

# TETRADS: Total Lunar Eclipse Calendars (BLOOD MOONS)

There were apparently 56 blood moon tetrads between Abraham and Messiah Yeshua, just as there have been 56 tetrads between Messiah and now. While that's an interesting symmetry (7 [perfection] x 8 [new beginnings]), it does go to show that tetrads aren't all that uncommon. It's in their falling on the Divine Appointed Times (*Moeds*) that make them interesting. In the original Hebrew, Moeds were part of the purpose of the sun and the moon. **Gen 1:14** "And God said, "let there be lights in the vault of the sky to separate the day from the night, and let them serve as signs to mark sacred times, and days and years." This NIV translation has it more precise than many other versions. Sacred times is often translated as seasons, but is actually the word, Moed. Same as the sacred Feasts ... The Divine Appointed Times.

If you query online the words "Set times in Hebrew," this is what you will find:

**Moed** ([Hebrew](#): מועד, "Festivals")

## Strong's Concordance

**Moed**: appointed time, place, or meeting

Original Word: מועד

Part of Speech: Noun Masculine

Transliteration: moed

Phonetic Spelling: (mo-ade')

Short Definition: meeting

## Strong's Exhaustive Concordance

Appointed sign, time, place of, solemn assembly, congregation, set, **solemn feast**

Or moled {mo-ade'}; or (feminine) mowedah (2 Chronicles 8:13) {mo-aw-daw'}; from [va'ad](#); properly, an appointment, i.e. A fixed time or season; **specifically, a festival**; conventionally a year; **by implication, an assembly (as convened for a definite purpose)**; technically the congregation; by extension, the place of meeting; also a signal (as appointed beforehand) -- appointed (sign, time), (place of, solemn) assembly, congregation, (**set, solemn**) **feast**, (appointed, due) season, solemn(-ity), synagogue, (set) time (appointed).

## NAS Exhaustive Concordance

Definition

Appointed time, place, or meeting

NASB Translation

appointed (3), **appointed feast (3), appointed feasts (11), appointed festival (2)**, appointed meeting place (1), appointed place (1), appointed sign (1), appointed time (21), appointed times (8), appointment (1), assembly (2), definite time (1), feasts (2), **festal assemblies (1), fixed festivals (3)**, meeting (147), meeting place (1), meeting places (1), season (4), seasons (3), set time (1), time (3), times (1), times appointed (1).

## **What is a Tetrad?**

**When four consecutive lunar eclipses are all total eclipses, the group is known as a tetrad.**

A full lunar eclipse can often result in the moon appearing red or orange, and sometimes even a deep red which is sometimes referred to as a “blood moon.” Lunar eclipses can be accurately predicted as well as charted in the past. The <https://eclipses.gsfc.nasa.gov/lunar.html> has a complete listing of 5000 years of eclipse data.

An event that is rare astronomically is for 4 full Lunar eclipses to occur in succession. Usually, a number of partial eclipses occur between the times of total Lunar eclipses. Even more remarkable is for such a tetrad of Lunar eclipses to occur on Jewish feast days (whether visible from Israel or not).

## **What is a Saros Cycle?**

The Saros Cycle is an eclipse cycle with a period of about 18 years 11 days 8 hours (approximately 65851/3 days) that can be used to predict eclipses of the Sun and Moon. One cycle after an eclipse, the Sun, Earth, and Moon return to approximately the same relative geometry, and a nearly identical eclipse will occur west of the original location.

## **Tetrads (Blood Moons) and Jewish Feast Days**

The tetrad event only occurred twice in the last century: in 1949 & 1950, then in 1967 & 1968. In each case, the 4 total Lunar eclipses occurred in succession on the Feasts of Passover and the Feast of Tabernacles two years in a row. The dates were the 13th of April and 7th of October, 1949 and the 2nd of April and 26th of September, 1950.

The second tetrad occurred on the 24th of April and 18th of October, 1967; then again on the 13th of April and 6th of October, 1968. It is interesting that the first tetrad of lunar eclipses in the 20th century occurred immediately after Israel became a nation on 14th May, 1948, and the second tetrad surrounded the return of the Old City of Jerusalem to Jewish control on the 7th of June, 1967 (The Six Day War).

