

The Life of Jesus From Astronomy

Douglas Chinn

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One of the most amazing things from the past is that the best attested events of ancient history are those of the life of Jesus, especially the events of Easter week. Not only are there thousands of New Testament manuscripts, but there are also Roman and Jewish historians who corroborate the events described in the New Testament. (see for example *The Biblical Narratives of Easter Week: Are They Trustworthy?*, Robert C Newman, ibri.org, 1980) <https://www.newmanlib.ibri.org/RRs/RR001/01easter.htm>

But did you know that by using astronomy, we can actually pin down almost the exact dates for Jesus' birth, ministry, death, resurrection, and ascension? Using the computer projections into the past of planetary orbits and lunar eclipses, we can know when certain events of Jesus' life occurred. Here is my astronomical biography of Jesus.

1. Aug 12, 3 BC – First astronomical sign to the wise men
2. Aug 31, 3 BC - Annunciation to Mary by the angel Gabriel
3. Sep 11, 3 BC - Conception of Jesus
4. Summer 2 BC - Census of Quirinius
5. Jun 17, 2 BC - Birth of Jesus in Bethlehem
6. Dec 25, 2 BC - Visit of the wise men
7. Jan 10, 1 BC - Flight to Egypt
8. Jun 17, 29 AD - Beginning of Jesus' public ministry
9. Apr 3, 33 AD - Crucifixion
10. Apr 5, 33 AD - Resurrection
11. Apr 12, 33 AD - Appearance to the 11 remaining apostles, including Thomas
12. May 16, 33 AD - Ascension into Heaven

The above dates are based on astronomical events described in:

"The Star of Bethlehem, What Was It?", Robert C Newman, ibri.org, 2007, <https://www.newmanlib.ibri.org/NewmanPpt/StarBeth.htm>

"The Star of Bethlehem", Rick Larson, DVD, 2007, <https://www.youtube.com/watch?v=ZbKqD01xhV4>

"Five Millennium Catalog of Lunar Eclipses", [eclipse.gsfc.nasa.gov](https://eclipse.gsfc.nasa.gov/5MCLE/5MCLE-Figs-05.pdf), 2009. <https://eclipse.gsfc.nasa.gov/5MCLE/5MCLE-Figs-05.pdf>

What follows is how I use these three sources and passages from the New Testament to derive some of the important dates in the life of Jesus.

1. Aug 12, 3 BC – First astronomical sign to the wise men

The wise men were probably astronomers/astrologers living in Babylon or in Persia. Perhaps they were Jewish exiles left over from the Babylonian captivity of the 500's BC. In any case, there was interest among such people to look for signs in the stars which would portend important future events.

On Aug 12, 3 BC there was a conjunction of the planets Jupiter and Venus in the constellation of Leo (the lion). (See Newman's slides #13 and 15) If Leo represents the tribe of Judah, this would have been a sign to any astrologers who knew something of Jewish traditions that something would be about to happen affecting the tribe of Judah. Therefore, after this date, the astrologers would be carefully watching the night sky for future signs.

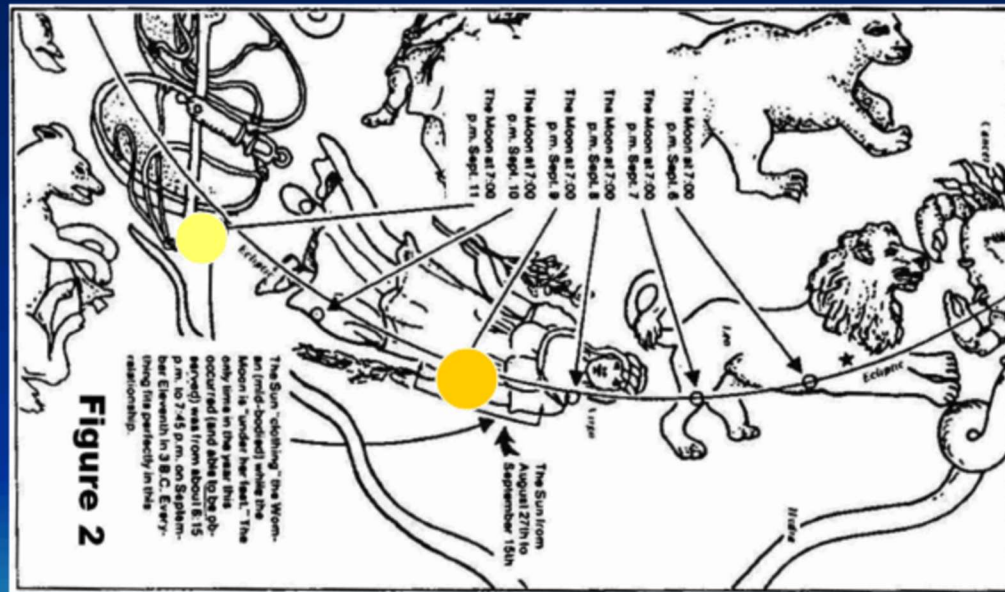
2. Aug 31, 3 BC – Annunciation to Mary by the angel Gabriel

