19	26	38	6	3	28	5	1	26	16	15	34	14	38	11	1	13	5	
A	27	35	56	4	25	4	55	26	23	15	41	15	16	12	1	14	56	
21	28	33	48	19	18	4	29	26	30	15	48	15	54	13	2	19	49	
22	29	31	41	3	16	3	47	26	37	15	55	16	33	14	3	18	43	
23	29	29	36	17	16	2	51	26	44	6	2	17	11	15	4	20	39	
24	1	27	33	1	20	1	4	26	51	16	10	17	49	16	5	22	36	
25	2	25	51	15	27	0	32	26	8	16	17	18	28	17	7	24	34	
26	3	23	31	29	30	0S.	47	27	5	16	25	19	6	18	9	26	32	
A	4	21	31	1	15	1	56	27	11	16	33	19	45	19	11	28	30	
28	5	19	36	27	3	3	1	27	18	16	41	20	23	20	14	0M	29	
29	6	17	41	11	57	3	54	27	25	16	48	21	2	21	17	2	27	
30	7	15	48	2	1	4	33	27	31	16	56	21	40	22	20	4	24	
31	8	13	56	4	0M	4	55	27	38	17	4	22	19	23	24	6	20	
Days	Jupiter	Mars	Venus	Mercur.	Dec. ♀	Dec. ♀	Dec. ♀	Dec. ♀	Dec. ♀	Dec. ♀	Dec. ♀	Dec. ♀	Dec. ♀	Dec. ♀	Dec. ♀	Dec. ♀	Dec. ♀	
Days	fers.	fers.	rises.	rises.	North.	South.	North.	North.	North.	North.	North.	North.	North.	North.	North.	North.	North.	
1	10A.44	8A.37	0M58	3M10	21	22	15	10	11	19	19	21	18	22				
7	10	28	8	0	55	2	52	21	15	15	20	9	54	19	50	19	21	
13	9	59	8	0	51	2	56	21	7	15	30	8	26	20	8	19	27	
19	9	38	7	0	5	3	24	21	0	15	43	6	56	20	14	17	25	
25	9	18	7	1	0	4	20	20	52	15	50	5	22	20	2	13	21	

September hath XXX Day.

White.

The LUNATIONS.

First Quarter the 8th Day, 18 Minutes past 5 in the Morning.
 Full Moon the 15th Day, 39 Minutes after 10 at Night.
 Last Quarter the 22d Day, 17 Minutes past 6 at Night.
 New Moon the 29th Day, 18 Minutes after 10 at Night.

M	Sundays & other remarkable Days.	Sun rises.	Sun sets.	Dec. ☉ North.	Dec. ☽ South.	Moon sets.	Moon South.	Clock at Sun.
1	Giles Abbot & C.	5 1	6 45	8 7	1 46	6A.36	0A.44	0 24
2	London burnt 17	66 O. S.	6 44	7 45	6 48	6 56	1 30	0 43
3	15 Sun. aft. Trin.	5 17	6 42	7 23	11 26	7 16	2 16	1 3
4		5 19	6 40	7 1	15 30	7 40	3 3	1 22
5		5 2	6 38	6 39	18 45	8 8	3 49	1 42
6		5 23	6 36	6 16	21 10	8 40	4 37	2 1
7	Dog-Days ends	5 25	6 34	5 54	22 40	9 23	5 27	2 21
8	Nativ. B. V. Mary.	5 27	6 32	5 31	23 6	10 12	6 16	2 41
9		5 29	6 30	5 8	22 30	11 9	7 5	3 1
10	16 Sun. aft. Trin.	5 31	6 28	4 46	20 53	Morn.	7 55	3 21
11		5 33	6 26	4 23	18 19	0 12	8 42	3 41
12		5 35	6 24	4 0	15 0	1 21	9 30	4 2
13		5 37	6 22	3 37	10 35	2 34	10 17	4 23
14	Holy-Cross Day.	5 39	6 20	3 14	5 46	3 48	11 4	4 45
15		5 41	6 18	2 51	0 31	4 15	11 54	5 6
16		5 43	6 16	2 27	0N.52	6 A. 2	Morn.	5 27
17	17 Sun. aft. Trin.	Lambert	B.&M	2 4	10 4	6 25	0 43	5 48
18		5 47	6 12	1 41	4 48	6 52	1 35	6 8
19		5 49	6 10	1 17	18 41	7 26	2 30	6 29
20	Ember Week.	5 51	6 8	0 45	25 26	8 9	3 27	6 49
21	St. Matthew.	5 53	6 6	0 31	22 49	9 3	4 28	7 10
22	K. George III. Cr.	5 55	6 4	0 7	22 44	10 8	5 27	7 31
23		5 57	6 2	0S.16	21 12	11 22	6 26	7 51
24	18 Sun. aft. Trin.	5 59	6 0	0 40	18 23	Morn.	7 24	8 12
25		6 1	5 58	1 3	14 3	0 39	8 17	8 32
26	St. Cyprian. M.	6 3	5 56	1 27	10 4	1 57	9 9	8 53
27		6 5	5 54	1 50	5 6	3 15	9 58	9 13
28		6 7	5 52	2 12	0S. 2	4 31	10 46	9 33
29	St. Michael.	Prs. Char. Aug. Mat. lo.		5 4		sets.	11 32	9 52
30	St. Jerome.	6 11	5 48	3 0	9 48	5A.18	0A.18	10 11

Days	Day decreasf.	Length of Day.	Helio. Plac ♀	Helio. Plac ♀	Helio. Plac ♂	Helio. Plac ♂	Helio. Plac ♀	Helio. Plac ♀	Saturn rises.
1	3 3	13 33	23 30	27 14	15 21	9 12	5 34	5 37	1M20
7	3 25	13 9	23 44	27 42	4 3	15 2	15 10	1 1	1 1
13	3 49	12 45	23 57	28 10	6 45	20 52	24 48	22 22	0 42
19	4 13	12 21	24 10	28 38	9 29	26 44	4 27	11 5	0 23
25	4 37	11 57	24 24	29 7	12 13	2 37	14 7	28 15	0 5

September 1769.

Days	Daylig		Durat Twilig.	Node in ↑	Lat. ♄	Lat. ♃	Lat. ♀	Lat. ♁	Lat. ♋	
	beg ns	ends.			North	North.	North.	South.	North.	
1	3	7	8 53	2 11	20 3	0 5	0 49	0 51	1 48	1 45
2	3	24	8 36	2 6	19 4	0 6	0 48	0 49	1 20	1 24
3	3	37	8 23	2 4	19 26	0 6	0 47	0 46	0 53	0 54
4	3	52	8 8	2 1	19 7	0 7	0 46	0 44	0 26	0 11
5	4	5	7 55	2 0	18 48	0 7	0 4	0 4	0 1	0S. 31
	☉ ☽		☽ ☿	☿ ♁	♁ ♃	♃ ♀	♀ ♁	♁ ♋	♋ ♄	♄ ♁
	d.	m.	l.		♄	♃	♂	♀	♁	♋
1	9	12	5	23 8	55. 1	27 44	17 12	22 58	24 28	8 16
2	10	10	16	6 3	4 50	27 50	17 21	23 36	25 32	10 11
3	11	8	29	18 49	4 25	27 57	17 29	24 1	26 37	12 5
4	12	6	44	11 15	3 48	28 3	17 38	24 54	27 42	13 58
5	13	5	1	13 27	3 1	28 9	17 47	25 32	28 47	15 50
6	14	3	19	25 26	2 6	28 16	17 56	26 11	29 52	17 41
7	15	1	40	7 1	1 7	28 22	18 5	26 50	0S. 57	19 31
8	16	0	3	19 3	0 5	28 28	18 14	27 29	2 3	21 19
9	16	58	28	CV 54	ON. 58	28 34	18 23	18 8	3 9	23 6
10	17	56	54	12 52	1 58	28 40	18 32	28 46	4 14	24 53
11	18	55	22	25 5	2 54	28 46	18 42	19 25	5 20	26 38
12	19	53	52	7 34	3 44	28 52	18 51	0 4	6 27	28 22
13	20	52	24	20 23	4 23	28 58	19 1	0 43	7 34	0S. 5
14	21	50	58	3 34	4 49	29 4	19 11	1 22	8 41	1 48
15	22	49	34	17 8	5 0	29 9	19 21	2 1	9 48	3 29
16	23	48	11	1V 1	4 54	29 1	19 31	2 41	10 55	5 10
A	24	46	51	15 7	4 30	29 21	19 41	3 20	12 2	6 49
18	25	45	33	19 22	3 49	29 26	19 51	3 59	13 15	8 27
19	26	44	17	13 42	2 53	29 32	20 1	4 38	14 18	10 4
20	27	43	3	27 59	1 46	29 37	20 12	5 18	15 26	11 40
21	28	41	51	12 14	0 33	29 42	20 22	5 57	16 34	13 15
22	29	40	41	25 2	0S. 41	29 47	20 32	6 36	17 42	14 49
23	1	39	33	10 21	1 53	29 52	20 43	7 16	18 51	16 22
A	1	38	27	24 18	2 58	29 57	20 53	7 55	20 0	17 54
25	2	37	21	8 3	3 51	0S. 2	21 4	8 34	21 9	19 26
26	3	30	21	21 41	4 31	0 7	21 1	9 14	22 18	20 56
27	4	35	21	5 11	4 54	0 11	21 26	9 53	23 27	21 26
28	5	34	23	18 29	5 2	0 16	21 37	0 32	22 37	23 55
29	6	33	27	1 3	4 53	0 21	21 48	11 12	25 46	25 23
30	7	32	34	14 2	4 30	0 25	22 0	11 51	26 56	26 50
	Jupiter	Mars	Venus	Mercur.	Dec. ♄	Dec. ♃	Dec. ♀	Dec. ♁	Dec. ♋	
	fets.	fets.	rises.	rises.	North	South	North.	North.	North.	
1	8 A 55	7 A 15	1 M 10	5 M 10	20 44	16 13	3 35	19 30	10 0	
7	8 35	6 59	1 23	fets.	20 38	16 29	2 18	18 41	5 26	
13	8 15	6 44	1 30	6 A 44	20 30	16 4	0 25	17 35	0 43	
19	7 56	6 28	1 46	6 33	20 24	17 3	1S. 11	16 9	3S. 49	
25	7 36	6 14	2 2	6 22	20 18	17 20	2 46	14 28	7 55	

October hath XXXI Days.

White.

The LUNATIONS.

