A Sign of His Coming

A Rare Conjunction of Jupiter and Saturn Between Capricorn and Sagittarius



Photo courtesy of NASA/JPL/University of Arizona/Space Science Institute

An incredible *sign* will appear in the heavens on the winter solstice in 2020 C.E. on the *first day* of the season of *winter* on Day 5 / Month 10 on the Creation Calendar. [5 Tevet = Monday, December 21, 2020 C.E. (2459205) = Day 5, Month 10] Technically speaking, Jupiter and Saturn will come within 0.1 degrees of each situated between the constellations of Capricorn and Sagittarius on 1:20 p.m. Eastern Standard Time on December 21, 2020 C.E.

When considered in a spiritual light from a Hebraic perspective, this is a wonderful sign for those looking for יהושע Messiah to come and bring world peace in the Sabbath of Millennia.

An Ancient Hebraic Perspective on the Conjunction

According to **Genesis 1:14**, Elohim created the sun, moon, and stars to give light which means both *physical light* as well as *spiritual enlightenment* and *prophetic understanding*.

Genesis 1:14-16 ¹⁴ Then Elohim said, "Let there be lights in the firmament of the heavens to divide the day from the night; and let them be for signs and Appointed Times, and for days and years; ¹⁵ and let them be for lights in the firmament of the heavens to give light on the earth"; and it was so. ¹⁶ Then Elohim made two great lights: the greater light to rule the day, and the lesser light to rule the night. He made the stars also.

Day after day the heavens pour forth speech and night after night they display intelligence.

Psalm 19:1-4A ¹ The heavens declare the brilliant majesty of Elohim and the firmament shows His handiwork. ² Day after day they constantly pour forth speech, and night after night they display intelligence. ³ There is no speech or language where their voice is not heard. ^{4A} Their line has gone out through all the earth, and their words to the end of the world.

The solar cycle which Elohim created is divided into four quadrants demarcated by the spring equinox, the summer solstice, the autumn equinox, and the winter solstice. The sign of Jupiter and Saturn in conjunction between Capricorn and Sagittarius is especially noteworthy as it falls on the winter solstice on the *first day* of *winter*. אונע Messiah commanded us to *watch* for His coming and the *season* of His return. Paul promised that we will reap in *due season* if we do not lose heart, referring to the *season* of the Messiah's return in the Millennial Sabbath Day.

Galatians 6:9 And let us not grow weary while doing good, for in **due season** we shall reap if we do not lose heart.

The Ancient Interpretation of this Sign

In Hebraic thought the planets and constellations have their own names and meanings.

- 1. Jupiter is *Tzedek* which means *Righteousness* and it is the planet of יהושע Messiah.
- 2. Saturn is *Shabbatai* which refers to the *Sabbath* which means to *cease or to rest*.
- **3.** Capricornus is the constellation of the tribe of *Gad* whose spiritual theme is *blessing the generous* and *granting abundance*.
- **4.** Sagittarius is the constellation of the tribe of *Asher* whose spiritual theme is *uprightness*, and *granting spiritual light in darkness*.

The **sign** occurs between **Gad** and **Asher**. One of the hidden miracles of the Torah is that Leah's maid Zilpah bore twins named **Gad** and **Asher** [Genesis 30:10-13]. When the Torah describes the births of the sons of Israel, it says that the mother **conceived** and then **bore** a son. However, the **conception** of Gad and Asher is not mentioned as they were conceived together as twins.

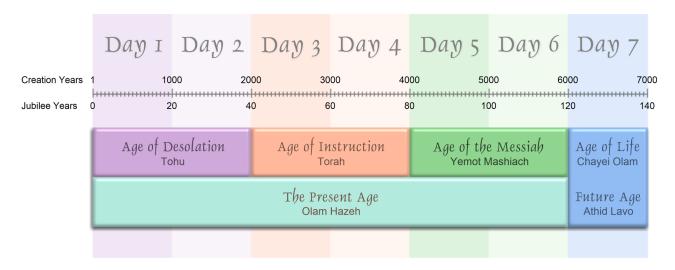
The ancient interpretation of this sign is that יהושע Messiah is coming to keep the Sabbath. He is upright and will grant spiritual light in darkness blessing the generous and granting abundance.