In Luke 1:26-33, the angel Gabriel appears to Mary to tell her she would be having a son who would inherit the throne of David. Mary is puzzled saying, "How shall this be, seeing that I know not a man?" (vs 34) Now on Aug 31, 3 BC, 12 days before the supposed conception date of Jesus, there was a close planetary conjunction between the planets Mercury and Venus. (See Newman's slide #17) Whether astrologers would take this as a special sign or not is debatable. Admittedly, this interpretation is based only on looking at events after the fact. But another possible fit is that women have an approximate 28 day menstrual cycle. Fertilization of an egg is only possible in the middle of the month. If Mary was having her period when Gabriel arrived, she would know that she was not pregnant, not only by her not knowing a man, but also by the time of the month. Mary was not yet pregnant when talking to Gabriel as he says to her that the Holy Spirit will come upon her in the future to accomplish this miracle. Thus, having the conception of Jesus about 2 weeks later fits in with this chronology.

3. Sep 11, 3 BC – Conception of Jesus

On Sep 11, 3 BC, another peculiar astronomical event happened. The sun was in the constellation of Virgo (the virgin) and when the moon rose, it rose at the feet of Virgo. This sounds like what John is seeing in Revelation 12:1, "And there appeared a great wonder in heaven – a woman clothed with the sun, and the moon under her feet ...". (See Newman's slides #19 and 22) Now Revelation goes on to say that the woman is pregnant and about to give birth. Some take this imagery to be the birth of Jesus. But it hardly would be a sign to astrologers that someone special had been born, especially compared to the later conjunction of Jupiter and Venus. The book of Revelation has lots of figurative language. So it would not be too much of a stretch that the whole pregnancy process, from conception to birth, is represented in one image.

Martin's Conjunction 3



Newman's slide #22

4. The Census of Quirinius

In Luke 2:1-5, Luke gives the reason why Joseph returned to visit Bethlehem at an extremely inconvenient time as Mary was very pregnant. Caesar Augustus decided to have a census of the Roman empire. The question arises as to when this census took place, or at least when the census took place in Bethlehem. While there are no astronomical events to correlate with the census, it must have been taking place in the summer 2 BC to fit into my astronomical chronology.

Luke says that a census took place when "Quirinius was **first** governing Syria". Now Josephus says that Quirinius made a census in Judea in 6 AD, about 7 years later than in my chronology. However, this does not preclude that Quirinius was also governing Syria/Judea in 2 BC. That 2 BC would have been when he "first" governed Syria and then later he again governed Syria in 6 AD. Josephus' statement also does not preclude that the census took place in different parts of the empire and different parts of Syria/Judea at different times. There is simply not enough historical material to say that there was no census in 2 BC. However, there is enough evidence to say that a census would cause Joseph and Mary to travel to Bethlehem.