First Quarter the 7th Day, 49 Minutes after Midnight.
 Full Moon the 15th Day, 30 Minutes after 9 in the Morning.
 Last Quarter the 22d Day, 55 Minutes past 1 in the Morning.
 New Moon the 29 Day, 6 Minutes after 2 in the Afternoon.

Mi D.	Sundays & other remarkable Days.	Sun rises.	Sun sets.	Dec. (☉) South.	Dec. (☽) South.	Moon sets	Moon South.	Clock af. Sun.	
1	19 Sun. aft. Trin.	Remigius Bp.	3 23	14 1	5A. 2	1A. 3	10 30		
2		6 14	5 45	3 47	17 27	6 19	1 51	0 49	
3		6 16	5 43	4 10	20 14	6 50	2 40	1 8	
4		6 18	5 41	4 33	22 1	7 29	3 28	2 26	
5		6 20	5 39	4 56	22 49	8 14	4 11	3 43	
6	Faith V. and M.	6 22	5 37	5 20	22 34	9 7	5 6	4 0	
7		6 24	5 35	5 43	21 19	10 6	5 5	4 19	
8	20 Sun. aft. Trin.	6 26	5 33	6 6	19 7	11 13	6 4	4 33	
9		6 28	5 31	6 28	16 0	Morn.	7 30	4 49	
10	Orf. & Cass. T. Bc.	Old Mich. Day	6 5	12 0	0 23	8 17	8 17	5 0	
11		6 33	5 27	7 14	7 38	1 35	9 3	5 20	
12		6 34	5 25	7 37	2 36	2 50	9 51	5 35	
13	Tr. Edw. Conf.	6 36	5 23	7 59	2N. 42	4 6	10 40	5 49	
14		6 38	5 21	8 21	3 1	5 24	11 30	6 2	
15	21 Sun. aft. Trin.	6 40	5 19	8 44	13 0	) rises	Morn.	6 15
16		6 42	5 17	9 6	17 26	5 32	0 25	6 28	
17	Etheldred.	6 44	5 15	9 28	20 31	6 13	1 24	6 40	
18	St. Luke.	6 46	5 13	9 50	22 20	7 4	2 24	6 51	
19		6 47	5 12	10 11	22 41	8 7	3 25	7 2	
20		6 49	5 10	10 33	21 28	9 20	4 28	7 12	
21		6 51	5 8	10 54	18 45	10 37	5 27	7 21	
22	22 Sun. aft. Trin.	6 53	5 6	11 16	15 19	11 56	6 23	7 30	
23		6 55	5 4	11 37	10 38	Morn.	7 14	7 38	
24		6 57	5 2	1 58	6 11	1 11	8 2	7 45	
25	K. Geo. III. Inaug.	Crispin	5 0	2 18	7 11	2 20	8 49	7 51	
26	K. Geo. III. Procl.	7 1	4 58	12 39	3S. 47	3 38	9 30	8 56	
27		7 3	4 56	12 59	8 30	4 49	10 19	9 1	
28	St. Simon & Jude.	7 5	4 54	13 19	12 49	6 0	11 5	9 5	
29	23 Sun. aft. Trin.	7 7	4 52	13 39	16 28	) sets.	1 48	10 8
30		7 9	4 50	13 59	19 24	4A. 55	0A. 38	10 11	
31		7 11	4 48	14 19	21 27	5 31	1 27	10 13	
Days	Day decreaf.	Length of Day.	Helio. Plac. ♀	Helio Plac. ♀	Helio. Plac. ♂	Hel. oc. Plac. ☉	Helio. Plac. ♀	Helio. Plac. ♀	Saturn rises.
1	4 59	11 35	24 37	29 35	14 58	8 32	23 48	14 47	11A. 42
7	5 23	11 11	24 51	0 3	17 45	14 27	3 53	17 26	11 23
13	5 47	10 47	25 4	0 31	20 33	10 24	13 1	18 57	11 3
19	6 9	10 25	25 17	0 59	23 22	26 22	22 58	8 11	10 42
25	6 31	10 0	25 31	1 27	26 13	2 21	28 43	0 15	10 20

e

o.p.e.1

p.e.1

October 1769.

Days	Daylg.		Durat Twilig	Node n 7	Lat. ♄	Lat. ♃	Lat. ♀	Lat. ♁	Lat. ♀	
	be. ins.	cons.			North.	North.	North.	North.	South.	
1	4 18	7 42	1 5	18 29	0 8	0 44	0 38	0 22	1 16	
7	4 31	7 29	1 5	18 10	0 9	0 43	0 35	0 43	1 56	
13	4 43	7 17	1 5	7 51	0 9	0 43	0 32	1 1	2 31	
19	4 5	7 5	1 5	17 32	0 10	0 42	0 29	1 16	2 55	
25	5 6	7 54	1 5	7 12	0 11	0 41	0 26	1 28	2 59	
Days	d. m. s.			☾	☽	♃	♄	♁	♀	
A 1	8	31	42	26 46	30 5	0 30	22 11	12 31	23 6	28 16
2	9	30	52	9m 4	3 7	0 34	12 2	13 11	29 16	29 41
3	10	30	4	21 2	2 13	0 38	12 3+	13 5	0m 26	1m 6
4	11	29	18	37 16	1 13	0 41	22 40	14 30	1 2	2 30
5	12	28	15	15 4	0 11	0 47	22 57	15 10	2 46	3 53
6	13	27	53	0 51	0N. 2	0 51	23 8	15 50	3 50	5 14
7	14	27	13	8 40	1 53	0 55	23 20	10 30	5 7	6 34
A 8	15	26	35	0 39	2 49	0 59	23 32	17 10	6 18	7 53
9	16	26	0	2 11	3 19	1 2	23 44	17 50	7 29	9 10
10	17	25	27	15 21	4 20	1 6	23 5	18 30	8 41	10 25
11	18	24	50	28 13	4 49	1 10	24 7	19 10	9 52	11 39
12	19	24	27	11 31	5 4	1 13	24 19	19 50	11 3	12 52
13	20	24	1	25 15	5 2	1 17	24 31	20 30	12 14	14 4
14	21	23	36	9 25	4 42	1 20	24 43	21 10	13 25	15 15
A 15	22	23	13	23 55	4 3	1 23	24 55	21 50	14 37	16 24
16	23	22	52	8 35	3 7	1 26	25 8	22 31	15 48	17 30
17	24	22	34	23 20	1 59	1 29	25 20	23 11	17 0	18 33
18	25	22	7	8 1	0 46	1 32	25 32	23 51	18 12	19 34
19	26	22	3	22 38	0S 34	1 35	25 45	24 32	19 24	20 32
20	27	21	50	6 8	1 50	1 37	25 57	25 12	20 36	21 27
21	28	21	39	21 3	2 58	1 40	20 10	25 52	21 49	22 19
A 22	29	21	30	4 54	3 53	1 44	25 23	26 31	23 1	23 8
23	30	21	23	18 31	4 35	1 44	25 35	27 1	24 13	23 54
24	1	21	18	1 54	5 0	1 47	26 48	27 51	25 26	24 36
25	2	21	15	15 3	5 9	1 49	27 1	28 3	26 38	25 12
26	3	21	14	7 59	5 2	1 51	27 14	29 14	27 50	25 41
27	4	21	15	10 42	4 41	1 53	27 27	29 5	29 3	26 4
28	5	21	18	23 12	4 6	1 55	27 39	0m 13	30 13	26 20
A 29	6	21	23	5 30	3 26	1 57	27 52	1 1	1 28	26 28
30	7	21	30	17 38	2 25	1 58	28 5	1 5	2 41	26 20
31	8	21	38	29 36	1 25	2 0	28 18	2 3	3 54	26 R 21
Days	Jupiter sets.	Mars sets.	Venus rises.	Mercur. sets.	Dec. ♄ North.	Dec. ♃ South.	Dec. ♀ South.	Dec. ♁ North.	Dec ♀ South.	
1	7A. 17	5A. 58	2M 20	6A. 11	20 13	17 39	4 22	12 30	12 3	
7	6 58	5 43	2 37	6 6	20 8	17 50	5 58	0 19	15 34	
13	6 39	rises.	2 54	5 52	20 3	18 14	7 32	7 55	18 0	
19	6 20	6M 35	3 12	5 33	19 1	18 3	9 4	5 22	20 44	
25	6 1	6 36	3 30	5 29	19 58	18 52	10 34	2 41	22 0	

November hath XXX Days.

White.

The LUNATIONS.

First Quarter the 6th Day, 28 Minutes past 7 at Night.

Full Moon the 13th Day, 10 Minutes past 8 at Night.

Last Quarter the 20th Day, 48 Minutes past 11 in the Forenoon.

New Moon the 28th Day, 30 Minutes after 8 in the Morning.

