| CODE 228 | CODE 166 | CODE 196 | CODE 228 | CODE 243 | CODE 251 | CODE 294 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CODE 590 | CODE 427 | CODE 490 | CODE 590 | CODE 666 | CODE 01010 | CODE 1260 |
| CODE 1975 | CODE1447 | CODE 1900 | CODE 1975 | CODE 2300 | CODE 6000 | CODE 144000 |

Calendar Patterns by Floyd R. Cox (Revised 9/24/18)
The following table covers 2,000
Years divided into 19-year eclipses (repeated on the equinox, on $3 / 19-3 / 20$ )


## NASA vs Hebrew

Utopia Unveiled
Zionist, Catholic,
\& Lutheran Profiles
Captured by Conjecture
Book Review: When was the Crucifixion?
Context of Revelation
Book Review: Mystery of the Shemitah
Book Review:
The Harbinger
Ussher's Jubilee in 1975

CODE 166 CODE1447

CODE 196
CODE 490
CODE 1900

CODE 228
CODE 590 CODE 1975

CODE 243
CODE 666
CODE 2300

## Related Topics <br> Introduction to Code 251 <br> Ancient Riddle Solved <br> Jewish Timeline: <br> Creation in 3761 BC <br> Eight Forms of Zionism <br> Book Review: <br> "The Christian Passover" the $14^{\text {th }}$ or $15^{\text {th }}$ ?" <br> NASA Versus the Hebrew Calendar


http://code251.com/

## 19 years Cycle

$3 / 32=4 / 01$
3/19
$3 / 38=\frac{+19}{4 / 07}$
$\frac{-11}{3 / 27}$
-11
3/16
$3 / 35=\frac{+19}{4 / 04} \quad 3 / 47=\frac{+19}{4 / 16}$
-10
3/25
$\frac{-11}{3 / 14}$
$3 / 14$
+18
$3 / 32=\frac{+18}{4 / 01}$
$3 / 39=\frac{+18}{4 / 08}$
-11
$3 / 28$


4/06
$\frac{-11}{3 / 26}$
$3 / 26$
+18
$3 / 44=\frac{+18}{4 / 13}$
$3 / 44=4 / 13$
$-11$
4/02
$3 / 41=\frac{+20}{4 / 10}$
3

$-12$
$3 / 21$
$\frac{-12}{3 / 29}$
$\frac{-10}{3 / 19}$
3/19
$3 / 38=\widetilde{4 / 07}$

Solar Eclipse and New Moon Pattern on the Spring Equinox
The top numbers in TABLE 1 are dates when lunar years begin with solar eclipses (on new moons) on March 19 or March 20 (on the spring equinox). After 13 moons, the next year starts on April 7 or April 8, in the spring.

A new year was on $3 / 20 / 71$ CE. There was a solar eclipse/new moon/equinox.
This means the solar eclipse, new moon, new year pattern must begin when the extra $13^{\text {th }}$ moon is inserted seven times every 19-years into the Hebrew calendar of 3761 BCE or into the 19-year Babylonian calendar of 747 BCE or the 19-year Greek Meton calendar or Muhammad Muslim calendar of 622 CE or the NASA calendar. This pattern is there. The pattern must fit into when the $13^{\text {th }}$ moon is inserted about every three years (seven times in 19 years, in years $3,6,8,11,14,17$ or 19).

Other solar eclipses on a new lunar year on the spring equinox include:
1624
1681
1996
2034
with the same 19-yr. pattern

The Babylonian calendar's $9^{\text {th }}$ year of 19 (in the spring) is in the Hebrew calendar's first year (which allegedly begins in the fall). The first slither of new moons is seen $1-2$ days after dates in TABLE 1. Thus, the year of the Passover in 31 CE began on $4 / 10$, because a month earlier (on $3 / 12$ ) was too early for having a barley harvest. This same delay from $3 / 12$ to $4 / 10$ repeats in 2013, when snow was deep on the Passover., on March 20.