For a more in-depth study of the census chronology, see “The Census of Quirinius, The Historicity of Luke 2:1-5”, Robert L Marchant, ibri.org, 2007, <https://ibri.org/RRs/RR004/04census.htm>

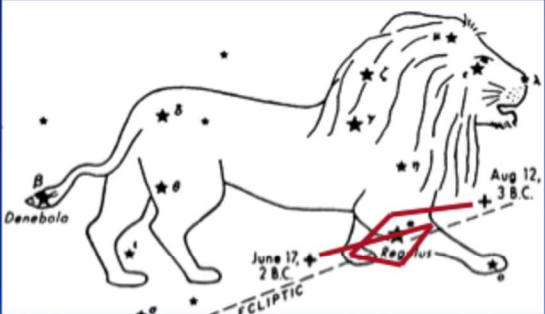
5. Jun 17, 2 BC – Birth of Jesus in Bethlehem

And a few months before June 17, 2 BC, Jupiter circled the star Regulus, the “king” star, when undergoing retrograde motion before its conjunction with Venus. This series of extremely unusual events are fitting “signs” to announce the birth of the most important person in human history. (See Newman’s slides #25, 26, 38, and 39)

- Newman@Ibri.org -

Martin's Conjunctions 4-6

- Martin sees these three conjunctions as Jupiter (the king planet), circling Regulus (the king star), placing a crown on him.



Abstracts of Powerpoint Talks

Newman’s slide #25



Examples of retrograde motion.

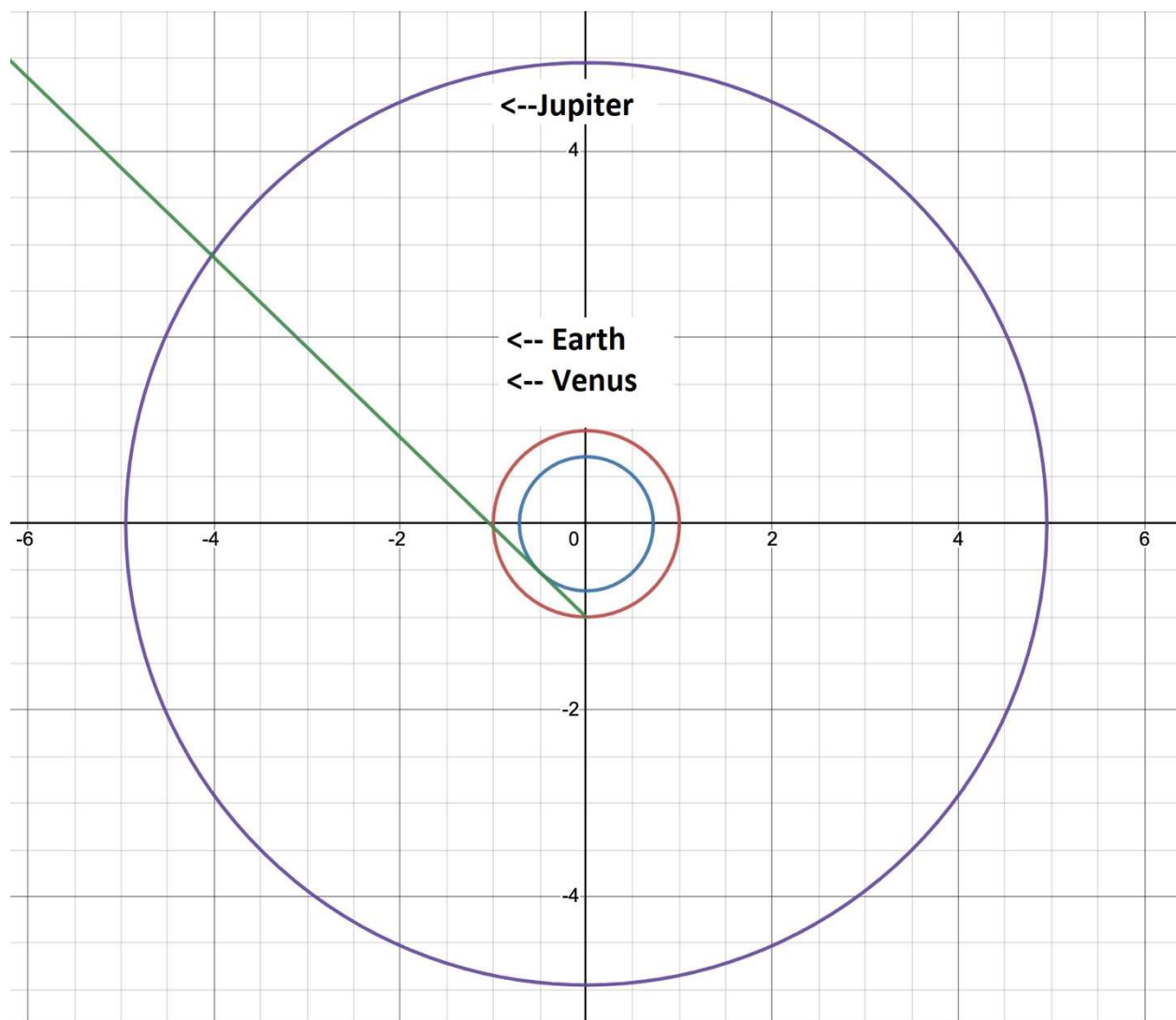
The center piece of this astronomical biography is the interpretation of the star of Bethlehem. On the evening of June 17, 2 BC there was a very close conjunction of the planets Jupiter and Venus. Estimates of such a close conjunction range between once every 1,000 to 34,000 years. Thus, for Middle Eastern astrologers, this conjunction would be the brightest “star” they had ever seen as the light from Jupiter and Venus would add together to increase the apparent brightness. Furthermore, this conjunction also occurred in the constellation of Leo like the previous conjunction.



