

Prophecy Lesson 6 - Two Head's Up Conjunctions and Jupiter's Key role in the Nativity Story (December 18, 2020)

This lesson should be encouraging because its purpose is to get you back into looking at the stars with the eyes of a wise man. These next three nights observing Jupiter and Saturn in preparation for the December 21, 2020 conjunction are critical if you are to understand what the formation of a single star from two celestial bodies is about. For those who might still harbor doubts about how two commonly observed planets could possibly form the most important of all heavenly signs to mark the birth of Jesus Christ, it was necessary to share the 200 years of Venus Jupiter conjunction numbers in the previous lesson to help you understand the importance and significance of the heavenly signs in the Nativity story. The takeaways from the previous lesson should be these: Of the thousands of stars formed between planets and stars and planets and planets throughout history, nothing like the back to back appearances of the 'heads up star' (Aug 3 BC) and the Christmas Star (Jun 2 BC) has ever happened or ever will again. They were truly miraculous one time appearances. Never in the history of Venus Jupiter conjunctions have three of four conjunctions in one Quartet each formed a single star. Never in Venus Jupiter conjunction history have two back to back conjunction appearances each formed a single star – and what is even more incredible, both conjunctions appeared as a single star over the same part of the Earth - Israel! And, never in history has an extraordinary star with the parameters of the 17 June 2 BC Venus Jupiter conjunction appeared at exactly the right time, in exactly the right place to accurately and completely fulfill Scripture and God's promises as did the Christmas Star. Each conjunction was a repeatable event, yet each only appeared once, never to be repeated. For these reasons I firmly believe that God has given us this pending 21 December 2020 Jupiter Saturn conjunction to observe and learn how this still impressive, yet 'slow motion' and less brilliant replica of the Christmas Star actually came about.

Before we move forward to Jupiter's major role in the Christmas Star story, we need to understand why Jupiter's role was even necessary. And to do that, we need to understand more about the wise men. The important questions to consider are: who were these wise men and where did they come from? In Rick Larson's Bethlehem Star DVD, we are told they came from Babylon and that they came only after the star appeared. Based on Scripture and Bishop James Ussher's **Annals of the World**, my conclusion, in the Christmas Star DVD, is that the wise men came from the ancient Persian capital of Sushan (modern day Susa, Iran). Here's why: After Daniel interpreted Nebuchadnezzar's dream (Dan 2), the king placed Daniel in charge over the whole province and all the wise men of Babylon (Dan 2:48). From Scripture this appears to have been a lifetime appointment (Dan 1:21). And, before that, when questioned about all matter of wisdom and understanding, the king found Daniel and his Jewish friends to be ten times better than all the magicians and enchanters in the whole kingdom (Dan 1: 17-20). These passages make it clear that Daniel was not only the head of the wise men for his entire life, but that he likely enrolled his wise Jewish friends into the wise men ranks throughout his lifetime as well. This would explain why wise men from the east would be so interested in the coming Messiah and the Christmas star at the time of Christ's birth. Ussher's Annals indicate that shortly after Daniel's experience in the lion's den (Dan 6:28), Cyrus took Daniel (and I believe a cadre of Jewish wise men with him) to the Persian capital of Sushan where Daniel would spend the rest of his life. Sushan is where Daniel, Esther and Mordecai's tomb's are located. Thus, a cadre of largely Jewish wise men would have continued in the Persian Empire (at least to the time of Christ's birth) and long after Babylon had disappeared from the world stage.

Ussher indicates that Selucid, the general who took over the Babylonian part of the empire after Alexander's death, used material from Babylon to build the city of Baghdad, sixty miles north on the

Tigris river, which ultimately became the major city along the trade routes that connected the east with the west. The history revealed by Ussher points to Babylon being nothing more than a semi-abandoned outpost by the time of Christ's birth. This was also how the prophets Isaiah and Jeremiah (Isaiah 13, Jeremiah 50) describe the condition of Babylon after it had served God's purposes. Thus, it is highly doubtful that the wise men came from Babylon. Why is all this important with respect to the wise men and the August 3 BC conjunction or 'heads up' star? The reason this is important is because the photo below shows the 12 August 3 BC Venus Jupiter conjunction 'heads up' star still forming over Israel. But the wise men were in Sushan, Persia located nearly 750 miles and one or two time zones to the east of Jerusalem. So, it would have been one to two hours later in Sushan with Venus high in the SSE sky in daylight when the conjunction was forming over Israel.