Note on TABLE 1 above.
Five Years (in the horizontal stripes) begin in the winter every 19 Years?

| First Month | Second Month |  |
| :--- | :---: | :---: |
| $1999(3 / 18$ | Hebrew Calendar $)$ | +19 yrs |
| $2002(3 / 14$ | Hebrew Calendar $)$ | 2018 (4/16 NASA) |
| $2007(3 / 20$ | Hebrew Calendar $)$ | $2021(4 / 12$ NASA $)$ |
| $2010(3 / 16$ | Hebrew Calendar $)$ | $2026(4 / 17$ NASA $)$ |
| $2013(3 / 12$ | Hebrew Calendar $)+19$ yrs | $2029(4 / 14$ NASA $)$ |

Note: During these five years, there are certain conditions for the Levites to postpone the Passover season until the second month without affecting the dates of the fall harvest. Starting the year on $3 / 20$ would place Trumpets on $9 / 13$. Postponing the entire year until after 4/17 would place Trumpets late, on $10 / 10$.

A 19-year eclipse-new moon-equinox pattern is perman-ently set and immovable and does not allow the second month to postpone the entire year unless it fits the pattern. It would ruin the pattern.

We can alter calendars, but we cannot change the equinox, eclipses and new moons. Calendars are not sacred.

Of course, the pattern allegedly applies only to conditions in Israel, which makes it seem to appear racial or very nationalistic, that is, spring and fall only in Israel.

From the Australian barley harvest ( -35 degrees S) to Canada (56 degrees N ), seasons and other conditions differ greatly (fall harvest in the north is spring in the south)... and there is no "first visible slither" of the new moon seen from Jerusalem when the new year begins with an eclipse on 3/20.

In 2013, there was snow in central Indiana up to cars' hubcaps on the Passover, and all twelve tribes would not have found barley throughout Israel for the Wave Sheaf Offering on the first Sunday, during the first full moon, after the spring equinox (which is on March 20).

The same problem is repeated in 2018, when the Hebrew calendar year began on $3 / 17$. It was a cold spring with several snows, but barley was reaped 35 miles southwest of Jerusalem (shown HERE), which could be transformed into solid grain by parching it (Lev 23:14; Josh 5:11; I Sam 17:17; I Sam 25:18; Lev 2:14), but this is not in northern Israel. An article on this harvest is found HERE.

Dan = latitude 33.239637 north (Atlanta, GA $=33.748995$ )
Jerusalem $=31.768319$ (Jeckyl Island, GA $=31.073492$ )
Negev, Israel = 30.714086 (Jacksonville, FL)

## Four Lunar-Solar Calendar Rules

Note that many calendar creators follow four calendar rules devised by Hillel II, a 4th century Jewish rabbi.

One of these rules does not permit their Messiah to arrive on the first day of the seventh month if it falls on Friday. This would allegedly interrupt the Preparation day for the Sabbath. Can't have that!

In contrast, NASA would still insist that the seventh new moon would still be on Friday based upon science.

Science then has no religious interventions.
Are new moons and full moons based upon religion or science? Who decides if a new, 5th rule should be created, one that avoids placing a new year 11 days before the equinox (in the years of $3,6,8$, 11 , and $14,17 \& 19$ of the 19 -year cycle) instead of following NASA?

Eclipses and New Moons on the Spring Equinox
TABLE 1 above. The top dates are when a lunar year begins with solar eclipses, on new moons, on March 19 or 20 (on the spring equinox). A $13^{\text {th }}$ moon starts the next year on April 7 or 8.

According to the Catholic Easter Cycle from 1996 to 2053, Easter is in the month before the Hebrew Passover and Hebrew Wave Sheaf Offering (in years 2005, 2008, 2024, 2027, 2043 and 2046 AD/CE).

TABLE 1 ABOVE. Dates are from NASA found at: http://astropixels.com/ephemeris/phasescat/phasescat.html

When there is an eclipse of the sun on a new moon, on the equinox (Mar 19 or 20), on the first day of spring, a $13^{\text {th }}$ moon needs to be added as in 71 AD . This will cause the next year to begin on April 7 or 8, 19 days after the equinox. Otherwise, the next lunar year will begin in the winter, 11 days before the equinox. The $13^{\text {th }}$ moon is 30 days. If it is added in the $19^{\text {th }}$ year, the $13^{\text {th }}$ moon will only have 29 days.

Note on Hanukkah, December 25, Kislev 25, -4 (5 BC) http://www.cgsf.org/dbeattie/calendar/?roman=-4

Note on Passover, April 12 to Wednesday, April 25, 31 AD https://www.timeanddate.com/calendar/?year=31\&country=1
Alternative: Passover, April 10 to Wednesday, April 25, 31 AD http://www.cgsf.org/dbeattie/calendar/?roman=31

Oops! I thought the Pharisee/Rabbi (Hebrew) calendar had it right... (;-\}

By the way, Adam was allegedly created on Friday, the first day of the seventh month, the sixth day of creation. Hillel, the rabbi, should have read this. Moreover, the "Hebrew calendar" began in the spring 3761 BC, not Creation.