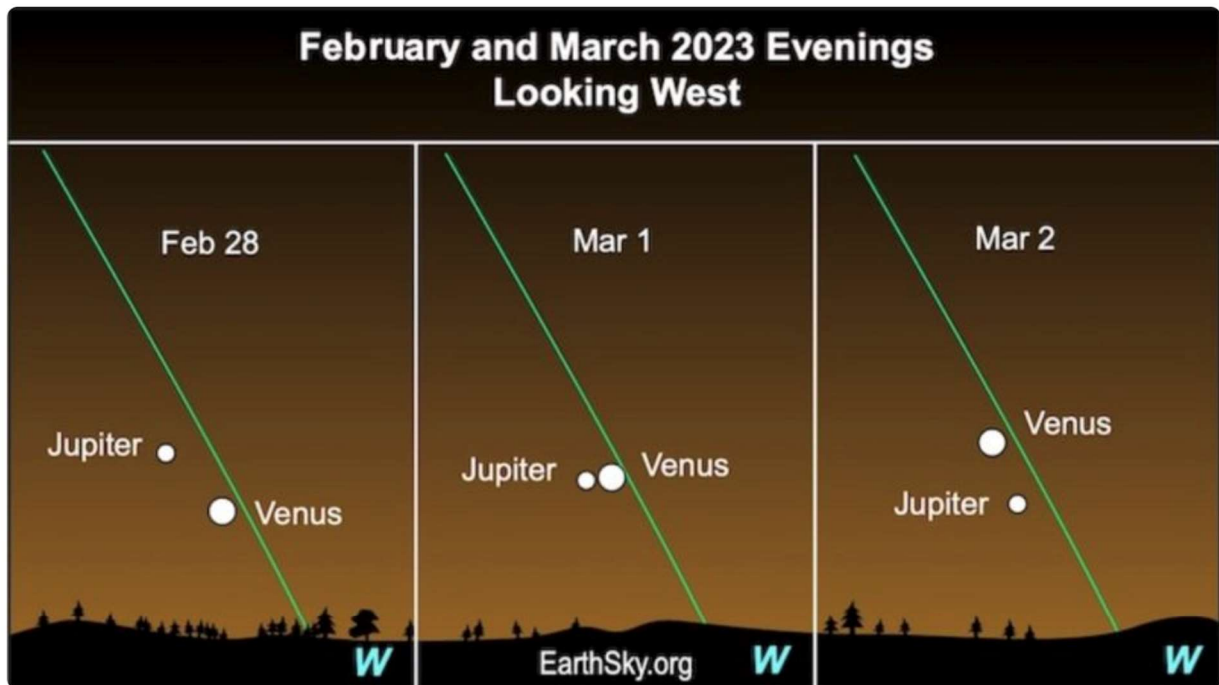
Screen shot from Starry Night 6 of the very close conjunction of Jupiter and Venus on the night of June 17, 2 BC as seen from Baghdad, Iraq.