M D.	Sundays & other remarkable Days.	Sun rises.	Sun sets	D c. (e Sou'h.	Dec.) South.	Moon f ts.	Moon South.	Clock aft. Su.	
1	All Sa nts.	7 10	4 47	14 38	22 32	6A. 13	2A. 16	16 14	
2	Pr. Edward born.	All Souls.		14 57	22 35	7 4	3 4	17 14	
3		7 16	4 43	15 16	21 37	8 2	3 5	6 13	
4		7 18	4 41	15 34	19 43	9 4	4 40	6 11	
A. 24	S. aft. Trin.	Papists Conspir.		15 53	16 55	10 11	5 26	6 9	
6	Term begins.	7 21	4 38	16 11	13 23	11 20	6 12	10 7	
7	D. of Cumb. co.	7 23	4 36	16 28	9 12	Morn	6 57	16 4	
8		7 24	4 35	16 46	4 28	0 30	7 44	15 59	
9	L. May, da' at Lon.	7 26	4 33	17 3	0N. 36	1 44	8 38	15 54	
10		7 28	4 31	17 20	5 47	2 59	9 18	15 48	
11	St. Martin B. & C.	7 29	4 30	17 36	10 52	4 18	10 10	15 40	
A. 25	S. aft. Trin.	7 31	4 29	17 53	15 29	5 39	11 7	15 32	
13	Britius B.	7 32	4 27	18 9	19 14	rises.	Morn.	15 22	
14		7 34	4 25	18 24	21 44	4A. 56	0 6	15 13	
15	Machutus B.	7 36	4 23	18 40	22 38	5 50	1 9	15 2	
16		7 37	4 22	18 55	21 56	7 3	2 14	14 51	
17	Hugh Bp. Linc.	7 38	4 21	19 10	19 42	8 20	3 16	14 39	
18		7 40	4 19	19 24	16 15	9 40	4 14	14 26	
A. 26	S. aft. Trin.	7 42	4 18	19 38	12 0	10 58	5 7	14 12	
20	Edmond K. & M.	7 44	4 16	19 51	7 12	Morn.	5 59	13 58	
21		7 45	4 15	20 4	2 23	0 14	6 46	13 42	
22	O. Martin Day.	7 46	4 14	20 17	2S. 45	1 27	7 31	13 26	
23	St. Clem. B. & M.	7 48	4 12	20 30	7 28	2 38	8 15	13 9	
24		7 49	4 11	20 42	11 52	3 47	9 1	12 51	
25	D. of Glouc. co.	7 50	4 10	20 54	15 38	4 56	9 44	12 32	
A. 27	S. aft. Trin.	7 51	4 9	21 5	18 44	6 3	10 29	12 13	
27		7 52	4 8	21 16	21 1	7 7	11 17	11 53	
28	Term ends.	7 53	4 7	21 26	22 19	sets	0 A 6	11 32	
29		7 44	4 6	21 37	22 38	4A. 54	0 54	11 10	
30	St. Andrew.	Prs. D. Wales		21 46	21 55	5 49	1 44	10 48	
Days	Day decreaf.	Length of Day.	Helioe. Plac. ♀	Helioe. Plac. ♀	Helioe. Plac. ♂	Helioe. Plac. ☉	Helioe. Plac. ♀	Helioe. Plac. ♀	return rises.
1	6 59	9 35	25 54 6	27 0	29 33	9 22	14 5	17 1	9 A 54
7	7 21	9 13	26 0	2 28	21 26	15 23	13 51	3 7	9 39
13	7 39	8 55	26 13	2 57	5 21	21 26	3 36	10 9	9 7
19	7 58	8 36	26 26	3 25	8 17	27 30	13 21	17 33	8 42
25	8 14	8 20	26 40	3 54	11 15	3 34	23 5	21 6	8 15

November 1769.

Days	Daylig. b-gins.		Daylig. ends.		Durat. Twilig.		Node in ♄		Lat. ♄ North.	Lat. ♃ North.	Lat. ♀ Nor. h.	Lat. ♀ North.	Lat. ♀ South.					
	d.	m.	s.	h.	m.	s.	♄	♃	♄	♃	♀	♀	♀					
1	5	17	6	43	1	59	16	49	0	12	0	40	0	22	1	39	2	17
2	5	25	6	33	2	2	16	29	0	12	0	39	0	19	1	45	0	42
3	5	34	6	26	2	3	16	10	0	13	0	39	0	15	1	47	1	15
4	5	41	6	19	2	5	15	50	0	14	0	38	0	12	1	46	2	22
5	5	48	6	12	2	7	15	50	0	15	0	37	0	8	1	43	2	27
	☉		♁		♂		♃		♄		♀		♁		♂		♃	
	d.		m.		s.		♄		♃		♀		♁		♂		♃	
1	9	21	43	11	27	0	S. 21	2	1	28	31	3	19	5	7	26	4	
2	10	22	0	13	13	0	N. 43	2	2	28	44	4	4	6	21	25	37	
3	11	22	11	5	0	1	4	2	3	28	57	4	4	7	34	25	1	
4	12	22	28	16	49	2	44	2	4	29	11	5	22	8	47	24	16	
A	13	22	46	28	40	3	36	2	5	29	24	6	3	10	0	23	21	
6	14	23	0	10	57	4	19	2	6	29	37	7	44	11	13	22	18	
7	15	23	27	23	24	4	5	2	6	19	50	7	2	12	27	21	9	
8	16	23	50	6	14	5	10	2	7	0	3	8	6	13	40	19	53	
9	17	24	14	19	28	5	13	2	7	0	16	8	47	14	54	18	31	
10	18	24	40	4	9	4	59	2	8	0	30	9	20	16	8	17	10	
11	19	25	7	17	22	4	26	2	8	0	43	10	10	17	21	15	51	
A	20	25	36	18	54	3	36	2	8	0	56	10	51	18	35	14	35	
13	21	26	6	16	48	2	29	2	R 8	1	10	11	32	19	49	13	24	
14	22	26	38	1	52	1	12	2	8	1	23	12	13	21	2	12	24	
15	23	27	12	16	58	0	S. 11	2	8	1	3	12	55	22	16	11	36	
16	24	27	48	16	57	1	32	2	7	1	50	13	36	23	30	10	59	
17	25	28	25	16	47	2	46	2	7	2	3	14	18	24	44	10	36	
18	26	29	3	1	4	3	8	2	6	2	16	14	59	25	59	10	26	
A	27	29	43	15	4	4	34	2	6	2	30	15	4	27	13	10	25	
20	28	30	24	28	4	5	4	2	5	2	42	16	2	28	2	10	D. 33	
21	29	31	7	12	0	5	16	2	4	2	56	17	4	19	42	10	53	
22	↑	31	51	25	1	5	12	2	3	3	10	17	4	11	56	11	21	
23	1	32	37	7	13	4	52	2	2	3	2	18	2	2	10	11	57	
24	2	33	24	20	10	4	19	2	1	3	37	19	9	3	2	12	41	
25	3	34	12	2	2	3	34	1	59	3	5	19	5	4	39	13	32	
A	4	35	1	14	31	2	41	1	58	4	4	20	3	5	52	14	28	
27	5	35	52	26	27	1	41	1	56	4	18	21	1	7	8	15	29	
28	6	36	44	8	17	0	37	1	55	4	3	21	57	8	22	16	34	
29	7	37	38	20	4	0	N. 28	1	53	4	4	22	30	9	37	17	42	
30	8	38	33	1	32	1	32	1	5	4	58	23	2	10	52	18	54	
	♃		♄		♀		♁		♂		♁		♂		♃		♄	
	rises.		rises.		rises.		rises.		North.		South.		South.		South.		South.	
1	5	38	6	M 36	3	M 50	A. 10	19	57	19	13	12	18	0	3	21	31	
7	5	18	6	35	4	8	rises.	19	5	9	31	13	43	3	2	18	46	
17	4	57	6	35	4	26	6	M 45	19	56	19	40	15	5	6	14	44	
18	4	55	6	34	4	42	5	56	19	58	20	5	16	23	8	5	12	42
25	4	14	6	33	4	59	6	56	20	0	20	22	17	3	1	25	13	36

December hath XXXI Days.

White.

The LUNATIONS.

First Quarter the 6th Day, 48 Minutes past 11 in the Forenoon.
 Full Moon the 13th Day, 34 Minutes after 6 in the Morning.
 Last Quarter the 20th Day, 11 Minutes before 1 in the Morning.
 New Moon the 28th Day, 57 Minutes past 3 in the Morning.

M D.	Sundays & other remarkable Days.	Sun rises.	Sun sets	Dec. ☉ South.	Dec. ☾ South.	Moon sets.	Moon South.	Clock at Sun	
1		7 57	4 3	21 56	20 15	6A.49	2A.30	10 25	
2		7 58	4 2	22 4	17 4	7 54	3 16	10 2	
3	A Advent Sunday.	7 59	4 1	22 13	14 28	9 1	4 2	9 38	
4		8 0	4 0	22 21	10 25	10 6	4 4	9 13	
5		8 0	4 0	22 29	5 56	11 16	5 3	8 47	
6	Nicholas B.	8 1	5 59	22 36	1 56	Morn.	6 33	8 21	
7		8 2	5 58	22 42	3N.56	0 56	6 39	7 55	
8	Concept. B.V.M.	8 3	5 57	22 49	8 51	1 45	7 40	7 28	
9		8 4	5 56	22 54	13 36	3 2	8 50	7 1	
10	A 2 Sun. in Advent.	8 5	5 55	23 9	17 41	4 27	9 50	6 24	
11		8 5	5 51	23 5	20 45	5 45	10 37	6 6	
12		8 6	5 54	23 9	22 22	7 1	11 40	5 38	
13	Lucy V. and M.	8 6	5 54	23 13	22 22	rises	Morn.	5 10	
14		8 6	5 54	23 17	20 48	5 47	0 40	4 41	
15		8 7	5 53	23 20	17 43	7 4	1 46	4 12	
16	Camb. Ter. ends.	8 7	5 53	23 22	13 35	8 2	2 45	3 42	
17	A 3 Sun. in Advent.	8 7	5 53	23 24	8 46	9 47	3 38	3 12	
18	Oxf. Term ends.	8 8	5 52	23 26	3 40	11 3	4 36	2 42	
19		8 8	5 52	23 27	1S.27	Morn.	5 16	2 17	
20	Ember Week.	8 8	5 52	23 28	6 27	0 16	0 1	1 41	
21	St. Thomas.	Shortest Day.		23 28	10 52	1 26	6 46	1 11	
22		8 8	5 52	23 28	14 49	2 33	7 30	0 41	
23		8 8	5 52	23 27	18 4	3 43	8 16	0 11	
24	A 4 Sun. in Advent	8 8	5 52	23 26	20 33	4 47	9 3	obsc20	
25	Christmas Day.	8 7	5 53	23 24	22 4	5 48	9 51	0 50	
26	St. Stephen.	8 7	5 56	23 22	22 38	6 42	10 38	1 20	
27	St. John Evang.	8 7	5 53	23 20	32 11	7 28	11 26	1 50	
28	Holy Innocents.	8 6	5 54	23 17	20 44	sets.	0A.14	2 19	
29		8 6	5 54	23 13	18 25	5A.32	0 59	2 48	
30		8 5	5 55	23 9	15 16	6 38	1 47	3 17	
31	A 1 Sun. aft. Christ.	8 4	5 56	23 5	11 26	7 4	2 31	3 46	
Days	Day de crea.	Length of Day.	Helio. Plac. ♀	Helio. Plac. ♀	Helio. Plac. ♂	Helio. Plac. ☉	Helio. Plac. ♀	Helio. Plac. ♀	Saturn rises.
1	8 28	8 0	26 55	4 22	14M.1.	9 59	2=48	19M	7A.49
7	8 38	7 56	27 0	4 50	17 16	15 43	12 29	12=14	7 21
13	8 46	7 43	27 20	5 19	20 19	21 52	22 9	2M 5	6 53
19	8 50	7 44	27 35	5 47	23 24	27 58	1M47	19 54	6 25
25	incre. 2	7 46	27 4	6 15	26 30	4 20	5 11 24	6 39	5 56

December 1769.