**Total Solar eclipses are not common.** In 1967, there were two total solar eclipses, namely on the 9th of May and 2nd November. When solar events like this are linked with total lunar eclipse tetrads, the chance of this happening is extremely low. Under these circumstances, it may be that the Lord is calling to our attention the significant event in *His* Program and for the nation of Israel which occurred that year.

There is something similar for the formation of Israel in 1948. On the 20th of May 1947, there was a total solar eclipse, with the next eclipse being annular. An annular eclipse is essentially the same as a total Solar eclipse except that there is a very small ring of light from the Sun around the outside edge of the Moon which is blocking the rest of the Sun’s light. This annular eclipse occurred on the 12th of November 1947. Then in 1948, there was another annular eclipse on the 9th of May, just before the birth of the state of Israel, with another total solar eclipse on the 1st of November 1948.

The Tetrad of 1949 through 1950 may be tied to the rebirth of the nation of Israel. Declared May 14, 1948. It should be noted here that even though Israel declared themselves a nation in 1948, the first permanent government took office on Jan 25, 1949. Israel had a transitional government in 1948. In this way the tetrad can tie to the year 1949 for the first elected office of that year and the birth year still be 1948.

April 13, 1949	<b>Passover</b>	Total Lunar Eclipse	Saros Cycle 121
October 7, 1949	<b>Feast of Tabernacles</b>	Total Lunar Eclipse	Saros Cycle 126
April 2, 1950	<b>Passover</b>	Total Lunar Eclipse	Saros Cycle 131
September 26, 1950	<b>Feast of Tabernacles</b>	Total Lunar Eclipse	Saros Cycle 136

The Tetrad of 1967 - 1968 Tied to the 6th day war where Israel recaptured Jerusalem

April 24, 1967	<b>Passover</b>	Total Lunar Eclipse	Saros Cycle 121
October 18, 1967	<b>Feast of Tabernacles</b>	Total Lunar Eclipse	Saros Cycle 126
April 13, 1968	<b>Passover</b>	Total Lunar Eclipse	Saros Cycle 131
October 6, 1968	<b>Feast of Tabernacles</b>	Total Lunar Eclipse	Saros Cycle 136

**There were NO lunar eclipse tetrads in the 1600's or the 1700's or the 1800's!**

The tetrad's occurring in this century began on Passover April 15th 2014, followed by The Feast of Tabernacles on October 8th 2014; then again on Passover April 4th 2015 and finally on The Feast of Tabernacles on the 28th of September 2015. The first Solar eclipse occurred on 1st Nisan (March 20th) 2015, and was total. The second was on Rosh Hashanah (September 14th) 2015, and was partial. So there was a culmination of significant astronomical events in September 2015 with a partial Solar eclipse for Rosh Hashanah just a few days before the Day of Atonement September 23rd, and followed a few days after by a total Lunar eclipse on the Feast Of Tabernacles.

The Tetrad of 2014 through 2015

April 15, 2014	<b>Passover</b>	Total Lunar Eclipse	Saros Cycle 122
October 8, 2014	<b>Feast of Tabernacles</b>	Total Lunar Eclipse	Saros Cycle 127
April 4, 2015	<b>Passover</b>	Total Lunar Eclipse	Saros Cycle 132
September 28, 2015	<b>Feast of Tabernacles</b>	Total Lunar Eclipse	Saros Cycle 137

## NASA Total Lunar Eclipse Calendar

The following tetrads will occur during this century:

1. Tetrad: 2032 - 2033
2. Tetrad: 2043 - 2044
3. Tetrad: 2050 - 2051
4. Tetrad: 2061 - 2062
5. Tetrad: 2072 - 2073
6. Tetrad: 2090 - 2091