Venus –Jupiter conjunction: 08-12-03 BC 05:30 AM 0.08 degree separation, Elongation - 19.3 degrees
Jerusalem, Israel 50x20 FOV Brightness magnitude -3.92
The star the wise men saw in the East, 10 months before Jesus' birth (Matthew 2:2)



The 12 Aug 3 BC photo below shows what the wise men likely observed in the eastern sky as the sun was rising in Sushan. In the image, the planets are located about 17 degrees ahead of the sun just before sunrise and Venus was still closing on Jupiter while the planets were still 9 arc seconds or 0.15 degrees apart.



Venus Jupiter “heads up” Conjunction, 12 August 3 BC, 5:00 AM Susa, Iran 9 arc minutes (.15 degrees angular separation) Magnitude of brightness not reflected in computer generated images

Was this snapshot of the ‘heads up’ star at sunrise enough to convince the wise men that the 3 BC conjunction might be the Christmas Star? Since they had days to observe the star develop, not moments, I believe it was enough for three reasons.

First, computer images do not necessarily or accurately represent the magnitude of brightness of heavenly objects, especially when the planets are within about 20 degrees of the Sun. A computer generated star is depicted by a white disc, sized to represent its brilliance. In today’s atmosphere and sky, Jupiter, as depicted in the photo, would not be visible at all with the naked eye or a camera because it would have disappeared 30-45 minutes before sunrise in the early morning light. But, looking closely at the photo, the discs representing the planets look nearly identical, despite the great difference in magnitude of brightness between the planets. Moreover, if the appearance of the sky condition for the wise men looked more like the photo of the sky over Masada from lesson 1, then Jupiter might very well have been visible, but the brilliance of Venus (being 6.5 times brighter) in that same sky would have likely enveloped Jupiter in its brightness so that it would at least appear as an elongated star.

Secondly, unlike modern day astronomers who use powerful telescopes and cameras to observe distant galaxies, supernovas and black holes that dominate the astronomical landscape, the wise men observed the heavens with the naked eye. Everything they observed in the night sky was fixed and it appeared and disappeared on a predictable, well known schedule (Genesis 1:14). The only objects in the night sky that changed against this fixed backdrop were the motions of the moon and the observable planets. While observations of the moon, solar and lunar eclipses and an occasional comet constitute the main recordings in ancient documents, the wise men were looking for the appearance of a specific star so their focus would have been on the planets, particularly Venus, because Venus has the most potential of any celestial object to form conjunctions. They very likely knew then, as we do today, that Venus was the Christ or Messiah star (Rev 22:16). Venus can form a conjunction with each of the visible planets and at least one significant star, one or more times each year, so there was ample opportunity for the wise men to observe the formation of conjunctions. As astronomers they would have become quite adept at predicting how close the separation between planets would be, days or even weeks before the planets actually converged. Although the actual formation of a single star was rarely if ever observed by the wise men or their ancestors prior this special appearance, they knew that because of the speed at which Venus conjunctions form, coupled with the very limited times and locations when they could be observed as a single star, the chances of actually observing one were negligible. The closest separation

between the planets in the 'heads up' star was .072 degrees when observed from Israel, but it was .15 degrees when the wise men observed it in the eastern sky from Sushan. The issue of whether or not these two planets can be observed as a single star with separation between .1 and .15 degrees continues to be debated, even today. From research and experience, I believe the differences in atmosphere and sky conditions between ancient and modern times are so significant that .15 degrees of separation was observed by the wise men as a single star, whereas today, it would be seen as two planets.

This 0.1-0.15 range of angular separation was the concern my online colleagues had about naked eye observations while I was doing research on the Christmas Star. Remember, they doubted that a conjunction with 0.1 degree of separation could be observed as a single star. Thus, I was determined to observe the 27 August 2016 conjunction for myself to confirm with the naked eye that it was a single star after determining where it could be observed. It turned out that the conjunction would reach its closest separation in time zone GMT-3 which runs north and south through the central Atlantic Ocean. Thus, the land masses from which to observe the 2016 conjunction were southern Greenland, eastern Brazil and the island of Bermuda. My wife liked the idea of vacationing in Bermuda so our 2016 summer vacation was a trip to Bermuda. The weather for the day before and day of (26-27 August) the conjunction was not good. On the 27th, it rained on and off all day with overcast or mostly cloudy skies. But that evening there was a short break in the clouds just in time to see the star, and for about 10 minutes on the evening of 27 August 2016, my wife and I observed a Venus Jupiter conjunction, with parameters nearly matching the 'heads up' conjunction of 3 BC, as a single star and, it was without question a single star. The link below titled Star Log Bermuda records the event:

<http://thatwebhostguy.com/ChristmasStar/TheChristmasStar/wp-content/uploads/2019/01/StarLogBermuda.pdf>

Even though we did not get photos of the conjunction as a single star as is explained in the star log, the computer image below shows what the conjunction looked like as a single star, exactly as we observed it.