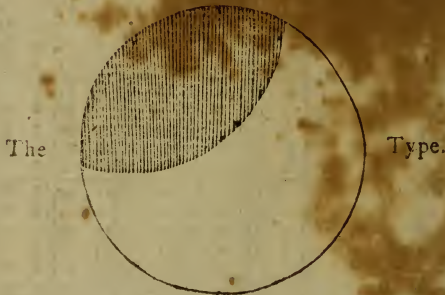
Days	Dayl. g.		Daylig.		Durat.		Node		Lat. ♄		Lat. ♃		Lat. ♁		Lat. ♀		Lat. ♋			
	begins.		ends.		Tw. lig.		D in ♄		North.		North.		Nor. h.		North.		North.			
1	5	54	6	6	2	8	15	10	0	15	0	37	0	5	1	37	1	59		
7	5	57	6	3	2	10	14	50	0	16	0	37	0	1	1	29	1	18		
13	5	59	6	1	2	12	14	29	0	17	0	37	0	S. 3	1	18	0	33		
19	6	1	5	59	2	11	14	9	0	17	0	37	0	7	1	6	0	S. 10		
25	6	1	5	59	2	11	13	49	0	18	0	36	0	10	0	53	0	50		
Days	☉			☽		☿		♄		♃		♁		♀		♋		♌		
	d.	m.	f.	☽	☿	Lat	♄	♃	♁	♀	♋	♌	♍	♎	♏	♐	♑	♒	♓	
1	9	39	29	13	38	2 N 37	1	49	5	12	4	3	22	6	20	9				
2	10	40	25	25	31	3	28	1	47	5	20	4	13	21	21	27				
4	11	41	22	7	31	4	13	1	4	5	38	25	28	14	36	22	47			
4	12	42	20	19	43	4	47	1	42	5	52	20	10	15	50	24	8			
5	13	43	18	2	0	5	10	1	40	6	5	16	32	17	4	25	30			
6	14	44	18	14	54	5	18	1	38	6	18	27	35	18	19	26	53			
7	15	45	19	28	2	5	10	1	3	6	32	28	17	19	34	28	18			
8	16	46	21	11	35	4	42	1	32	6	45	28	59	20	49	19	45			
9	17	47	24	25	33	4	2	1	29	6	58	29	42	22	4	17	12			
A	18	48	27	4	0	3	5	1	26	7	12	0	24	23	19	2	40			
11	19	49	31	24	48	1	50	1	23	7	25	1	7	24	34	4	8			
12	20	50	35	9	52	0	28	1	20	7	38	1	49	25	49	5	37			
13	21	51	40	25	9	0	S. 56	1	17	7	52	2	32	27	4	7	6			
14	22	52	46	10	22	2	16	1	14	8	5	3	14	28	19	8	35			
15	23	53	52	25	24	3	26	1	10	8	18	3	57	29	34	10	5			
16	24	54	59	10	0	4	21	1	7	8	31	4	40	0	249	11	35			
A	25	56	7	24	24	4	57	1	3	8	45	5	22	2	4	13	5			
18	26	57	15	8	14	5	15	1	0	8	58	6	5	3	19	14	36			
19	27	58	24	21	35	5	15	0	56	9	11	6	48	4	34	16	7			
20	28	59	33	4	37	4	58	0	52	9	24	7	31	5	49	17	29			
21	☿	0	42	17	1	4	28	0	48	9	37	8	14	7	4	19	11			
22	1	1	52	29	32	3	46	0	45	9	50	8	57	8	19	20	44			
23	2	3	1	11	38	2	54	0	41	10	3	9	40	9	3	22	16			
A	3	4	11	23	34	1	56	0	37	10	16	10	23	10	49	23	48			
25	4	5	22	0	52	0	52	0	33	10	29	11	6	12	4	25	21			
26	5	6	33	17	11	0	N. 13	0	29	10	42	11	49	13	19	26	54			
27	6	7	44	28	57	1	17	0	25	10	54	12	32	14	34	28	28			
28	7	8	54	10	4	2	18	0	20	11	8	13	16	15	49	0	2			
29	8	10	5	22	39	3	13	0	16	11	21	13	59	17	4	1	36			
30	9	11	16	4	0	4	0	0	12	11	3	14	42	18	19	3	11			
A	10	12	26	16	49	4	38	0	7	11	46	15	26	19	34	4	46			
Days	Jupiter		Mars		Venus		Mercur.		Dec. ♄		Dec. ♃		Dec. ♁		Dec. ♀		Dec. ♋		Dec. ♌	
	rises.		rises.		r. fe.		rises.		North.		South.		South.		South.		South.		South.	
1	7	M 30	6	M 31	5	M 17	5	M 59	20	3	20	30	18	44	13	58	15	54		
7	7	12	6	29	5	32	0	22	20	7	20	50	19	48	16	14	18	33		
13	6	53	6	27	5	49	6	48	20	12	21	4	19	45	18	17	21	0		
19	6	34	6	24	6	5	7	12	20	16	21	16	1	36	20	2	22	55		
25	6	14	6	20	6	19	7	32	20	22	21	29	2	19	21	2	24	14		

Of the ECLIPSES this Year 1769.

This Year will produce Five ECLIPSES, Three of the Sun, and Two of the Moon, which will happen in the following Order :

The first Eclipse is of the Sun, and will happen on Sunday the 8th Day of *January*, near our Two o'Clock in the Morning, consequently invisible to us, and to all these Parts of the Earth.

The second Eclipse is likewise of the Sun, and will be visible in our Isle of Great Britain, and to all Europe, if Clouds interpose not. It will happen on Sunday the 4th Day of *June* in the Morning; according to the following Type and Computation.



	London.			York.			Ednburg.			
	h.	m.	f.	h.	m.	f.	h.	m.	f.	
Begins	6	37	15	6	33	10	6	29	10	June 4th Morn.
Middle	7	34	25	7	31	16	7	28	55	
Ends	8	27	5	8	25	14	8	22	49	
Duration	1	49	50	1	52	4	1	53	20	
Digits Eclipsed	5 ^o	36'	17"	6 ^o	21'	11"	6 ^o	52'	5"	

Of the ECLIPSES, 1769.

The third Eclipse is of the Moon, and will happen on Monday the 19th Day of *June*, near our Eight o'Clock in the Morning; therefore invisible here. This will be a Total Eclipse with some Continuance, and will be visible in the Eastern Parts of Asia.

The fourth Eclipse is of the Sun, and will happen on Tuesday the 28th Day of *November*, near our Eight o'Clock in the Morning; but invisible here and in all these Parts of the Globe.

The fifth and last Eclipse is of the Moon, and will happen on Wednesday the 17th Day of *December*, in the Morning, according to the following Type and Calculation, and will be visible here.



	London.			York.			Edinburgh.			
	h.	m.	f.	h.	m.	f.	h.	m.	f.	
Begins	5	2	8	4	57	41	4	48	55	Decem. 13th Morn.
Middle	6	21	31	6	17	4	6	8	18	
Ends	7	40	54	7	36	27	7	27	41	
Duration	2	38	46	2	38	46	2	38	46	
Digits Eclipsed	8°	55'	20"	8°	55'	20"	8°	55'	20"	

June 3d this Year *Venus* will pass over the Sun's Disk; and appear like a black Spot in it. Central Ingress 7h. 51m. Afternoon; Central Egress 2h. 8m. next Morning.

November 9th *Mercury* will likewise pass over the Disk of the Sun. Central Ingress 7h. 36m. Afternoon; Central Egress 28 Minutes after Midnight.

Speculum Phaenomenorum ad Annum 1769.

Days	JANUARY.	Days	MARCH.	Days	JUNE.
2	☾ in Apogeo.	24	☽ Elong. Max. a ☉	3	☾ in Perigeo.
2	♂ ♀ 14h.	—	Vesp. 45° 55'. sets	3	♂ ♀ 10h.
6	♂ ♀ 11h.	—	4h. 39m. after him.	3	♂ ♀ 19h.
10	♂ ♀ 16h.	26	♂ ♀ 1h.	4	☽ in ☉.
10	☽ in Aphelio.	26	☽ in Apogeo.	4	♂ ♀ 4h.
1	♂ ♀ 2ch.	29	☽ in ☉	6	♂ ♀ 2h.
16	☾ in Perigeo.	Days		6	♂ ♀ 22h.
19	☉ in ☌ 4h. 12m.	Days	APRIL.	15	♂ ♀ 3h.
20	♂ ♀ 7h	4	♂ ♀ 6h.	17	☽ in Apogeo.
28	♂ ♀ 11h.	8	☽ in Aphelio.	20	☽ in ☌ 18h. 21m
30	☾ in Apogeo.	9	☾ in Perigeo.	22	☽ Elong. Max. a ☉
30	♂ ♀ 6h.	9	♂ ♀ 10h.	—	Vesp. 2° 24'. sets
Days	FEBRUARY.	10	♂ ♀ 19h.	—	1h. 3 m. after him.
6	♂ ♀ 20h.	10	☽ Elong. Max. a ☉	27	☽ in ☉.
9	♂ ♀ 12h.	—	Mat. 27° 33'. rises	30	♂ ♀ 18h
12	☽ in ☉.	12	32m. before h m.	Days	JULY.
13	☾ in Perigeo.	19	♂ ♀ 1h.	1	☾ in Perigeo.
13	♂ ♀ 10h.	22	☉ in ☌ 8h. 31m.	3	♂ ♀ 17h.
16	♂ ♀ 11h.	23	♂ ♀ 10h.	4	♂ ♀ 15h.
17	☉ in ☌ 19h. 1m.	Days	☽ in Apogeo.	5	♂ ♀ 13h.
18	☽ in ☉	Days	MAY.	5	☽ in Aphelio.
2	☽ in Perihelio.	4	♂ ♀ 10h.	7	☽ in Aphelio.
20	☽ Elong. Max. a ☉	6	☾ in Perigeo.	12	♂ ♀ 8h.
—	Vesp. 18° 51'. sets	7	♂ ♀ 21h.	13	☽ in ☉
—	1h. 46m. after him.	9	♂ ♀ 7h.	13	♂ ♀ 12h.
21	☾ in Apogeo.	9	♂ ♀ 11h.	14	☾ in Apogeo.
26	♂ ♀ 18h.	9	♂ ♀ 13h.	19	♂ ♀ 21h.
Days	MARCH.	13	☽ in ☉	22	☉ in ☌ 5h. 21m.
8	♂ ♀ 10h.	17	♂ ♀ 2h.	27	♂ ♀ 18h.
11	♂ ♀ 3h.	19	♂ ♀ 7h.	28	☾ in Perigeo.
12	☾ in Perigeo.	20	☾ in Apogeo.	29	♂ ♀ 4h.
13	♂ ♀ 3h.	20	☉ in ☌ 9h. 23m.	31	♂ ♀ 8h.
13	♂ ♀ 3h.	22	☽ in Perihelio.	31	♂ ♀ 9h.
13	♂ ♀ 3h.	27	♂ ♀ 20h.		
16	♂ ♀ 16h.				
17	☽ in Perihelio.				
19	☉ in ♀ 19h. 33m.				
—	apparent time.				