Luke 2:8-20 tells us that on the night Jesus was born, there were shepherds in the field watching their sheep. An angel appeared and told them that the Christ has just been born and that they could find him in a stable wrapped in swaddling clothes. After a concert from a choir of angels, the shepherds went into Bethlehem and found Jesus lying in a manger as they were told.

Now the planet Venus is known as either the “morning” or “evening” star. Its orbit is such that one can see it only in the early morning before sunrise or in the early evening after sunset. On the night of June 17, 2 BC, the orbital position of Venus meant it was the “evening” star. If Jesus was born at the time of the closest approach of the two planets, this would mean he was born between about 7 and 10 pm local time.



Relative positions of the Earth (red), Venus (blue), and Jupiter (purple) on Jun 17, 2 BC. The green line is the line of sight of an observer on the earth.



Throughout February 2023, our sky's 2 brightest planets – Venus and Jupiter – have been edging closer together. The Venus and Jupiter conjunction will happen on March 1-2, 2023. *Wow-zer!* As seen from the Americas, their closest pairing is shortly after sunset on March 1. After their conjunction, Venus will continue its reign as our bright evening “star” until August 2023. Jupiter will disappear into the sunset glare sometime in March. Don't miss the conjunction of bright planets Venus and Jupiter! Chart via John Jardine Goss/ [EarthSky](https://earthsky.org/tonight/bright-planets-west-after-sunset-venus-and-jupiter-conjunction-feb-mar-2023/). <https://earthsky.org/tonight/bright-planets-west-after-sunset-venus-and-jupiter-conjunction-feb-mar-2023/>

Venus-Jupiter conjunction on Mar 1, 2023, similar to Jun 17, 2 BC.



Conjunction of Venus (r) and Jupiter (l) at about 7 pm Mar 1, 2023 from Greenbelt, MD

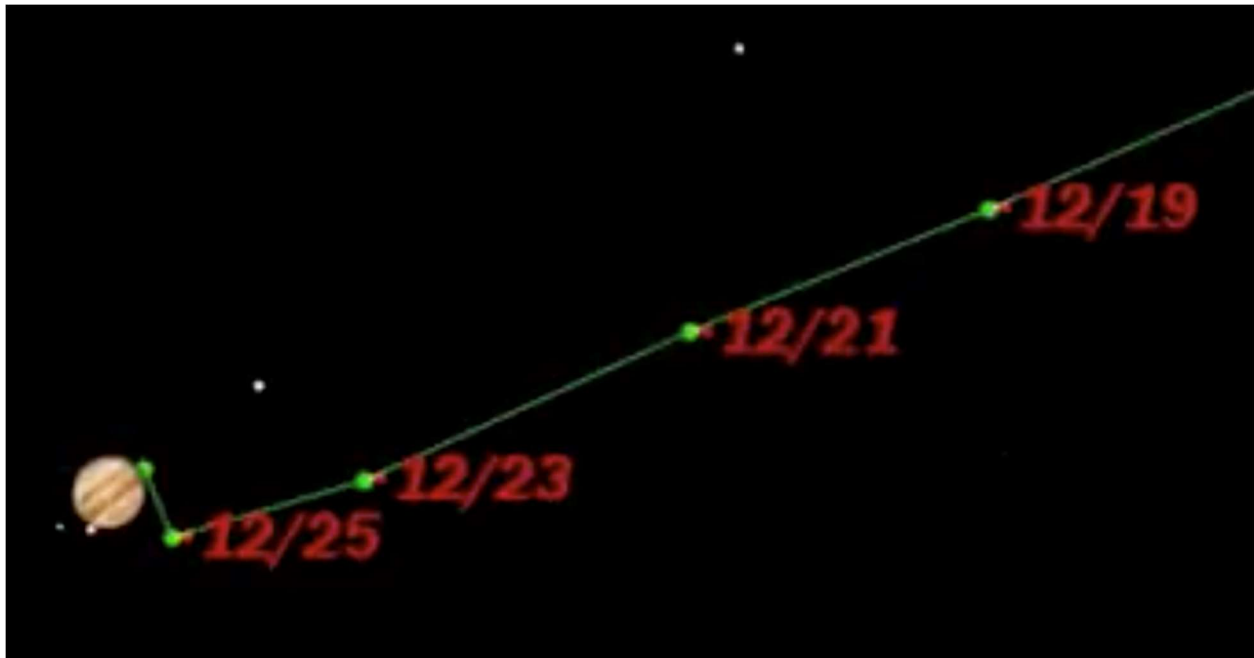
The traditional day of Jesus' birth is Dec 25. Many people have pointed out that this date seems out of place as it requires Joseph to make a trip to Bethlehem in the winter to comply with Augustus' decree (Luke 2:4) and has the shepherds watching over their sheep outdoors in the cold (Luke 2:8). However, having Jesus born during the summer removes the unnaturalness of the timing of both Joseph's trip and the shepherds' night behavior.