Venus –Jupiter conjunction 08-27-2016 8:00 PM 0.1 degree separation Hamilton, Bermuda FOV

40x20 Brightness magnitude -3.90 Same parameters as the star wise men saw in the East (Ma 2:2)

Finally, and most importantly, the Bible tells us the wise men actually observed the 12 August 3 BC 'heads up' conjunction as a star. It wasn't a double star, a comet, a nova or whatever it has been described as throughout the ages. The wise men truly believed they had seen the Messiah's star that had transformed into the Christmas Star, marking the birth of the king of the Jews. *"...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 have come to worship him'" (Ma 2:2)*. There is nothing ambiguous about what the wise men reported seeing. The reference to "his star" could not have referred to Venus alone because Venus always appears as the morning star for at least a part of every year in the eastern sky. It's a common occurrence. This had to be the 12 August 2 BC conjunction the wise men referred to. If true, the question becomes, if the wise men believed the 12 August 3 BC conjunction was the Christmas Star, why didn't they immediately depart Persia for Jerusalem to worship the newborn king? While it may be that the wise men did not actually see the conjunction as a single star even though they knew it happened, which I doubt, my belief is that they saw the star, but because it happened quickly in less than optimum conditions with the conjunction forming when it was less than 20 degrees from the Sun, they decided that if the conjunction truly was the Christmas star, God would give them a confirmation heavenly sign to verify that what they had seen was indeed the star they had been seeking. The wise men did not have long to wait observing the night skies before the sign appeared.

Jupiter and Regulus – the 'Head out' Sign

It should not be a surprise that God used another unremarkable, but fairly rare celestial event to provide confirmation for the wise men that the August 3 BC conjunction was the star they had been looking for. I indicated previously that Jupiter's ten degrees of fixed retrograde motion is a common, unremarkable event because it happens annually, each time the Earth passes the planet in its orbit. The ten degrees of retrograde motion is hard to observe because it takes place over a six month period and there are normally no fixed references by which to observe Jupiter's motion. Remarkably, both Christmas Star Venus Jupiter conjunctions (Aug 3 BC and Jun 2 BC) appear in the constellation Leo and, Regulus, the king star (a double star), the primary star in Leo, is located directly on the ecliptic (the path the sun, moon and planets take through the twelve constellations). After the wise men observed the 12 August 3 BC conjunction, they would have continued observing Jupiter as it approached and passed Regulus in mid September. But, in early December, Jupiter began its retrograde motion after being passed by the Earth and Regulus was located in precisely the right location along the ecliptic for Jupiter's retrograde motion to be observed. Incredibly, Jupiter's retrograde motion resulted in a triple conjunction between Jupiter and Regulus, something the wise men had never seen before. From data provided by Allan Johnson who I acknowledged previously, it was determined that Jupiter's retrograde motion can potentially result in a triple conjunction with Regulus about once every seven cycles. Since Jupiter spends about 1 year in Leo every 12 years, the chances of a triple conjunction between Jupiter and Regulus occurring is about once every 84 years. In the Christmas Star DVD, I determined that when Jupiter passed Regulus (tracking backwards as observed from Earth) in February 2 BC, the wise men concluded that the 12 August 3 BC conjunction was, without question, the Christmas Star, so they made plans to depart Persia for Israel early that Spring, in time to arrive in Jerusalem in late May or June, assuming Jesus had been born ten months earlier on August 12, 3 BC.

You can watch this amazing heavenly sign, the Jupiter Regulus triple conjunction, on the following link: <https://youtu.be/CKb2Dn0EzT0>. The video clip was taken from The Christmas Star DVD and is narrated by Larry Smith. The green line passing through Leo and Virgo on the clip is the ecliptic. You can count

the number of months it takes for the Triple conjunction to take place by counting the number of times the moon passes Jupiter (once each month).

I believe the wise men 'headed out' for Israel in early to mid April 2 BC. By this time Venus had become the evening star. The next lesson is titled Venus the Day Star, a role only Venus could play in the Scriptural fulfillment of the Nativity story.