### 2033 - TETRAD

**Feast of Passover – April 14, 2033**  
**Feast of Tabernacles – October 8, 2033**

#### Lunar Eclipses: 2031 - 2040

Calendar Date	TD of Greatest Eclipse	Eclipse Type	Saros Series	Umbral Magnitude	Eclipse Duration	Geographic Region of Eclipse Visibility
<a href="#">2031 May 07</a>	03:52:02	Penumbral	<a href="#">112</a>	-0.090	-	Americas, Europe, Africa
<a href="#">2031 Jun 05</a>	11:45:17	Penumbral	<a href="#">150</a>	-0.820	-	East Indies, Australia, Pacific
<a href="#">2031 Oct 30</a>	07:46:45	Penumbral	<a href="#">117</a>	-0.320	-	Americas
<a href="#">2032 Apr 25</a>	15:14:51	<b>Total</b>	<a href="#">122</a>	1.191	<b>03h31m</b> 01h06m	<b>e Africa, Asia, Australia, Pacific</b>
<a href="#">2032 Oct 18</a>	19:03:40	<b>Total</b>	<a href="#">127</a>	1.103	<b>03h16m</b> 00h47m	<b>Africa, Europe, Asia, Australia</b>
<a href="#">2033 Apr 14</a>	19:13:51	<b>Total</b>	<a href="#">132</a>	1.094	<b>03h35m</b> 00h49m	<b>Europe, Africa, Asia, Australia</b>
<a href="#">2033 Oct 08</a>	10:56:23	<b>Total</b>	<a href="#">137</a>	1.350	<b>03h22m</b> 01h19m	<b>Asia, Australia, Pacific, Americas</b>
<a href="#">2034 Apr 03</a>	19:06:59	Penumbral	<a href="#">142</a>	-0.227	-	Europe, Africa, Asia, Australia
<a href="#">2034 Sep 28</a>	02:47:37	Partial	<a href="#">147</a>	0.014	00h27m	Americas, Europe, Africa
<a href="#">2035 Feb 22</a>	09:06:12	Penumbral	<a href="#">114</a>	-0.053	-	e Asia, Pacific, Americas

<a href="#">2035 Aug 19</a>	01:12:15	Partial	<a href="#">119</a>	0.104	01h17m	Americas, Europe, Africa, Mid East
<a href="#">2036 Feb 11</a>	22:13:06	Total	<a href="#">124</a>	1.299	03h22m <b>01h14m</b>	Americas, Europe, Africa,, Asia, w Australia
<a href="#">2036 Aug 07</a>	02:52:32	Total	<a href="#">129</a>	1.454	03h51m <b>01h35m</b>	Americas, Europe, Africa, w Asia
<a href="#">2037 Jan 31</a>	14:01:38	Total	<a href="#">134</a>	1.207	03h17m <b>01h04m</b>	e Europe, e Africa, Asia, Australia, Pacific, N.A.
<a href="#">2037 Jul 27</a>	04:09:53	Partial	<a href="#">139</a>	0.809	03h12m	Americas, Europe, Africa
<a href="#">2038 Jan 21</a>	03:49:52	Penumbral	<a href="#">144</a>	-0.114	-	Americas, Europe, Africa
<a href="#">2038 Jun 17</a>	02:45:02	Penumbral	<a href="#">111</a>	-0.527	-	e N. America, C. & S. America, Africa, w Europe
<a href="#">2038 Jul 16</a>	11:35:56	Penumbral	<a href="#">149</a>	-0.495	-	Australia, e Asia, Pacific, w Americas
<a href="#">2038 Dec 11</a>	17:44:60	Penumbral	<a href="#">116</a>	-0.289	-	Europe, Africa, Asia, Australia
<a href="#">2039 Jun 06</a>	18:54:25	Partial	<a href="#">121</a>	0.885	02h59m	Europe, Africa, Asia, Australia
<a href="#">2039 Nov 30</a>	16:56:28	Partial	<a href="#">126</a>	0.943	03h26m	Europe, Africa, Asia, Australia, Pacific
<a href="#">2040 May 26</a>	11:46:22	Total	<a href="#">131</a>	1.535	03h31m <b>01h32m</b>	e Asia, Australia, Pacific, w Americas
<a href="#">2040 Nov 18</a>	19:04:41	Total	<a href="#">136</a>	1.397	03h40m <b>01h28m</b>	e Americas, Europe, Africa, Asia, Australia