6. Dec 25, 2 BC – The visit of the wise men

After seeing this bright "star", the wise men, who probably lived somewhere in or near Mesopotamia, decided to make plans to travel to Jerusalem to see the newborn king. Planning and making a trip to Jerusalem in 6 months time seems like a reasonable time frame for travel by camel.

Matt 2:1-2 says, "Now when Jesus was born in Bethlehem of Judaea in the days of Herod, the king, behold, there came wise men from the east to Jerusalem, saying, Where is he that is born King of the Jews? For we have seen his star in the east and are come to worship him."

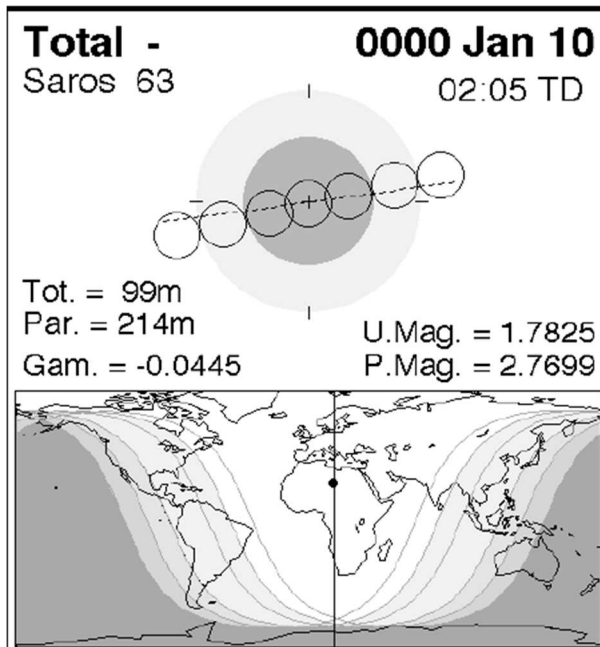
After the wise men arrive in Jerusalem, Herod the Great tells them to search for their newborn king in Bethlehem. Matthew says that "the star, which they saw in the east, went before them, till it came and stood over where the young child lay." (Matt 2:9) Now I have to do some speculation here. If we interpret the star to be the planet Jupiter, Jupiter will wander in the night sky, at times undergoing retrograde motion and even "stopping" at times relative to the fixed stars. If Jupiter were at a point of "stopping" in its motion, this would be on Dec 25, 2 BC. (See Larson's DVD on Youtube, about minute 47) But there would be no way for the wise men to know that Jupiter "stood over where the young child lay" from natural light alone. So Newman suggests that there must also have been some supernatural component to what the wise men saw, to act as special light, to lead them to the house where Jesus was now living. In any case, Dec 25, 2 BC, while not the birthday of Jesus, should be celebrated as the day that the wise men gave their presents to Jesus.



Screen shot from Larson's DVD about minute 47. Note: The bright circular object at the left end of the green trail represents the planet Jupiter in the night sky.