Speculum Phænomenorum ad Annum 1769

Days	AUGUST.	Days	SEPTEMBER.	Days	NOVEMBER.
3	♂♂ 6h.	24	♂♂ 10h.	15	♂ in Perigeo.
4	♂♂ 8h.	25	♀ in ☉.	18	♂♂ 2h.
8	♂♂ 18h.	6	♂♀ 1h.	21	☉ in ♄ 11h. 39m.
9	♀ Elong. Max. à ☉	19	♂♂ 19h.	25	♂♀ 5h.
	Mat. 18° 49' rises			25	♂♂ 3h.
	1h. 37m. before him	Days	OCTOBER.	26	♂♀ 0h.
11	♂ in Apogeo.	1	♀ in Aphelio.	26	♂♂ 13h.
13	♀ in ☉.	1	♂♀ 3h.	27	♂♂ 16h.
13	♀ Elong. Max. à ☉	3	♂♂ 2h.	27	♀ Elong. Max. à ☉
	Mat. 45° 44' rises	5	♂ in Apogeo.		Mat. 20° 7' rises
	3h. 4cm. before him.	13	♂♂ 7h.		2h. 2m. before him.
18	♀ in Perihelio.	18	♀ Elong. Max. à ☉		♂ in Apogeo:
22	☉ in ♀ 11h. 42m.	18	Vesp. 24° 12', sets	Days	DECEMBER.
25	♂ in Perigeo.		40m. after him.	7	♂♂ 0h.
27	♂♀ 10h.	19	♂ in Perigeo.	8	♂ in ☉
27	♂♂ 23h.	21	♂♂ 18h.	13	♂ in Perigeo.
30	♂♀ 17h.	22	☉ in ♀ 15h. 42m.	13	♂♀ 14h.
Days	SEPTEMBER.	26	♂♂ 0h.	15	♂♂ 9h.
1	♂♂ 0h.	24	♂♂ 15h.	18	♀ in ☉
2	♂♂ 0h.	28	♀ in Perihelio.	20	☉ in ♀ 23h. 45m.
4	♂♂ 9h.	30	♂♀ 17h.	23	♂♂ 4h.
5	♂♂ 9h.	5	♂♂ 21h.	23	♂♀ 11h.
7	♂ in Apogeo.	Days	NOVEMBER.	23	♂♂ 18h.
13	♂♂ 14h.	2	♂ in Apogeo.	25	♂♂ 11h.
21	♂ in Perigeo.	9	♂♂ 11h.	25	♂♂ 12h.
21	♀ in ☉.	9	♀ in ☉.	25	♂♀ 15h.
22	☉ in ♄ 8h. 1m.	14	♀ in Perihelio.	26	♂♀ 23h.
		14	♂♂ 3h.	27	♂ in Apogeo.
				28	♀ in Aphelio.

ADVERTISEMENT.

AT Bingham, near Nottingham, young Gentlemen and others may be commendably boarded with the Author of this EPHEMERIS, at reasonable Rates, and be taught by him with the utmost Care and Expedition the following Parts of the Mathematics, viz. Geometry, Algebra, Trigonometry, Navigation, Astronomy, Dialling, The Use of the Globes, and other Mathematical Instruments.

A Table of the right Ascensions in Time, Semidurnal Arches, Declinations, and Magnitudes of 30 remarkable fixed Stars, with their Names, and Bayer's Literal References, as they stand in Mr. Flamsteed's Catalogue. Ex-actly rectified to the Beginning of the Year 1769.

The Names of STARS.	Bay-Ch.	R. Ascen			Semidur Arches.			Declination.			Magn.
		h.	m.	s.	h.	m.	s.	l.	m.	s.	
The Southern Star in Andromeda's Girdle, Mirach.	β	0	56	33	0	6	20	34	22	35 N	2
The bright one in her left Foot, Alamack.	γ	1	49	47	sets not			41	12	17 N	2 3
The unformed Star above the Ram's Head.	α	1	54	4	8	9	13	22	21	24 N	2
In the Head of Medusa, Algol.	β	2	53	4	sets not			40	2	37 N	2 3
In Perseus's right Side, Algenib.	α	3	7	48	sets not			49	1	24 N	2 3
The Middle and brightest of the 7 Stars.	η	3	33	43	8	16	26	23	22	15 N	3
The Bull's South Eye, Aldebaran.	α	4	22	36	7	28	44	16	1	38 N	1
In the left Shoulder of Auriga, Capella.	α	4	59	31	sets not			45	45	37 N	1
The left Foot of Orion, Rigel.	β	5	3	22	5	20	27	8	29	5 S	1
The middle Star in his Girdle.	ε	5	24	24	5	58	47	1	22	7 S	2
In his right Shoulder, Betelgeuse.	α	5	42	35	6	41	2	7	20	52 N	1
In the great Dog's Mouth, Sirius.	α	6	34	59	4	27	18	16	22	39 S	1
In the Head of the 1st Twin, Castor and Apollo.	α	7	19	47	9	38	52	32	23	3 N	1
In the lesser Dog's Thigh, Procyon.	α	7	27	10	6	33	12	5	49	47 N	1 2
In the Head of the 2d Twin, Pollox or Hercules.	β	7	31	8	8	58	42	28	34	38 N	2
Hydra's Heart, Alohahd.	α	9	16	7	5	24	47	7	39	35 S	2
The Lion's Heart, Regulus.	α	9	56	0	7	11	54	13	5	25 N	1
In the Extremity of his Tail, Deneb.	β	11	37	16	7	27	48	15	51	52 N	1 2
In the Virgin's right Wing, Vindemiatrix.	ε	12	50	39	7	7	1	12	12	5 N	3
In her Left hand, Asiffa.	α	13	13	0	5	12	50	9	56	46 S	1
Between the Thighs of Bootes, Arcturus.	α	14	5	8	7	56	13	20	26	35 N	1
In the Southern Scale of Libra.	α	14	38	7	4	44	50	15	4	2 S	2
In the Northern Scale of Libra.	β	15	4	35	5	20	16	8	31	10 S	2
The Bright Star in the Northern Crown.	α	15	24	53	8	49	3	27	30	3 N	2 3
The Scorpion's Heart, Antares.	α	6	15	13	3	34	28	25	53	59 S	1
In the Head of Serpentarius.	α	17	24	6	7	9	56	12	44	10 N	2
Bright Star in the Harp, Lyra.	α	18	29	3	sets not			38	34	14 N	1
Bright Star in the Eagle, Atair.	α	19	39	20	6	45	47	8	15	23 N	1 2
In the Mouth of the Southern Fish, Fomalhaut.	α	22	44	39	2	51	37	30	50	27 S	2 1
In the Wing of Pegasus, Markab.	α	22	53	9	7	16	43	13	56	51 N	2

A Table of the Eclipses of *Jupiter's* first Satelles, reduced to correct or apparent Time, 1769. White.

JANUARY				MARCH				APRIL				JUNE			
Immersion				Immersion				Immersion				Immersion			
d.	h.	m.	s.	d.	h.	m.	s.	d.	h.	m.	s.	d.	h.	m.	s.
1	19	17	14	1	4	43	4	28	14	36	39	17	6	3	12
3	13	44	45	2	23	11	48	30	9	5	20	19	0	31	33
5	8	12	17	4	17	40	34	MAY				20	18	59	54
7	2	39	50	6	12	9	23	Immersion				22	13	28	15
8	21	7	24	8	6	30	13	2	3	34	10	24	7	56	37
10	15	34	59	10	1	7	5	3	22	3	1	26	2	25	0
12	10	2	34	11	19	35	57	5	16	31	43	27	20	53	24
14	7	30	12	13	14	4	50	7	11	0	23	29	15	21	49
15	22	57	53	15	3	33	43	Emersions				JULY			
17	17	25	37	17	3	2	37	9	7	36	46	1	9	50	14
19	11	53	23	18	21	31	31	11	2	5	27	3	4	18	40
21	6	21	11	20	16	0	26	12	20	34	8	4	22	47	7
23	0	49	1	22	10	29	21	14	15	2	47	6	17	15	30
24	19	16	53	24	4	58	16	16	9	31	25	8	11	44	7
26	13	44	47	25	23	27	12	18	4	0	1	10	6	12	39
28	8	12	44	27	17	56	9	19	22	28	36	12	0	41	12
30	2	40	45	29	12	25	7	21	16	57	8	13	19	9	46
31	21	8	49	31	6	54	6	23	11	25	38	15	13	38	22
FEBRUARY				APRIL				JUNE				AUGUST			
Immersion				Immersion				Immersion				Emersions			
d.	h.	m.	s.	d.	h.	m.	s.	d.	h.	m.	s.	d.	h.	m.	s.
2	15	30	56	2	1	23	4	1	7	47	53	2	6	25	58
4	10	5	4	3	19	52	1	3	2	16	19	4	0	54	51
6	4	33	14	5	14	20	57	4	20	44	43	5	10	23	46
7	23	1	26	7	8	49	53	6	15	13	5	7	13	32	43
9	17	29	40	9	3	18	49	8	9	41	26				
11	11	57	57	10	21	47	45	10	4	9	47				
13	6	26	17	12	16	16	40	11	22	38	8				
15	0	54	40	14	10	45	37	13	17	6	29				
16	19	23	6	16	5	14	32	15	11	34	51				
18	13	51	33	17	23	43	26								
20	8	20	2	19	18	11	19								
22	2	48	34	21	12	41	11								
23	21	17	8	23	7	10	3								
25	15	45	44	25	1	38	55								
27	10	14	21	26	20	7	47								

A Table of the Eclipses of *Jupiter's* first Satelles, reduced to correct or apparent Time, 1769. White

AUGUST				AUGUST				SEPTEMBER				OCTOBER			
Emerfions				Emerfions				Emerfions				Emerfions			
d.	h.	m.	f.	d.	h.	m.	f.	d.	h.	m.	f.	d.	h.	m.	f.
9	8	21	42	28	19	42	31	11	23	37	9	10	10	59	28
11	2	50	44	30	14	11	48	13	18	6	29	3	5	28	41
12	21	19	48	SEPTEMBER				15	12	35	48	4	23	57	53
14	15	48	55	Emerfions				17	7	5	7	6	18	27	2
16	10	18	4	1	8	41	7	19	1	34	27	8	12	56	9
18	4	47	15	3	3	10	27	20	20	3	46	10	7	25	16
19	23	16	26	4	21	39	47	22	14	33	5	12	1	54	22
21	17	45	38	6	16	9	8	24	9	32	24	13	20	23	37
23	12	14	50	8	10	38	29	26	3	31	42	15	14	52	30
25	6	44	3	10	5	7	49	27	22	0	59	near ☉			
27	1	13	16					29	16	30	14				

The Times of the Eclipses contained in this Table, are adapted to the Meridian of the Royal Observatory near *London*; and afford an excellent Method to discover the Longitude or Difference of Meridians, between that and any other Place whatsoever; which I shall illustrate by an *Example*.