### Lunar Eclipses: 2041 - 2050

#### **NO JEWISH FEAST DAYS ON TETRADES DURING THIS DECADE**

Calendar Date	TD of Greatest Eclipse	Eclipse Type	Saros Series	Umbral Magnitude	Eclipse Duration	Geographic Region of Eclipse Visibility
<a href="#">2041 May 16</a>	00:43:03	Partial	<a href="#">141</a>	0.064	00h58m	e Americas, Europe, Africa, w Asia
<a href="#">2041 Nov 08</a>	04:35:05	Partial	<a href="#">146</a>	0.170	01h30m	Americas, Europe, Africa
<a href="#">2042 Apr 05</a>	14:30:11	Penumbral	<a href="#">113</a>	-0.218	-	Asia, Australia, Pacific
<a href="#">2042 Sep 29</a>	10:45:47	Penumbral	<a href="#">118</a>	-0.003	-	Asia, Australia, Pacific, Americas
<a href="#">2043 Mar 25</a>	14:32:04	Total	<a href="#">123</a>	1.114	03h35m <b>00h53m</b>	e Africa, e Europe, Asia, Australia, Pacific, w N.A.
<a href="#">2043 Sep 19</a>	01:51:50	Total	<a href="#">128</a>	1.256	03h26m <b>01h12m</b>	Americas, Europe, Africa, w Asia

						<b>01h12m</b>	
<a href="#">2044 Mar 13</a>	19:38:33	Total	<a href="#">133</a>	1.203		03h29m <b>01h06m</b>	e S America, Europe, Africa, Asia, Australia
<a href="#">2044 Sep 07</a>	11:20:44	Total	<a href="#">138</a>	1.046		03h26m <b>00h34m</b>	e Asia, Australia, Pacific, Americas
<a href="#">2045 Mar 03</a>	07:43:26	Penumbral	<a href="#">143</a>	-0.017	-		Americas
<a href="#">2045 Aug 27</a>	13:54:50	Penumbral	<a href="#">148</a>	-0.392	-		Asia, Australia, w N America
<a href="#">2046 Jan 22</a>	13:02:37	Partial	<a href="#">115</a>	0.053		00h50m	Asia, Australia, N America
<a href="#">2046 Jul 18</a>	01:06:05	Partial	<a href="#">120</a>	0.246		01h55m	Americas, Europe, Africa, w Asia
<a href="#">2047 Jan 12</a>	01:26:14	Total	<a href="#">125</a>	1.234		03h29m <b>01h10m</b>	Americas, Europe, Africa, Asia
<a href="#">2047 Jul 07</a>	10:35:45	Total	<a href="#">130</a>	1.751		03h39m <b>01h41m</b>	e Asia, Australia, Pacific, Americas
<a href="#">2048 Jan 01</a>	06:53:55	Total	<a href="#">135</a>	1.128		03h34m <b>00h56m</b>	ne Asia, Pacific, Americas, w Europe, w Africa
<a href="#">2048 Jun 26</a>	02:02:28	Partial	<a href="#">140</a>	0.639		02h39m	Americas, Europe, Africa
<a href="#">2048 Dec 20</a>	06:27:48	Penumbral	<a href="#">145</a>	-0.144	-		Americas, Europe, w Africa
<a href="#">2049 May 17</a>	11:26:39	Penumbral	<a href="#">112</a>	-0.209	-		e Asia, Australia, Pacific, w Americas
<a href="#">2049 Jun 15</a>	19:14:12	Penumbral	<a href="#">150</a>	-0.699	-		Europe, Africa, Asia, Australia
<a href="#">2049 Nov 09</a>	15:52:11	Penumbral	<a href="#">117</a>	-0.355	-		Europe, Africa, Asia, Australia, Pacific, nw N.A.
<a href="#">2050 May 06</a>	22:32:02	Total	<a href="#">122</a>	1.077		03h26m <b>00h43m</b>	e Americas, Europe, Africa, Asia, w Australia
<a href="#">2050 Oct 30</a>	03:21:47	Total	<a href="#">127</a>	1.054		03h13m <b>00h34m</b>	Americas, Europe, Africa, w Asia

### **Lunar Eclipses: 2051 - 2060**

#### **NO JEWISH FEAST DAYS ON TETRADES DURING THIS DECADE**

Calendar Date	TD of Greatest Eclipse	Eclipse Type	Saros Series	Umbral Magnitude	Eclipse Duration	Geographic Region of Eclipse Visibility
<a href="#">2051 Apr 26</a>	02:16:28	Total	<a href="#">132</a>	1.202	03h41m <b>01h10m</b>	Americas, Europe, Africa, w Asia