Actually, The Hebrew calendar subtracts 165 years between Cyrus and Alexander (from 539 to 331 BC) and another 60 years between Abraham and his father. Moreover, it adds 30 years to the periods of the kings of Israel, because they overlapped 30 years. These were contrived to delay the true date of "Creation" to the year the calendar began in 3761 BC.

This was $76 \times 49$ years (or $19 \times 196$ ) before Herod captured Jerusalem in 37 BC. 76 jubilees are also 7 "Easter Cycles" (532 years x 7)

NASA shows there are often solar eclipses (on a new moon) on the first day of the Hebrew calendar on the very same day of the spring equinox, as in 71 AD . Would the "first crescent slither" be seen during an eclipse? Hmm! After this, when will the next lunar year begin... in the winter or in the spring? Even Pope Gregory hired an outsider to correct the Gregorian calendar. Where is NASA not correct? And some suppose the Higher Realm is just too far away to get involved now.

Based upon the First New Moon (near the Spring Equinox) and the following new year

## Answers to Calendar Basics HERE: <br> http://astropixels.com/ephemeris/phasescat/phasescat.html

| AD | New Year \& | 2 nd year | $3^{\text {rd }}$ | $4^{\text {th }}$ | $5^{\text {th }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Date of | 1st New | $1{ }_{\text {st }}$ New | Yr | Yr | Yr |
|  | Moon | Moon |  |  |  |
| Calendar |  |  |  |  |  |
| Correction |  |  |  |  |  |
| In 1582 |  |  |  |  |  |
| 1597 | $3 / 17+19$ | 4/05 | 3/26+19 | 4/13 | 4/03 |
| 1616 | $3 / 17+19$ | 4/05 | 3/26+19 | 4/14 | 4/02 |
| 1635 | $3 / 17+19$ | 4/05 | $3 / 26+19$ | 4/14 | 4/03 |
| 1654 | $3 / 18+19$ | 4/06 | $3 / 26+19$ | 4/13 | 4/02 |
| 1673 | $3 / 18+19$ | 4/06 | $3 / 26+19$ | 4/13 | 4/02 |
| 1692 | 3/17+19 | 4/05 | $3 / 25+19$ | 4/13 | 4/02 |
| 1711 | $3 / 19+19$ | 4/06 | 3/26+19 | 4/14 | 4/04 |
| 1730 | $3 / 18+19$ | 4/06 | 3/26+19 | 4/14 | 4/04 |
| 1749 | $3 / 18+19$ | 4/06 | $3 / 27+19$ | 4/14 | 4/03 |
| 1768 | $3 / 18+19$ | 4/06 | $3 / 27+19$ | 4/15 | 4/03 |
| 1787 | $3 / 19+19$ | 4/06 | $3 / 26+19$ | 4/14 | 4/03 |
| 1806 | $3 / 20+19$ | 4/08 | $3 / 27+19$ | 4/14 | 4/04 |
| 1825 | $3 / 19+19$ | 4/07 | $3 / 27+19$ | 4/14 | 4/03 |
| 1844 | $3 / 19+19$ | 4/06 | $3 / 27+19$ | 4/15 | 4/03 |
| 1863 | $3 / 19+19$ | 4/06 | $3 / 27+19$ | 4/15 | 4/04 |
| 1882 | $3 / 19+19$ | 4/07 | $3 / 27+19$ | 4/15 | 4/04 |
| 1901 | $3 / 20+19$ | 4/08 | 3/29+19 | 4/15 | 4/04 |
| 1920 | $3 / 20+19$ | 4/08 | $3 / 28+19$ | 4/16 | 4/04 |
| 1939 | $3 / 21+19$ | 4/07 | $3 / 27+19$ | 4/15 | 4/04 |
| 1958 | $3 / 20+19$ | 4/08 | $3 / 27+19$ | 4/15 | 4/04 |
| 1977 | $3 / 19+19$ | 4/07 | $3 / 28+19$ | 4/15 | 4/04 |
| 1996 eclipse | $3 / 19+19$ | 4/07 | $3 / 28+19$ | 4/16 | 4/04 |
| 2015 " | $3 / 20+19$ | 4/07 | $3 / 28+19$ | 4/16 | 4/05 |
| 2034 " | $3 / 20+19$ | 4/08 | $3 / 27+19$ | 4/15 | 4/04 |
| 2053 " | $3 / 20+19$ | 4/09 | $3 / 28+19$ | 4/14 | 4/04 |
| 2072 " | $3 / 19+19$ | 4/08 | $3 / 27+19$ | 4/15 | 4/03 |

Would anyone dare to guess when the $6^{\text {th }}, 7^{\text {th, }}, 8^{\text {th }} \& 9^{\text {th }}$ lunar years should be in TABLE 2?