Suppose on the 10th Day of October this Year, the Time of the Im-
 mersion of *Jupiter's* first Satelles, be observed (by a Telescope) in an unknown
 Meridian, to happen at 29min. 20sec. after 10 at Night: I find by the
 Table, that the Time of this Emerfion will be (at the British Obser-
 vatory) at 25 min. 16sec. after 7 the same Night: The Difference of
 the Times is 3hours 4min. 4sec. which being converted into Deg. and
 Min. of the Equator, will make 46deg. 1min. the Longitude of
 the Place of Observation to the East; because the Time is more than
 that at the British Observatory.

A Table of the Times of High-Water at *London-Bridge*, in the Morning and Afternoon of every Day in the Year 1769. White.

Mo. Days	JANUARY.				Mo. Days	FEBRUARY.				Mo. Days	MARCH.				Mo. Days	APRIL.				
	Morn.		Altern.			Morn.		Aft. rn.			Morn.		Altern.			Morn.		Altern.		
	h.	m.	h.	m.	h.	m.	h.	m.	h.	m.	h.	m.	h.	m.	h.	m.	h.	m.		
A	8	1	8	28	1	9	7	9	39	1	7	25	7	50	1	9	9	9	42	
2	8	55	9	27	2	10	12	10	44	2	8	28	9	2	A	10	14	0	45	
3	9	58	10	29	3	11	16	11	48	3	9	36	10	10	3	11	15	1	45	
4	11	0	11	31	3	A	0	48	1	15	A	10	44	11	17	0	42	1	15	
5	0	0	0	3	A	0	48	1	15	A	11	50	0	42	4	5	0	42	1	9
6	0	31	0	59	6	1	41	2	7	6	0	18	0	46	6	1	36	2	4	
7	1	26	1	54	7	2	29	2	51	7	1	11	1	37	7	2	29	2	54	
A	2	17	2	40	8	3	?	3	23	8	2	3	2	28	8	3	14	3	33	
9	2	57	3	15	9	3	38	3	54	9	2	48	3	7	A	3	53	4	12	
10	3	31	3	47	10	4	11	4	29	10	3	24	3	41	10	4	16	5	1	
11	4	?	4	16	11	4	48	5	8	11	3	58	4	16	11	5	26	5	52	
12	4	34	4	52	A	5	31	5	55	A	4	39	5	1	12	6	22	6	52	
13	5	12	5	37	13	6	25	6	55	13	5	26	5	51	13	7	25	7	57	
14	5	54	6	17	14	7	30	8	5	14	6	22	6	54	14	8	28	9	0	
A	6	45	7	12	15	8	43	9	21	15	7	27	8	1	15	9	32	10	4	
16	7	45	8	28	16	10	0	10	39	16	8	57	9	14	A	10	34	11	3	
17	8	57	9	36	17	11	15	11	51	17	9	49	10	24	17	11	31	11	58	
18	10	15	10	54	18	0	0	18	21	18	10	57	11	30	8	0	0	0	23	
19	11	11	A	0	A	0	52	1	16	A	11	58	0	51	19	0	47	1	10	
20	0	11	0	42	20	1	41	2	5	20	0	26	0	51	20	1	33	1	56	
21	1	14	1	42	21	2	29	2	47	21	1	16	1	38	21	2	19	2	37	
A	2	11	2	34	22	3	5	3	19	22	2	0	2	21	22	2	53	3	10	
23	2	57	3	13	23	3	32	3	46	23	2	41	2	57	A	3	26	3	42	
24	3	29	3	43	24	3	59	4	13	24	3	12	3	27	24	3	57	4	14	
25	3	57	4	12	25	4	31	4	49	25	3	42	3	55	25	4	32	4	51	
26	4	28	4	45	A	5	6	5	25	A	4	9	4	27	26	5	10	5	31	
27	5	2	5	18	27	5	44	6	8	27	4	45	5	4	27	5	52	6	17	
28	5	35	5	57	28	6	33	6	59	28	5	23	5	47	28	6	42	7	7	
A	6	18	6	43						29	6	11	6	37	29	7	33	8	4	
30	7	8	7	35						30	7	4	7	33	A	8	35	9	7	
31	8	3	8	35						31	8	5	8	36						

This Table may serve the following Places, by adding,

	h.	m.
For <i>Tinmouth-Haven, Hartlepool, and Amsterdam</i>	0	30
Brest	1	0
Scilly	1	45
Mount's Bay	1	55
Bridlington Pier and Humber	2	0

A Table of the Times of High-Water at *London-Bridge*, in the Morning and Afternoon of every Day in the Year 1769. White.

Mo. Days	MAY.		Mo. Days	JUNE.		Mo. Days	JULY.		Mo. Days	AUGUST.	
	Morn. h. m.	Aftern. h. m.		Morn. h. m.	Aftern. h. m.		Morn. h. m.	Aftern. h. m.		Morn. h. m.	Aftern. h. m.
1	9 39	10 10	1	11 11	11 46	1	11 56		1	11 24	12 54
2	0 40	11 12	2		0 2	A	0 31	1 7	2	2 19	2 44
3	11 45		3	0 51	1 28	3	1 39	2 11	3	3 1	3 19
4	0 15	0 45	A	2 0	2 33	4	2 37	3 3	4	3 35	3 50
5	1 14	1 42		2 51	3 19	5	3 22	3 41	5	4 5	4 20
6	2 14	2 46	6	3 38	3 57	6	3 57	4 13	A	4 38	4 55
A	3 7	3 28	7	4 18	4 39	7	4 31	4 50	7	5 12	5 29
8	3 48	4 8	8	4 59	5 19	8	5 8	5 26	8	5 51	6 13
9	4 31	4 55	9	5 46	6 2	A	5 46	6 6	9	6 33	7 3
10	5 19	5 43	10	6 26	6 50	10	6 29	6 51	10	7 31	7 59
11	6 10	6 37	A	7 15	7 40	11	7 17	7 43	11	8 31	9 4
12	7 4	7 31	12	8 7	8 34	12	8 11	8 40	12	9 38	10 12
13	8 1	8 30	13	9 3	9 32	13	9 11	9 42	A	10 45	11 18
A	9 0	9 29	14	10 1	10 30	14	10 12	10 41	14	11 46	
15	9 57	10 24	15	11 0	11 30	15	11 15	11 47	15	0 15	0 41
16	10 51	11 18	16	11 57		A		0 16	16	1 7	1 31
17	11 45		17	0 21	0 51	17	0 45	1 10	17	1 54	2 17
18	0 12	0 36	A	1 11	1 42	18	1 35	1 59	18	2 39	2 57
19	1 0	1 24	19	2 7	2 29	19	2 24	2 42	19	3 15	3 30
20	1 48	2 12	20	2 51	3 8	20	3 1	3 16	A	3 44	4 0
A	2 35	2 53	21	3 24	3 39	21	3 32	3 46	21	4 16	4 36
22	3 11	3 27	22	3 53	4 9	22	4 0	4 17	22	4 55	5 18
23	3 43	3 58	23	4 24	4 42	A	4 33	4 52	23	5 40	6 7
24	4 13	4 32	24	4 59	5 17	24	5 11	5 32	24	6 35	7 8
25	4 51	5 9	A	5 31	5 58	25	5 53	6 19	25	7 40	8 19
26	5 26	5 48	26	6 21	6 47	26	6 46	7 16	26	8 58	9 39
27	6 10	6 34	27	7 12	7 42	27	7 46	8 23	A	10 19	10 56
A	6 59	7 25	28	8 13	8 47	28	8 41	9 21	28	11 33	
29	7 51	8 22	29	9 21	9 59	29	10 21	11 1	29	0 5	0 36
30	9 53	9 28	30	10 38	11 17	A	11 42		30	1 4	1 32
31	10 3	10 37				31	0 18	0 53	31	1 57	2 21

	Adding.		h.	m.
For Fowey, Loo, and Plymouth	—	—	3	10
Dartmouth, Harborough, and Hull	—	—	3	30
Torbay and Tinmouth	—	—	3	40
Exmouth, Topsham, and Lime	—	—	3	50
Weymouth	—	—	4	25
Bridgwater and Texel	—	—	4	40
Portland and Hartlew	—	—	5	50

A Table of the Times of High-Water at London-Bridge, in the Morning and Afternoon of every Day in the Year 1769. White.