Now יהושע Messiah keeps the **Sabbath** on the **seventh day** of every week, and He keeps the **Sabbath** on the **seventh year** every seven years. However, at the penultimate moment in history, Messiah will keep the **Sabbath** when the **Seventh Millennial Day** begins at sunset on one particular day in Jerusalem, when the **Millennial Kingdom** and the **Age of Life** begin.

Is it possible that *this winter* is the *season* of the Messiah's return? Considering the *rarity* of the sign, the condition of the world, and where we are in cosmic time, it is definitely possible. It is rare for Jupiter and Saturn to come this close to each other. The last time they came *this close* was on **July 16**, **1623** C.E., and the last time they were *closer* was on **March 4**, **1226** C.E.

The Millennial Sabbath is the Goal of History

The 7000 Year Plan of Elohim



The Seventh Millennium is the *goal of history* and the 7000 Year Plan of Elohim is a major concept and foundational truth in understanding eschatology – the study of last things – and Scripture prophecy in general. From the creation of the universe to the end of the 1000 year reign of the Messiah in the Age of Life was understood to be 7000 years long.

The sages of Israel, when musing on the seven days of creation in Genesis 1:5, 1:8, 1:13, 1:19, 1:23, 1:31, 2:2-3, and Psalm 90:4 "For a thousand years in Your sight are but as yesterday when it is past" determined that mankind's history is destined to unfold over seven millennia.

Many centuries later this concept was taught by Peter as the one thing not to be ignorant of. Peter says in 2 Peter 3:8, "But, beloved, do not be ignorant of this one thing, that with one day is as a thousand years and a thousand years as one day." The writer of Hebrews was very conversant with the 7000 Year Plan of Elohim and the four ages it contains.

Hebrews 1:1-2 ¹ Elohim, who at various times and in various ways spoke in time past to the fathers by the prophets, ² has in these last days [the end of the fourth millennial day and the beginning of the fifth millennial day] spoken to us by His Son, whom He has appointed heir of all things, through whom also He made the ages [World that Was, Present Age, Age of Desolation, Age of Instruction, Age of the Messiah, Age of Life, World to Come].

Hebrews 11:3 Through faith we understand that the ages [World that Was, Present Age, Age of Desolation, Age of Instruction, Age of the Messiah, Age of Life, World to Come] were framed by the word of Elohim, so that things which are seen were not made of things which are visible.

From **Hebrews 9:26** it is evident that the disciples believed that יהושע Messiah *appeared* at the *end* of the **Age of Torah**.

Hebrews 9:26 But now He has appeared once for all at the end of the Age [of Instruction] to do away with sin by the sacrifice of Himself [on Passover at the beginning of the Age of the Messiah in 34 C.E.]

יהושע Messiah in fact appeared when He was born on New Moon 7 in 3 B.C.E. at the end of the Age of Torah. [1 Tishri = Thursday, September 12, 3 B.C.E. (1720582) = Day 1, Month 7] Messiah gave Himself as a ransom to do away with sin on Passover on the fourth day of the week in the midst of a seven day week [Daniel 9:27] in the Age of the Messiah in 34 C.E. [14 Nisan = Wednesday, March 24, 34 C.E. (1733559) = Day 14, Month 1]

The rabbis in the first century believed they were coming to the end of the **Age of Torah** and about to enter the **Age of the Messiah**. They believed that they were close to **Year 4000** since the creation of the universe, and that the arrival of the Messiah foretold by the Hebrew prophets was imminent. For this reason, Messianic expectations were high in first century **Judea**.

The 7000 Year Plan of Elohim has been the traditional understanding of time in Hebraic thought since Moses and remains the Hebraic concept of time to this day. The 7000 Year Plan of Elohim has been consistent with Hebraic thought for thousands of years. The Talmud mentions in Sanhedrin 97A-97B that the world is to exist for 7000 years based on Psalm 90:4.