Columns 2 and 4 add 19 days ( $30-11=19$ ), and each row is 19 years apart.

Eclipses on the spring equinox covered here
http://www.oom2.com/t26369-how-often-does-a-solar-eclipse-happen-on-the-march-equinox

TABLE 3. 19-yr Cycle (after an Equinox on 3/19-3/20)

| $\mathbf{1 9}$ <br> $\mathbf{y r s}$ |  | Before <br> Common <br> Era | March | April |
| ---: | ---: | :---: | :---: | :---: |
| 17 | $\mathbf{- 3 9}$ | 40 BCE | $3 / 05$ | $4 / 03$ |
| 18 | $\mathbf{- 3 8}$ | $\mathbf{3 9} \mathbf{~ B C E}$ | $3 / 24$ | $4 / 22$ |
| 19 | $\mathbf{- 3 7}$ | $\mathbf{3 8} \mathbf{~ B C E}$ | $3 / 14$ | $4 / 12$ |
| 1 | $\mathbf{- 3 6}$ | $\mathbf{3 7} \mathbf{~ B C E}$ | $3 / 02$ | $4 / 0$ |
| 2 | $\mathbf{- 3 5}$ | $\mathbf{3 6} \mathbf{~ B C E}$ | $3 / 21$ | $4 / 20$ |

Sabbatical Jubilee since creation


Notes on TABLE 3. (NASA dates found HERE)

New moons are listed which begin a new year in March or April (September is the $7^{\text {th }}$ month. October, November and December are the $8^{\text {th }}, 9^{\text {th }}$ and $10^{\text {th }}$ months).

The table is divided into 19-year cycles after a year begins on the spring equinox, not based upon the Hebrew calendar.

Since opinions differ, it becomes a personal choice to prefer that new years should only begin after the spring equinox, after $3 / 19$, $3 / 20$ or $3 / 21$.

Note that dates repeat every 19 years, but the Gregorian calendar needs one day added every 228 years ( $12 \times 19$ ) to stay very close to the 19-year cycle.

Table 1 illustrates the results in real time.

TABLE 4. Solar Eclipses on the Equinox

| Current | New | New | 19 | Current | New | New |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Era CE | Moon | Moon | Years | Era CE | Moon | Moon |
| Date | Date | Date |  | Date | Date | Date |


| Intercalary Yrs CE /AD |  |  |  |  | $\begin{aligned} & 10 \\ & 11 \end{aligned}$ | $\begin{aligned} & 31 \\ & 32 \end{aligned}$ | $\begin{aligned} & \hline 3 / 11 \\ & \hline 3 / 29 \end{aligned}$ | $\begin{aligned} & \hline 4 / 10 \\ & \hline 4 / 28 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
| 12 | 11 | 13 | 3/29 | 4/28 |  |  |  |  |
| 13 | 12 | 14 | 3/19 | 4/17 | 12- | 33 | 3/19 | 4/17 |
| 14 | 13 | 15 | 3/09 | 4/07 | 13 | 34 | 3/09 | 4/07 |
| 15 | 14 | 16 | 3/27 | 4/25 | 14 | 35 | 3/28 | 4/26 |
| 16 | 15 | 17 | 3/16 | 4/15 | 15 | 36 | 3/16 | 4/15 |
| 17 | 16 | 18 | 3/06 | 4/04 | 16 | 37 | 3/05 | 4/04 |
| 18 | 17 | 19 | 3/25 | 4/23 | 1,7 | 38 | 3/24 | 4/23 |
| 19 | 18 | $\underline{20}$ | 3/13 | 4/11 | 18 | 39 | 3/13 | 4/12 |
| 1 | 19 | 21 | 3/31 | 4/30 | '19 | 40 | 3/31 | 4/29 |
| 2 | 1 | 22 | 3/21 | 4/19 | 1 | 41 | 3/20 | 4/19 |
| 3 | 2 | 23 | 3/10 | 4/08 | 2 | 42 | 3/10 | 4/08 |
| 4 | 3 | 24 | 3/28 | 4/26 | 3 | 43 | 3/29 | 4/27 |
| 5 | 4 | $\underline{25}$ | 3/18 | 4/16 | 4 | 44 | 3/18 | 4/16 |
| 6 | 5 | 26 | 3/07 | 4/06 ! | 5 | 45 | 3/07 | 4/06 |
| 7 | 6 | 27 | 3/26 | 4/25 ! | 6 | 46 | 3/26 | 4/24 |
| 8 | 7 | $\underline{28}$ | 3/15 | 4/13, | 7 | 47 | 3/15 | 4/14 |
| 9 | 8 | 29 | 3/04 | 4/03 | 8 | 48 | 3/03 | 4/02 |
| 10 | 9 | 30 | 3/22 | 4/2'1 | 9 | 49 | 3/22 | 4/20 |
| 11 | 10 | $\underline{31}$ | 3/11 | 4/10 | 10 | 50 | 3/11 | 4/10 |
| 12 | 11 | 32 | 3/29 | 4/1/28 | 11 | 51 | 3/30 | 4/29 |