<a href="#">2051 Oct 19</a>	19:11:50	Total	<a href="#">137</a>	1.412	03h24m <b>01h24m</b>	e S America, Europe, Africa, Asia, Australia
<a href="#">2052 Apr 14</a>	02:18:06	Penumbra	<a href="#">142</a>	-0.131	-	Americas, Europe, Africa, w Asia
<a href="#">2052 Oct 08</a>	10:45:58	Partial	<a href="#">147</a>	0.082	01h03m	e Asia, Australia, Americas
<a href="#">2053 Mar 04</a>	17:22:10	Penumbra	<a href="#">114</a>	-0.081	-	Europe, Africa, Asia, Australia, e N America
<a href="#">2053 Aug 29</a>	08:05:50	Penumbra	<a href="#">119</a>	-0.033	-	e Asia, Australia, Americas, w Africa, w Europe
<a href="#">2054 Feb 22</a>	06:51:27	Total	<a href="#">124</a>	1.277	03h21m <b>01h12m</b>	e Asia, e Australia, Americas, Europe, w Africa
<a href="#">2054 Aug 18</a>	09:26:30	Total	<a href="#">129</a>	1.306	03h47m <b>01h23m</b>	e Asia, Australia, Americas, w Africa
<a href="#">2055 Feb 11</a>	22:46:17	Total	<a href="#">134</a>	1.225	03h18m <b>01h06m</b>	Americas, Europe, Africa, Asia, w Australia
<a href="#">2055 Aug 07</a>	10:53:18	Partial	<a href="#">139</a>	0.959	03h23m	e Asia, Australia, Americas
<a href="#">2056 Feb 01</a>	12:26:06	Penumbra	<a href="#">144</a>	-0.110	-	e Asia, Australia, N America, w S America
<a href="#">2056 Jun 27</a>	10:03:09	Penumbra	<a href="#">111</a>	-0.652	-	e Asia, Australia, sw N America, S America
<a href="#">2056 Jul 26</a>	18:43:24	Penumbra	<a href="#">149</a>	-0.349	-	Europe, Africa, Asia, Australia
<a href="#">2056 Dec 22</a>	01:48:56	Penumbra	<a href="#">116</a>	-0.311	-	Americas, Europe, Africa, w Asia
<a href="#">2057 Jun 17</a>	02:26:20	Partial	<a href="#">121</a>	0.755	02h49m	Americas, Europe, Africa, Middle East
<a href="#">2057 Dec 11</a>	00:53:38	Partial	<a href="#">126</a>	0.918	03h24m	Americas, Europe, Africa, Asia
<a href="#">2058 Jun 06</a>	19:15:48	Total	<a href="#">131</a>	1.661	03h33m <b>01h37m</b>	e S America, Europe, Africa, Asia, Australia
<a href="#">2058 Nov 30</a>	03:16:18	Total	<a href="#">136</a>	1.426	03h41m <b>01h30m</b>	nw Asia, Americas, Europe, Africa
<a href="#">2059 May 27</a>	07:55:35	Partial	<a href="#">141</a>	0.183	01h37m	e Indies, Australia, Americas, w Africa
<a href="#">2059 Nov 19</a>	13:01:36	Partial	<a href="#">146</a>	0.208	01h39m	e Europe, e Africa, Asia, Australia, N America
<a href="#">2060 Apr 15</a>	21:37:04	Penumbra	<a href="#">113</a>	-0.316	-	S America, Europe, Africa, Asia, Australia
<a href="#">2060 Oct 09</a>	18:53:32	Penumbra	<a href="#">118</a>	-0.080	-	e S America, Europe, Africa, Asia, Australia
<a href="#">2060 Nov 08</a>	04:04:15	Penumbra	<a href="#">156</a>	-0.938	-	Americas, Europe, Africa, w Asia