Mo. Days	SEPTEMBER.			Mo. Days	OCTOBER.			Mo. Days	NOVEMBER.			Mo. Days	DECEMBER.		
	Morn. h. m.	Altern. h. m.			Morn. h. m.	Altern. h. m.			Morn. h. m.	Altern. h. m.			Morn. h. m.	Altern. h. m.	
1	2 40	3 59	A	2 56	3 12		3 44	3 59	1	3 53	4 7				
2	3 14	3 30	2	3 28	3 44	1	4 16	4 33	2	4 25	4 43				
A	3 44	3 59	3	3 59	4 14	3	4 51	5 10	A	5 0	5 18				
4	4 15	4 32	4	4 33	4 51	4	5 30	5 51	4	5 37	5 56				
5	4 50	5 7	5	5 10	5 30	A	6 14	6 38	5	6 20	6 43				
6	5 28	5 48	6	5 54	6 17	6	7 3	7 28	6	7 7	7 28				
7	6 12	6 39	7	6 43	7 9	7	7 56	8 25	7	7 58	8 28				
8	7 6	7 33	A	7 38	8 7	8	8 56	9 27	8	9 0	9 32				
9	8 4	8 35	9	8 37	9 8	9	9 57	10 28	9	10 5	10 39				
A	9 9	9 42	10	9 39	10 11	10	10 59	11 30	A	11 15	11 52				
11	10 12	10 43	11	10 40	11 10	11	0	1 1	11	0	0 26				
12	11 14	11 45	12	11 40	12 10	A	0 31	1 1	12	1 0	1 32				
13	0 12	1 13	13	0 10	0 36	13	1 51	2 1	13	2 5	2 33				
14	0 38	1 3	14	1 3	1 28	14	2 31	2 54	14	3 0	3 21				
15	1 28	1 53	A	1 54	2 20	15	3 16	3 37	15	3 41	3 59				
16	2 19	2 39	16	2 46	3 6	16	3 57	4 20	16	4 18	4 39				
A	2 59	3 16	17	3 26	3 44	17	4 43	5 5	A	4 59	5 21				
18	3 33	3 50	18	4 3	4 26	18	5 27	5 52	18	5 47	6 5				
19	4 7	4 29	19	4 49	5 14	A	6 18	6 46	19	6 28	6 52				
20	4 51	5 16	20	5 40	6 10	20	7 14	7 42	20	7 16	7 43				
21	5 40	6 9	21	6 39	7 11	21	8 10	8 39	21	8 10	8 39				
22	6 39	7 12	A	7 42	8 14	22	9 9	9 39	22	9 8	9 38				
23	7 45	8 22	23	8 47	9 19	23	10 8	10 38	23	10 9	10 40				
A	9 0	9 36	24	9 52	10 22	24	11 7	11 35	A	11 10	11 40				
25	10 11	10 44	25	10 52	11 22	25	0	0 2	25	0	0 10				
26	11 18	11 48	26	11 51		A	0 27	0 52	26	0 36	1 1				
27	0 18	0 18	27	0 16	0 41	27	1 16	1 41	27	1 23	1 50				
28	0 43	1 9	28	1 5	1 28	28	2 6	2 31	28	2 14	2 37				
29	1 31	1 56	A	1 50	2 13	29	2 49	3 6	29	2 53	3 9				
10	2 18	2 40	30	2 34	2 55	30	3 23	3 39	30	3 2	3 41				
			31	3 12	3 28				A	3 55	4 8				

Subtract.

h. m.

For Leigh, Maes, and Gouries Gut	0	5
Gravesend, Rochester, and Rammekins	1	20
Buoy of the Nore and Flushing	1	30
Portsmouth, Ostend, Shoe-Beacon, and Red-Sand	2	0
Harwich, Dover, Spithead, and Calais	3	0
Gunfleet, Hastings, Shoreham, Orfordness, and Diep	4	0
Yarmouth Pier and Needle	4	40
St. Helen's and Havre-de-Grace	5	30

A Table of the Sun's semi-diurnal Arches, or Times of his visible half Tarriance above the Horizon. White.

The SUN'S Declination North.

Degr.	Lat. 49		Lat. 50		Lat. 51		Lat. 52		Lat. 53		Lat. 54	
	h.	m.	h.	m.	h.	m.	h.	m.	h.	m.	h.	m.
0	6	4	6	4	6	4	6	4	6	4	6	4
1	6	8	6	8	6	8	6	9	6	9	6	9
2	6	12	6	13	6	13	6	14	6	14	6	15
3	6	17	6	18	6	18	6	19	6	19	6	20
4	6	22	6	22	6	22	6	24	6	25	6	25
5	6	26	6	27	6	27	6	29	6	30	6	31
6	6	31	6	32	6	33	6	34	6	36	6	37
7	6	36	6	37	6	38	6	40	6	41	6	43
8	6	41	6	42	6	43	6	45	6	47	6	48
9	6	45	6	47	6	48	6	50	6	52	6	54
10	6	50	6	52	6	54	6	56	6	58	7	0
11	6	55	6	57	6	59	7	1	7	3	7	6
12	7	0	7	2	7	4	7	7	7	9	7	12
13	7	5	7	7	7	10	7	12	7	15	7	18
14	7	10	7	13	7	15	7	18	7	21	7	24
15	7	15	7	18	7	21	7	24	7	27	7	31
16	7	21	7	24	7	27	7	30	7	33	7	37
17	7	26	7	29	7	33	7	36	7	40	7	44
18	7	31	7	35	7	38	7	42	7	46	7	51
19	7	37	7	41	7	45	7	49	7	53	7	58
20	7	43	7	47	7	51	7	55	8	0	8	5
21	7	49	7	53	7	57	8	2	8	7	8	12
22	7	55	7	59	8	4	8	9	8	14	8	20
23	8	1	8	6	8	11	8	16	8	22	8	28
24	8	7	8	12	8	18	8	24	8	30	8	36

By these Tables the Times of the Sun's Rising and Setting may be found, in any Part of the Kingdom of *Great-Britain* or *Ireland*, after the following Manner: Where the Latitude of the Place is known, take the Sun's Declination out of the Table, on the Noon of the Day you desire to know the Time of his Rising and Setting; and with it, according as it is either North or South, enter these Tables in the Left-

A Table of the Sun's semi-diurnal Arches, or Times of his visible half Tarriance above the Horizon, White.

The Sun's Declination South.

Degr.	Lat. 49		Lat. 50		Lat. 51		Lat. 52		Lat. 53		Lat. 54	
	h.	m.	h.	m.	h.	m.	h.	m.	h.	m.	h.	m.
0	6	4	6	4	6	4	6	4	6	4	0	4
1	5	59	5	59	5	58	5	58	5	58	5	58
2	5	54	5	54	5	53	5	53	5	53	5	53
3	5	49	5	49	5	49	5	48	5	48	5	47
4	5	45	5	44	5	44	5	43	5	42	5	42
5	5	40	5	39	5	39	5	38	5	37	5	36
6	5	35	5	35	5	34	5	33	5	31	5	30
7	5	31	5	30	5	29	5	27	5	26	5	25
8	5	26	5	25	5	23	5	22	5	21	5	19
9	5	21	5	20	5	18	5	17	5	16	5	13
10	5	17	5	15	5	13	5	11	5	10	5	8
11	5	12	5	10	5	8	5	6	5	4	5	2
12	5	7	5	5	5	3	5	0	4	58	4	56
13	5	2	5	0	4	57	4	55	4	52	4	50
14	4	57	4	54	4	52	4	49	4	47	4	44
15	4	52	4	49	4	46	4	44	4	41	4	37
16	4	46	4	45	4	41	4	38	4	34	4	31
17	4	41	4	38	4	35	4	32	4	28	4	23
18	4	36	4	33	4	29	4	26	4	22	4	18
19	4	30	4	27	4	23	4	19	4	15	4	11
20	4	25	4	21	4	17	4	13	4	9	4	4
21	4	19	4	15	4	11	4	6	4	2	3	57
22	4	13	4	9	4	4	4	0	3	55	3	50
23	4	7	4	3	3	58	3	53	3	47	3	42
24	4	1	3	56	3	51	3	46	3	40	3	34

Left hand Column, under the Word Degrees; then look the Latitude of the Place in the Top of the Table; and in that Column, against the Sun's Declination, will be found the Time of his visible half Tarriance above the Horizon, or Time of his Setting, correct by Refraction; then subtract the Time of his Setting from 12 Hours, the Remainder will be the Time of his Rising; double the Time of his Setting, the

A Table of the Sun's semi-diurnal Arches, or Times of his visible half Tarriance above the Horizon. White.

The Sun's Declination North.

Degr.	Lat. 55		Lat. 56		Lat. 57		Lat. 58		Lat. 59		Lat. 60	
	h.	m.	h.	m.	h.	m.	h.	m.	h.	m.	h.	m.
0	6	4	6	4	6	4	6	4	6	4	6	4
1	6	9	6	10	6	10	6	10	6	11	6	11
2	6	15	6	16	6	16	6	17	6	17	6	18
3	6	21	6	22	6	22	6	23	6	24	6	25
4	6	27	6	28	6	29	6	30	6	31	6	32
5	6	32	6	34	6	35	6	36	6	38	6	39
6	6	38	6	40	6	41	6	43	6	44	6	46
7	6	44	6	46	6	48	6	49	6	51	6	53
8	6	50	6	52	6	54	6	56	6	58	7	1
9	6	56	6	58	7	1	7	3	7	5	7	8
10	7	2	7	5	7	7	7	10	7	13	7	16
11	7	8	7	10	7	14	7	17	7	20	7	23
12	7	15	7	18	7	21	7	34	7	27	7	31
13	7	21	7	24	7	28	7	31	7	35	7	39
14	7	28	7	31	7	35	7	39	7	43	7	47
15	7	34	7	39	7	42	7	46	7	51	7	56
16	7	41	7	45	7	49	7	54	7	59	8	4
17	7	48	7	52	7	57	8	1	8	7	8	13
18	7	55	8	0	8	5	8	10	8	16	8	22
19	8	2	8	7	8	13	8	19	8	25	8	32
20	8	10	8	15	8	21	8	28	8	35	8	44
21	8	18	8	24	8	30	8	37	8	45	8	59
22	8	26	8	32	8	39	8	47	8	55	9	2
23	8	34	8	41	8	49	8	57	9	6	9	13
24	8	43	8	51	8	59	9	8	9	18	9	29

the Sum will be the Length of the Day; and double the Time of his Rising, the Sum will be the Length of the Night. But if the Latitude of the Place, and Declination of the Sun, consist of Degrees and Minutes, then a small Allowance must be made for the Minutes in both Cases, which may be done by a Person of an ordinary Capacity by a mental Proportion only. Thus, to find the Time of the Sun's Rising and Setting at

A Table of the Sun's semi-diurnal Arches, or Times of the visible half Tarriance above the Horizon. White.

The Sun's Declination South.