Sanhedrin 97A-97B It has been taught in accordance with R. Kattina: Just as the seventh year is one year of release in seven, so is the world: one thousand years out of seven shall be fallow, as it is written, And יהוה alone shall be exalted in that day; and it is further said, A Psalm and song for the Sabbath day [Psalm 92:1], meaning the day that is altogether Sabbath – and it is also said, For a thousand years in thy sight are but as yesterday when it is past. [Psalm 90:4; thus 'day' in the preceding verses means a thousand years.]

The Tanna debe Eliyyahu teaches: The world is to exist six thousand years. In the first two thousand there was desolation; two thousand years the Torah flourished; and the next two thousand years is the Messianic era [i.e., Messiah will come within that period.], but through our many iniquities all these years have been lost. [He should have come at the beginning of the last two thousand years; the delay is due to our sins.]

This reference in the Talmud is historical evidence that this teaching has existed for millennia. Messiah in fact came as a *Suffering Servant* at the *beginning* of the last **two thousand** years and there *was no delay* then, just as there *will be no delay* when He comes to rule as a *Conquering King* when the **Seventh Millennium** begins when the **Seventh Trumpet** sounds. The school of Elijah taught the concepts of the ages in the **7000 Year Plan of Elohim**.

Jewish Encyclopedia 1901 – Tanna Debe Eliyahu – The Three Periods These six series are again divided into three main periods: (1) the Present World [6000 years]; (2) the Messianic Period [1000 years]; and (3) the Future World [eternal state]. These are subdivided into: (a) 2,000 years of Confusion ('tohu'); (b) 2,000 years of the Torah; (c) 2,000 years of the Messiah; (d) inauguration of

a **general peace** [1000 years]; (e) the Future World [eternal state] ('ib. p. 115). <www.jewishencyclopedia.com/articles/14239-tanna-debe-eliyahu>

Ken Johnson The school of Elijah taught that mankind's time was divided into three sets of two-thousand-year periods known as ages. There was the Age of Chaos, from Creation to the Call of Abraham. The second age was called the Age of Torah, extending from the call of Abraham to the dissolving of the sacrificial system. The third age was called the Messianic Age. Christians call this the Church Age. After the Messianic Age, there will be a thousand-year period of a Messianic Kingdom. Christians call this the Millennial Reign. Each age is broken up into periods of five-hundred years called Onahs [10 Jubilee Cycles of 50 years = 500 years = quincentennial period] (see Hebrew commentary on the Epistle of Elijah entitled the Tana Eliyahu for details).

Adapted from Ken Johnson, Th.D., <u>Ancient Testaments of the Patriarchs – Autobiographies from the Dead Sea Scrolls</u>, The Jubilee Prophecy, p. 159.

The **Epistle of Barnabas 15:1-9** is another historical text that explicitly ties the **seven days** of creation to **Psalm 90:4** and the **7000 Year Plan of Elohim**.

Epistle of Barnabas 15:1-8 ¹ Furthermore it is written concerning the **Sabbath**. in the Ten Commandments, which Elohim spoke to Moses on Mount Sinai face to face: "Set the Sabbath of יהוה apart [Exodus 20:8 / Deuteronomy 5:12] with pure hands, and with a clean heart [Psalm 24:3-4]." And elsewhere He says; "If your children shall keep My Sabbaths, then I will put my mercy upon them" [Exodus 31:13-17 / Jeremiah 17:24-26]. And even in the beginning of the creation He makes mention of the Sabbath. "And in six days Elohim made the works of His hands and He finished them on the seventh day and set it apart" [Genesis 1:31-2:3]. 4 Consider my children what that signifies, "He finished them in six days" [Exodus 20:11 / Exodus 31:17]. The meaning of it is this: that in six thousand years יהוה Elohim will bring all things to an end. 5 For with Him one day is a thousand years [Psalm 90:4 / 2 Peter 3:8]. Therefore, children, in six days, that is, in six thousand years, shall all things be accomplished. ⁶ And what does it mean when He says, "And He rested the seventh day"? [Genesis 2:2] He means this: that when His Son shall come, and abolish the season of the Wicked One, and judge the wicked; and shall change the sun and the moon, and the stars [Psalm 102:25-26]; then He shall gloriously rest on that seventh day [**Isaiah 11:10**] ⁷ He adds, lastly: "You shall set it apart with clean hands and a pure heart" [Psalm 24:3-4]. Wherefore, we are greatly deceived if we imagine that anyone can now set apart that day which Elohim has made set apart, without having a heart pure in all things. ⁸ Behold, therefore, He will then truly set it apart with blessed rest, when we, having received the righteous promise, when iniquity shall be no more, all things being renewed by יהוה, shall be able to set it apart, being made set apart ourselves.