## Lunar Eclipses: 2071 - 2080

### NO JEWISH FEAST DAYS ON TETRADES DURING THIS DECADE

Calendar Date	TD of Greatest Eclipse	Eclipse Type	Saros Series	Umbral Magnitude	Eclipse Duration	Geographic Region of Eclipse Visibility
<a href="#">2071 Mar 16</a>	01:31:09	Penumbral	<a href="#">114</a>	-0.119	-	Americas, Europe, Africa, w Asia
<a href="#">2071 Sep 09</a>	15:05:41	Penumbral	<a href="#">119</a>	-0.159	-	e Europe, e Africa, Asia, Australia, w N.A.
<a href="#">2072 Mar 04</a>	15:23:07	Total	<a href="#">124</a>	1.244	03h19m <b>01h08m</b>	e Europe, e Africa, Asia, Australia, w N.A.
<a href="#">2072 Aug 28</a>	16:05:42	Total	<a href="#">129</a>	1.166	03h40m <b>01h04m</b>	Europe, Africa, Asia, Australia, w N America
<a href="#">2073 Feb 22</a>	07:24:53	Total	<a href="#">134</a>	1.250	03h20m <b>01h09m</b>	e Asia, e Australia, Americas, Europe, w Africa
<a href="#">2073 Aug 17</a>	17:42:41	Total	<a href="#">139</a>	1.101	03h32m <b>00h50m</b>	Europe, Africa, Asia, Australia
<a href="#">2074 Feb 11</a>	20:55:58	Penumbral	<a href="#">144</a>	-0.097	-	e Americas, Europe, Africa, Asia, Australia
<a href="#">2074 Jul 08</a>	17:21:38	Penumbral	<a href="#">111</a>	-0.777	-	e Africa, s Asia, Australia,
<a href="#">2074 Aug 07</a>	01:56:03	Penumbral	<a href="#">149</a>	-0.209	-	Americas, Europe, Africa, Middle East
<a href="#">2075 Jan 02</a>	09:55:03	Penumbral	<a href="#">116</a>	-0.327	-	e Asia, Australia, Americas
<a href="#">2075 Jun 28</a>	09:55:35	Partial	<a href="#">121</a>	0.622	02h37m	e Asia, Australia, Americas
<a href="#">2075 Dec 22</a>	08:55:55	Partial	<a href="#">126</a>	0.901	03h23m	e Asia, Australia, Americas, w Africa, Europe
<a href="#">2076 Jun 17</a>	02:39:47	Total	<a href="#">131</a>	1.794	03h35m <b>01h40m</b>	Americas, Europe, Africa, Middle East
<a href="#">2076 Dec 10</a>	11:34:51	Total	<a href="#">136</a>	1.446	03h41m <b>01h31m</b>	e Europe, Asia, Australia, Americas
<a href="#">2077 Jun 06</a>	14:59:52	Partial	<a href="#">141</a>	0.312	02h05m	e Africa, s Asia, Australia
<a href="#">2077 Nov 29</a>	21:35:53	Partial	<a href="#">146</a>	0.236	01h45m	e Americas, Europe, Africa, Asia, w Australia
<a href="#">2078 Apr 27</a>	04:35:44	Penumbral	<a href="#">113</a>	-0.425	-	Americas, Europe, Africa
<a href="#">2078 Oct 21</a>	03:08:03	Penumbral	<a href="#">118</a>	-0.146	-	Americas, Europe, Africa, w Asia
<a href="#">2078 Nov 19</a>	12:40:04	Penumbral	<a href="#">156</a>	-0.905	-	ne Europe, Asia, Australia, N America
<a href="#">2079 Apr 16</a>	05:10:45	Partial	<a href="#">123</a>	0.945	03h23m	e Australia, Americas, Europe, Africa



<a href="#">2079 Oct 10</a>	17:30:30	Total	<a href="#">128</a>	1.079	03h19m <b>00h42m</b>	Europe, Africa, Asia, Australia, nw N America
<a href="#">2080 Apr 04</a>	11:23:38	Total	<a href="#">133</a>	1.346	03h34m <b>01h22m</b>	e Asia, Australia, Americas
<a href="#">2080 Sep 29</a>	01:52:42	Total	<a href="#">138</a>	1.244	03h37m <b>01h14m</b>	Americas, Europe, Africa, w Asia