Degr.	Lat. 55		Lat. 56		Lat. 57		Lat. 58		Lat. 59		Lat. 60	
	h.	m.	h.	m.	h.	m.	h.	m.	h.	m.	h.	m.
0	6	4	6	4	6	4	6	4	6	4	6	4
1	5	58	5	58	5	58	5	58	5	57	5	57
2	5	52	5	52	5	52	5	51	5	51	5	50
3	5	47	5	46	5	45	5	45	5	44	5	43
4	5	41	5	40	5	39	5	38	5	37	5	36
5	5	35	5	34	5	33	5	32	5	31	5	29
6	5	29	5	28	5	27	5	25	5	24	5	22
7	5	23	5	22	5	20	5	19	5	17	5	15
8	5	17	5	16	5	14	5	12	5	10	5	8
9	5	12	5	10	5	8	5	5	5	3	5	2
10	5	5	5	3	5	1	4	59	4	56	4	53
11	4	59	4	57	4	54	4	52	4	49	4	46
12	4	53	4	51	4	48	4	45	4	42	4	38
13	4	47	4	44	4	41	4	38	4	34	4	30
14	4	41	4	37	4	34	4	30	4	27	4	23
15	4	34	4	31	4	27	4	23	4	19	4	14
16	4	27	4	24	4	20	4	15	4	11	4	6
17	4	21	4	17	4	12	4	8	4	3	3	57
18	4	14	4	9	4	5	4	0	3	54	3	48
19	4	7	4	2	3	56	3	51	3	45	3	39
20	3	59	3	54	3	49	3	43	3	36	3	29
21	3	52	3	46	3	40	3	34	3	27	3	19
22	3	44	3	38	3	31	3	24	3	17	3	9
23	3	36	3	29	3	23	3	15	3	6	2	57
24	3	27	3	20	3	13	3	5	2	55	2	45

at *Aberdeen* in *Scotland*, on the Longest Day, the Latitude of that Place is accounted 57 Deg. 7 Min. North, and the Sun's Declination 23 Deg. 29 Min. likewise North. By these you will find by the Table, that 4 Min. for the Sun's Declination, and 1 Min. for the Latitude of the Place, are both to be added to 8 Hours 50 Min. the Time belonging to 57 Deg. of Latitude and 23 Deg. of North Declination, and the Sum will be 8 Hours 55 Min. the Time of his apparent Setting at *Aberdeen*, on the longest Day, whose Complement to 12 Hours, *viz.* 3 Hours 5 Min. will be the Time of his Rising, &c.

A Table of the Sun's right Ascension in Time, exactly calculated according to the greatest Obliquity of the Eclipse 23deg. 29m.

Days	♈			♉			♊			♋			♌					
	h.	m.	s.	h.	m.	s.	h.	m.	s.	h.	m.	s.	h.	m.	s.			
0	0	0	0	1	51	37	3	51	14	6	0	0	8	8	46	10	8	23
1	0	3	40	1	55	26	3	55	25	6	4	22	8	12	55	10	12	12
2	0	7	20	1	59	16	3	59	15	6	8	47	8	17	44	10	16	11
3	0	11	0	2	3	7	4	3	47	6	13	5	8	21	12	10	19	49
4	0	14	41	2	6	58	4	7	59	6	17	26	8	25	20	10	23	30
5	0	18	21	2	10	50	4	12	12	6	21	48	8	29	26	10	27	23
6	0	22	2	2	14	43	4	16	21	6	26	9	8	33	32	10	31	9
7	0	25	42	2	18	36	4	20	40	6	30	30	8	37	38	10	34	55
8	0	29	23	2	22	30	4	24	54	6	34	51	8	41	42	10	38	40
9	0	33	4	2	26	24	4	29	9	6	39	11	8	45	46	10	42	25
10	0	36	45	2	30	20	4	33	25	6	43	32	8	49	49	10	46	10
11	0	40	26	2	34	6	4	37	41	6	47	52	8	53	52	10	49	54
12	0	44	8	2	38	12	4	41	52	6	52	12	8	57	53	10	53	37
13	0	47	49	2	42	9	4	46	16	6	56	31	9	1	54	10	57	21
14	0	51	31	2	46	8	4	50	33	7	0	30	9	5	54	11	1	4
15	0	55	14	2	50	6	4	54	51	7	5	9	9	9	54	11	4	46
16	0	58	56	2	54	6	4	59	10	7	9	27	9	13	52	11	8	29
17	1	2	39	2	58	6	5	3	29	7	13	44	9	17	51	11	12	11
18	1	6	23	3	2	7	5	7	48	7	18	2	9	21	48	11	15	52
19	1	10	6	3	6	8	5	12	8	7	22	19	9	25	44	11	19	35
20	1	15	50	3	10	11	5	16	28	7	26	35	9	29	40	11	23	15
21	1	17	35	3	14	14	5	20	49	7	30	51	9	33	36	11	26	56
22	1	21	20	3	18	18	5	25	9	7	35	6	9	37	30	11	30	37
23	1	25	5	3	22	22	5	29	30	7	39	20	9	41	24	11	34	18
24	1	28	51	3	26	28	5	33	51	7	43	35	9	45	17	11	37	58
25	1	32	37	3	30	34	5	38	12	7	47	48	9	49	10	11	41	39
26	1	36	24	3	34	40	5	42	34	7	52	1	9	53	2	11	45	19
27	1	40	11	3	38	48	5	46	55	7	56	13	9	56	53	11	49	0
28	1	43	59	3	42	56	5	51	17	8	0	25	10	0	44	11	52	40
29	1	47	48	3	47	5	5	55	38	8	4	35	10	4	34	11	56	20
30	1	51	37	3	51	14	6	0	0	8	8	46	10	8	23	12	0	0

A D V E R T I S E M E N T.

THE Author of this Ephemeris, desires all those who shall favour him with their Letters, especially concerning Points of Curiosity, to pay the Postage; if not, their Letters will be return'd unanswered.

A Table of the Sun's right Ascension in Time, exactly calculated according to the greatest Obliquity of the Ecliptic 23 deg. 29 min.

Degr.	♈			♉			♊			♋			♌					
	h.	m.	s.	h.	m.	s.	h.	m.	s.	h.	m.	s.	h.	m.	s.			
0	12	0	0	13	51	37	15	51	14	18	0	0	20	8	46	22	8	23
1	12	3	40	13	55	26	15	55	25	18	4	22	20	12	55	22	12	12
2	12	7	20	13	59	16	15	59	35	18	8	43	20	17	4	22	16	1
3	12	11	0	14	3	7	16	3	47	18	13	5	20	21	12	22	19	49
4	12	14	41	14	6	68	16	7	59	18	17	26	20	25	20	22	23	36
5	12	18	21	14	10	50	16	12	12	18	21	48	20	29	26	22	27	23
6	12	22	2	14	14	43	16	16	25	18	25	9	20	33	32	22	31	9
7	12	25	42	14	18	36	16	20	40	18	30	30	20	37	38	22	34	55
8	12	29	23	14	22	30	16	24	54	18	34	51	20	41	42	22	38	40
9	12	33	4	14	26	24	16	29	9	18	39	11	20	45	46	22	42	25
10	12	36	45	14	30	20	16	33	25	18	43	32	20	49	49	22	46	10
11	12	40	26	14	34	16	16	37	41	18	47	52	20	53	52	22	49	54
12	12	44	8	14	38	12	16	41	58	18	52	12	20	57	53	22	53	37
13	12	47	49	14	42	9	16	46	16	18	56	31	21	1	54	22	57	21
14	12	51	31	14	46	8	16	50	33	19	0	50	21	5	54	23	1	4
15	12	55	14	14	50	6	16	54	51	19	5	9	21	9	54	23	4	46
16	12	58	56	14	54	6	16	59	10	19	9	27	21	13	52	23	8	29
17	13	2	39	14	58	6	17	3	29	19	13	44	21	17	51	23	12	11
18	13	6	23	15	2	7	17	7	48	19	18	2	21	21	48	23	15	50
19	13	10	6	15	6	8	17	12	8	19	22	19	21	25	44	23	19	34
20	13	13	50	15	10	11	17	16	28	19	26	35	21	29	40	23	23	15
21	13	17	35	15	14	14	17	20	49	19	30	51	21	33	36	23	26	56
22	13	21	20	15	18	18	17	25	9	19	35	6	21	37	30	23	30	37
23	13	25	5	15	22	22	17	29	30	19	39	20	21	41	24	23	34	18
24	13	28	51	15	26	28	17	33	51	19	43	35	21	45	17	23	37	58
25	13	32	37	15	30	34	17	38	12	19	47	48	21	49	10	23	41	39
26	13	36	24	15	34	40	17	42	34	19	52	1	21	53	2	23	45	19
27	13	40	11	15	38	48	17	46	55	19	56	13	21	56	53	23	49	0
28	13	43	59	15	42	56	17	51	17	20	0	25	22	0	44	23	52	40
29	13	47	48	15	47	5	17	55	38	20	4	35	22	4	34	23	56	20
30	13	51	37	15	51	14	18	0	0	20	8	46	22	8	23	24	0	0

*The Use of the Table of the fixed Stars, and of the
Sun's right Ascension in Time.*

THE Time of the Southing or Meridian Transits of the tabulated fixed Stars may be very exactly found after this Manner:

On the Noon of the Day, preceding the Night, in which you desire to know the Time of the Southing of any of these Stars, find by the EPHEMERIS the Sun's Place, and with it take out of the Table his right Ascension in Time. This you may do to a Minute by Inspection, which will be sufficient for your present Purpose: Then from the right Ascension of the Star, as it is placed in the Table, subtract the right Ascension of the Sun, the Remainder will be the estimate Time of the Stars Southing, and will not differ from the true Time above two or three Minutes at farthest, which may be near enough for ordinary Uses: But if Exactness is required, then reduce the Sun's Place to this estimate Time, and take out of the Table his right Ascension in Hours, Minutes and Seconds, and Subtract it from that of the Star, the remaining Numbers will shew the true Time of the Star's Culmination or Southing. And if from the Time of the Stars Southing you subtract the semi-diurnal Arch belonging to it, the Remainder will be the Time of the Star's visible Rising; and being added to it, the Sum will be the Time of its visible Setting.

EXAMPLE of ARCTURUS, May 17th this Year.

Place of the Sun at Noon	— — — — —	☉	26	43
		h.	m	f.
Right Ascension of Arcturus	— — — — —	14	5	8
Right Ascension of the Sun subtract	— — — — —	3	37	38
Estimate Time of the Star's Southing	— — — — —	10	27	30
Right Ascension of the Sun at that Time subtract	— — — — —	3	39	21
True Time of the Star's Southing	— — — — —	10	25	47
Semi-diurnal Arch Subtract and add	— — — — —	7	56	13
True Time of the Star's Visible Rising Altern.	— — — — —	2	29	34
True Time of the Star's visible Setting next Morning.	— — — — —	6	22	0

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