7. Jan 10, 1 BC - Flight to Egypt

Matthew's gospel says that God told the wise men in a dream to not report back to Herod that they had found the newborn king. So they returned home without telling him. At the same time, an angel told Joseph to flee to Egypt with Jesus and Mary as Herod was about to try to kill Jesus. The Jewish historian Josephus wrote in his book Antiquities (17.6.4) that Herod the Great died after an eclipse of the moon but before the next Passover (which occurs in March or April). Looking in NASA's catalog of lunar eclipses, we find that there was a lunar eclipse that could be seen in Israel on Jan 10, 1 BC. [Note: Remember, in the traditional dating system, there is no year 0 BC or 0 AD. The years go from 1 BC to 1 AD. To allow for numerical calculations, all BC dates are negative years + 1 in the NASA catalog. So the year 1 BC = $-1 + 1 =$ year 0 in the NASA catalog.] Thus, Herod's order to kill all the baby boys in Bethlehem 2 years old and younger would have occurred sometime during the last part of December 2 BC and the first part of January 1 BC, when Herod realized the wise men would not be returning to him.



Eclipse from NASA catalog for Jan 10, 1 BC. The dot is the location of the moon over the earth at the time of the maximum occultation (not the grey area).

[Note: Most historians have placed the date of Herod's death in 4 BC because there was also a lunar eclipse visible in Judaea in that year. Thus, it has been common to claim that Jesus was born in 6-4 BC. However, if the lunar eclipse of Josephus is the one in 1 BC, then Jesus' life chronology aligns perfectly with astronomical patterns while there are no astronomical correlations with the 4 BC lunar eclipse.]

8. Jun 17, 29 AD - Beginning of Jesus public ministry

The gospel of Luke tells us that Jesus began his public ministry when he was "about" 30 years of age (Lk 3:23). Just doing a straight forward math calculation using Jun 17, 2 BC as Jesus' birthday, we obtain

$$-2 \text{ BC} + 1 \text{ (because there is no year 0)} + 30 \text{ years} = 29 \text{ AD}$$

Therefore, I can approximate that Jesus began his public ministry around Jun 17, 29 AD. Since Luke says "about" 30 years, the actual beginning could be slightly earlier or later than this computed date.

Furthermore, Luke 3:1 says that the ministry of John the Baptist began sometime in the 15th year of Tiberius Caesar. Augustus Caesar died on Aug 19, 14 AD. So the 15th year of Tiberias would be between Aug 20, 28 AD to Aug 19, 29 AD. Since John was the forerunner of Jesus, if

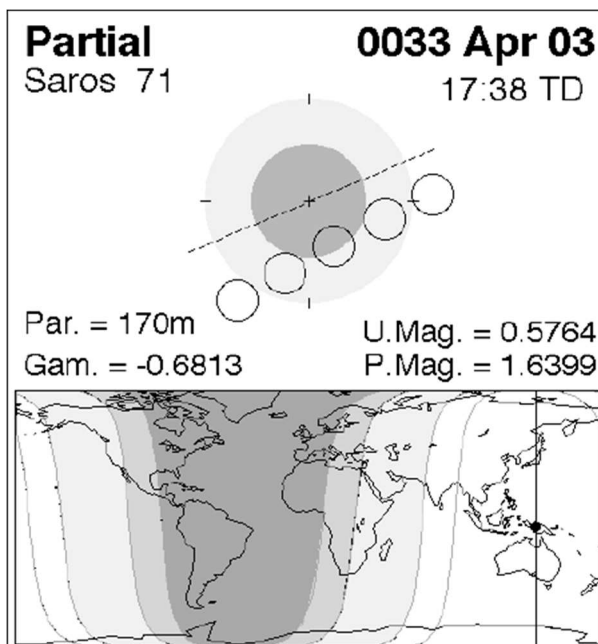
John began preaching in the early part or middle part of Tiberias' 15th year, then Luke's date of John the Baptist fits in well with my astronomical chronology of the beginning of Jesus' public ministry.

9. Apr 3, 33 AD – Crucifixion

This is not a technical paper with every detail annotated. So I am just going to quote a number that the length of Jesus' public ministry was "about" 3 ½ years. Now if you give me some leeway with the "about" 30 years from the previous section, it would be "about" 3 ¾ years from Jun 17, 29 AD to the time of Passover in March or April 33 AD.