## **Lunar Eclipses: 2081 - 2090**

### **NO JEWISH FEAST DAYS ON TETRADS DURING THIS DECADE**

Calendar Date	TD of Greatest Eclipse	Eclipse Type	Saros Series	Umbral Magnitude	Eclipse Duration	Geographic Region of Eclipse Visibility
<a href="#">2081 Mar 25</a>	00:22:01	Partial	<a href="#">143</a>	0.095	01h07m	e Americas, Europe, Africa, w Asia
<a href="#">2081 Sep 18</a>	03:35:26	Penumbral	<a href="#">148</a>	-0.154	-	Americas, Europe, Africa, w Asia
<a href="#">2082 Feb 13</a>	06:29:19	Partial	<a href="#">115</a>	0.013	00h26m	ne Asia, Americas, Europe, w Africa
<a href="#">2082 Aug 08</a>	14:46:42	Penumbral	<a href="#">120</a>	-0.029	-	e Africa, Asia, Australia, w N America
<a href="#">2083 Feb 02</a>	18:26:46	Total	<a href="#">125</a>	1.205	03h29m <b>01h07m</b>	Europe, Africa, Asia, Australia, nw N America
<a href="#">2083 Jul 29</a>	01:05:34	Total	<a href="#">130</a>	1.477	03h33m <b>01h30m</b>	Americas, Europe, Africa, w Asia, w Australia
<a href="#">2084 Jan 22</a>	23:13:00	Total	<a href="#">135</a>	1.151	03h36m <b>01h01m</b>	Americas, Europe, Africa, Asia, w Australia
<a href="#">2084 Jul 17</a>	16:58:51	Partial	<a href="#">140</a>	0.912	03h01m	e Europe, e Africa, Asia, Australia
<a href="#">2085 Jan 10</a>	22:32:29	Penumbral	<a href="#">145</a>	-0.112	-	Americas, Europe, Africa, Asia, w Australia
<a href="#">2085 Jun 08</a>	02:17:36	Penumbral	<a href="#">112</a>	-0.468	-	Americas, Europe, Africa, w Asia
<a href="#">2085 Jul 07</a>	10:04:40	Penumbral	<a href="#">150</a>	-0.448	-	e Asia, Australia, Americas
<a href="#">2085 Dec 01</a>	08:25:35	Penumbral	<a href="#">117</a>	-0.396	-	ne Asia, e Australia, Americas, w Africa, Europe
<a href="#">2086 May 28</a>	12:43:47	Partial	<a href="#">122</a>	0.818	03h09m	e Africa, e Asia, Australia, w Americas
<a href="#">2086 Nov 20</a>	20:19:42	Partial	<a href="#">127</a>	0.986	03h08m	e Americas, Europe, Africa, Asia, Australia
<a href="#">2087 May 17</a>	15:55:20	Total	<a href="#">132</a>	1.455	03h51m <b>01h35m</b>	e Europe, e Africa, Asia, Australia

<a href="#">2087 Nov 10</a>	12:05:33	Total	<a href="#">137</a>	1.501	03h27m <b>01h29m</b>	ne Europe, Asia, Australia, Americas
<a href="#">2088 May 05</a>	16:16:50	Partial	<a href="#">142</a>	0.102	01h17m	e Europe, e Africa, Asia, Australia
<a href="#">2088 Oct 30</a>	03:03:20	Partial	<a href="#">147</a>	0.183	01h34m	Americas, Europe, Africa, w Asia
<a href="#">2089 Mar 26</a>	09:34:14	Penumbral	<a href="#">114</a>	-0.168	-	e Asia, Australia, Americas
<a href="#">2089 Sep 19</a>	22:11:17	Penumbral	<a href="#">119</a>	-0.274	-	e Australia, e Americas, Europe, Africa, w Asia

<a href="#">2090 Mar 15</a>	23:48:31	Total	<a href="#">124</a>	1.201	03h17m <b>01h03m</b>	Americas, Europe, Africa, w Asia, w Australia
<a href="#">2090 Sep 08</a>	22:52:29	Total	<a href="#">129</a>	1.038	03h33m <b>00h32m</b>	Americas, Europe, Africa, w Asia, Australia