Note: The $10^{\text {th }}$ year of 19 yrs. began in the fall of 30 AD . Source HERE

Note: Solar eclipses on the equinox are in dark blue. Light blue illustrates the most likely first day of each lunar year.
The Gregorian calendar lacks one day every 228 years ( $19 \times 12$ ).
Also note how dates repeat every 19 years.

In 359 CE, Hillel II created the rabbinical Hebrew calendar (based upon new moons) by associating new moons with solar years (Julian calendar based upon the spring equinox).
$4 / 10+14=4 / 24$
$4 / 25$ (Passover after sundown)


| 12 | 52 | 3/19 | 4/17 |
| :---: | :---: | :---: | :---: |
| 13 | 53 | 3/09 | 4/07 |
| 14 | 54 | 3/27 | 4/26 |
| 15 | 55 | 3/17 | 4/15 |
| 16 | 56 | 3/05 | 4/03 |
| 17 | 57 | 3/23 | 4/22 |
| 18 | 58 | 3/13 | 4/11 |
| 19 | 59 | 3/02 | 4/01 |
| 1 | 60 | 3/20 | 4/19 |
| 2 | 61 | 3/10 | 4/08 |
| 3 | 62 | 3/29 | 4/27 |
| 4 | 63 | 3/18 | 4/17 |
| 5 | 64 | 3/06 | 4/05 |
| 6 | 65 | 3/25 | 4/24 |
| 7 | 66 | 3/14 | 4/13 |
| 8 | 67 | 3/04 | 4/02 |
| 9 | 68 | 3/22 | 4/20 |
| 10 | 69 | 3/11 | 4/10 |
| 11 | 70 | 3/01 | 3/30 |
| 12 | 71 | 3/20 | 4/18 |
| 13 | 72 | 3/08 | 4/07 |
| 14 | 73 | 3/27 | 4/26 |
| 15 | 74 | 3/16 | 4/15 |
| 16 | 75 | 3/05 | 4/04 |
| 17 | 76 | 3/23 | 4/21 |
| 18 | 77 | 3/13 | 4/11 |
| 19 | 78 | 3/02 | 4/01 |
| 1 | 79 | 3/21 | 4/20 |
| 2 | 80 | 3/10 | 4/08 |
| 3 | 81 | 3/29 | 4/27 |
| 4 | 82 | 3/18 | 4/16 |
| 5 | 83 | 3/07 | 4/05 |
| 6 | 84 | 3/25 | 4/23 |
| 7 | 85 | 3/14 | 4/12 |
| 8 | 86 | 3/04 | 4/02 |
| 9 | 87 | 3/23 | 4/21 |
| 10 | 88 | 3/11 | 4/10 |
| 11 | 11 | 3/30 | 4/29 |
| 12 | 90 | 3/19-20 | 4/18 |

$-3760$
3724
BCE 3761
$\underline{3724}$
BCE 37
$\underline{36}$
-00
BCE 1
$\underline{02}$
AD/CE 02
AD/CE 02
19
year 1921
10
year 1031
10
31

79 CE, year 01 of 19

