

הַיּוֹם בַּאֲשֶׁר קוּמַם יֵשׁוּעַ  
הַמָּשִׁיחַ מִן־הַמָּתִים



**The Resurrection Day  
Of Messiah Yeshua**

*When It Happened*

According To The Original  
Texts

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Preview is on next two Pages  
(laid out in book order)

$$T_b = (5 T_s + 4 T_m) / 9 = (5 (15^h 47^m) + 4 (17^h 19^m)) / 9$$

$$T_b = 16^h 30^m 11^s; \text{ best time to observe, reset software:}$$

$$AZ_s = \text{Azimuth of the sun} = 276.50^\circ$$

$$AZ_m = \text{Azimuth of the moon} = 268.48^\circ$$

$$AL_s = \text{Altitude of the sun} = -9.72^\circ$$

$$AL_m = \text{Altitude of the moon} = 9.89^\circ$$

$$D = \text{Diameter of Moon} = 30.8'$$

$$\text{Semi-diameter} = SD = \frac{1}{2}D$$

$$\text{Arc of Vision} = \alpha = |AL_m - AL_s| = 19.61$$

$$\text{Azimuth Difference} = \delta = |AZ_s - AZ_m| = 8.02$$

$\alpha$  = arc of vision; this is the difference between the altitude of the sun and the altitude of the moon at the best time around sunset.

$\delta$  = difference in the azimuth of the sun and moon

Solve  $\lambda$  for the Arc of Light in degrees:

$$\lambda = \cos^{-1}(\cos \alpha \cos \delta) = 21.17$$

$$\omega = SD (1 - \cos \lambda) = \text{Width of Crescent in degrees} = 1.039.$$

$$q = (\alpha - (11.8371 - 6.3226 \omega + 0.7319 \omega^2 - 0.1018 \omega^3)) / 10 = 1.366$$

$$q = 1.366$$

<u>Criteria Code &amp; Range</u>	<u>Remarks</u>
(A) $q > +0.216$	Easily Visible ( $\lambda \geq 12^\circ$ )
(B) $+0.216 \geq q > -0.014$	Visible under perfect conditions
(C) $-0.014 \geq q > -0.160$	May need optical aid to find moon
(D) $-0.160 \geq q > -0.232$	Will need optical aid to find moon
(E) $-0.232 \geq q > -0.293$	Not visible with a telescope ( $\lambda \leq 8.5^\circ$ )
(F) $-0.293 \geq q$	Not visible, below Danjon limit ( $\lambda \leq 8^\circ$ )

Since  $q > +0.216$ , criteria "A" applies. The moon will be easily seen.

And on the preceding day April 4 at Mt. Nebo.

Longitude:  $35^\circ 12' 16.70''$  E

Latitude:  $31^\circ 46' 3.63''$  N

$$T_s = 15^h 47^m; T_m = 16^h 23^m$$

$$T_b = 16^h 3^m 0^s$$

$$AZ_s = +272^\circ 27' 50''$$

$$AZ_m = 266^\circ 11' 32''$$

$$AL_s = -04^\circ 03' 27''$$

$$AL_m = 3^\circ 38' 36''$$

$$D = 30.4'$$

$$\alpha = |AL_m - AL_s| = 7.7$$

$$\delta = |AZ_s - AZ_m| = 6.27$$

$$\lambda = \cos^{-1}(\cos \alpha \cos \delta) = 9.92$$

$$\omega = SD (1 - \cos \lambda) = 0.227$$

$$q = (\alpha - (11.8371 - 6.3226\omega + 0.7319\omega^2 - 0.1018\omega^3))/10 = -0.274$$

(Note: Calendar of Israel returns  $q = -0.276$  E.)

$q = -0.274$ , hence criteria “E” applies: **Not visible with a telescope**. Therefore, the calendar above is correct, the new moon for Nisan 1 was seen in the evening of April 5, and the new moon day was Monday, April 6.

The key dates that I have been using in this section are fully explained in the Scroll of Biblical Chronology. In regard to ancient calculation of the new moon, two more may be added. The date of the flood is 2483 BC, and the date of Creation in 4140 BC. The Calendar of Israel places the first day of the first month on the fourth day of the week in 4140 B.C. and also places the 10th and 17th of the 2nd month in 2483 BC on the Sabbath. The 17th day of the 2nd month is day 50 of the year, and the 17th day of the 7th month is day 199 of the year. Inclusively counted, they are 150 days. In the year of the flood, the 11, 18, and 25th days of the 11th month are on Sunday. This is when Noah sent the birds out, and then waited seven days before trying again. Neither Dodwell’s research on the change in the obliquity of the ecliptic from ancient value of  $26.5^\circ$  nor a difference in the axial precession rate would upset these calculations.

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