In the book of Acts, Peter on the day of Pentecost gave a speech to the Jews in Jerusalem. In it he made the statement that one of the signs God gives to show something special is that the "moon will turn into blood" (Acts 2:20) and that at least some of these signs happened when Jesus died, as they all knew from the recent events (Acts 2:22). So-called "blood moons" occur when there is a lunar eclipse. The occulting of the sun's direct light by the earth, and the bending and scattering of the indirect light by the earth's atmosphere will often produce a reddish color on the moon, making it look like it has turned to "blood".

We know that Jesus died on Passover. Passover occurs on the first full moon after the spring equinox. The date of the spring equinox is around March 20 of every year. Looking through the NASA lunar eclipse catalog for March to April in the years around 33 AD yields only one candidate date. On Apr 3, 33 AD there was a partial eclipse of the moon visible from Jerusalem which could have produced the blood moon referenced by Peter. Therefore, we can pin point the date that Jesus died on the cross.



Eclipse from NASA catalog for Apr 3, 33 AD.

Furthermore, using a time and date calculator program, Apr 3, 33 AD (04-03-0033) is also a Friday, which agrees with Bible saying that Jesus died on Good Friday!

<https://www.timeanddate.com/date/weekday.html>

Weekday Calculator: What Day Is It?

What day of the week was I born? Enter any date to find out the weekday and other fun facts.

Count Days Add Days Workdays Add Workdays **Weekday** Week I

| | | | | |
|---------------------------------|---------------------------------|-----------------------------------|---------------------------------------|----------------------------------|
| Month: | Day: | Year: | | |
| <input type="text" value="04"/> | <input type="text" value="03"/> | <input type="text" value="0033"/> | <input type="button" value="Show ▶"/> | April 3, 0033 is a Friday |

Based on Calendar for United States. Date is based on the old [Julian Calendar](#) calendar which was in use before.

Additional facts

Note: The Julian calendar was in use until Oct 4, 1582.

10. Apr 5, 33 AD – Resurrection

Using the date of Apr 3, 33 AD as the date of the crucifixion, we can easily calculate the day of Easter Sunday. Jesus rose from the dead on Sunday Apr 5, 33 AD. Jesus appeared to Mary Magdalene and other women, the two disciples on the road to Emmaus, and later the apostles, minus Judas of course, but also minus Thomas on the same day. (John 20:11-23).

11. Apr 12, 33 AD - Appearance to the 11 remaining apostles, including Thomas

“Eight” days after the resurrection (seven days in our counting system), Jesus appeared to the 11 remaining apostles, this time including Thomas. (John 20:26)

12. May 16, 33 AD – Ascension into Heaven

The final event in Jesus’ earthly life was His ascension into Heaven. Acts 1:3 says that this took place 40 days after the resurrection. This would bring us to May 17, 33 AD. But the counting of the 40 days in the Biblical text may only be 39 in our counting system. So Jesus probably ascended into Heaven on May 16, 33 AD instead.

Conclusion

Deep down inside, everyone is “superstitious” – meaning everyone interprets low probability events as being directed by an outside force. Even mathematicians, like myself, who know that

many things happen “just by chance”, do not “really” believe in this explanation when the odds get “too” low. I can calculate the chances of winning the lottery jackpot. And although the odds are really, really small, and I know that someone is going to eventually win, I would still think that God wanted me to win if I ever won. So also with the above coincidences between astronomy and the life of Jesus. You just have to say to yourself that Jesus must be a very special person to have all of those astronomical events correlate with important events in His life. Couple this with our calendar years being based on His birth, and that Christmas is the most important economic event of every year, what more of a sign does one need to believe that Jesus is the Son of God who came to save people from their sins if they will only believe in Him?

Douglas Chinn is one of the original founders of IBRI. He received his PhD in seismology from Cornell University in 1982. His previous theological publications are “Demystifying the Controversy over the Textus Receptus and the King James Version of the Bible” (written with Robert C Newman, IBRI Research Report #3, 1980), and “A Post-Trib Alternative to the Pre-Trib Rapture” (written with Virginia F Chinn, IBRI book, 1991).