The Epistle of Barnabas, Translated by James a Kleist, pp. 58-60 & Notes p. 179.

The Chronicles of Jerahmeel speak of the 7,000 year span in the universe.

The Chronicles of Jerahmeel 57:39-42 ³⁹ And the Spirit of יהוה came upon Kenaz, so that he prophesied, saying "I have seen what I had not hoped for, and have looked upon what I had not imagined. 40 Behold, I saw a flame which did not burn, and I heard in my dream the noise of the rushing of waters which had no source and no way upon the mountains, and no base in the air, but they appeared according to their form. They had no fixed place, and since the eye does not know what to see, how can the heart understand it? 41 From this flame which was not burning I saw a spark fly out and remain in the air as a shield, as a spider's web in a beam. Then I saw that this was the base and its source vomited hot foam, and became changed to the foundation of the deep, and ways (paths) were between the upper and lower bases; there shone the hidden light, and beings, in the form of men, were walking about. And then I heard a voice saying, "Between these foundations (bases) shall the sons of man dwell 7,000 years, when the lower foundation shall be destroyed, and the upper one which is like hot foam shall be the foundation, and the light which is between them and illumines the path of man is Jerusalem, and there the men will dwell. But when the sons of man shall sin against Me, and the time of their sinning shall have been completed, then shall the spark be extinguished, and the fountain dry up, and everything pass away." 42 When Kenaz had thus finished prophesying, the spirit of his soul returned to him, and he no longer knew what he had uttered in his prophecy. He then said to the people, "If such be the rest which the righteous obtain after their death, it would be preferable for them to die at their birth in this world and not sin." And Kenaz died, and Othniel his son arose in his stead.

M. Gaster, (PH.D. Translator) <u>The Chronicles of Jerahmeel</u> – The Hebrew Bible Historiale – A Collection of Apocryphal and Pseudo-Epigraphical Books Dealing with the History of the World from the Creation to the Death of Judas Maccabeus – Translated for the first time from a unique manuscript in the Bodleian Library, 1899, pp. 172-173.

Irenaeus, who was trained by Polycarp who was trained by the Apostle John, believed that history concludes at the end at the **six thousandth year** when the **seventh millennium** begins.

Irenaeus c.130-202 C.E. Against Heresies, Book 5 / 28 / 3 For in as many days as this world was made, in so many thousand years shall it be concluded. And for this reason the Scripture says: "Thus the heaven and the earth were finished, and all their adornment. And Elohim brought to a conclusion upon the sixth day the works that He had made; and Elohim rested upon the seventh day from all His works." This is an account of the things formerly created, as also it is a prophecy of what is to come. For a day with יהוה is a thousand years [2 Peter 3:8]; and in six days created things were completed; it is evident therefore, that they will come to an end at the six thousandth year.

Adapted quotation from Irenaeus. Adversus haereses, Book V, Chapter 28:2-3; 29:2. Excerpted from <u>Ante-Nicene Fathers</u>, Volume 1. Edited by Alexander Roberts & James Donaldson. American Edition, 1885. Online Edition Copyright © 2004 by K. Knight.

http://www.cogwriter.com/six_thousand_year_plan_6000.htm

Also see Walter Veith & Martin Smith – Is This The End? Questions Answered – What's Up Prof 9 https://www.youtube.com/watch?v=qdfHzjGmPHo

There has always been a remnant who believed in the 7000 Year Plan of Elohim.



Cyprian c.250 C.E. "The Treatises of Cyprian" Chapter 11 The first seven days in Elohim's arrangement contain seven thousand years. [Cyprian was an arch champion of orthodox Christianity against heresies]

Eddie Chumney http://www.hebroots.org/hebrootsarchive/9807/980715_d.html

Commodianus c.250 C.E. Adam was the first who fell, and that he might shun the precepts of Elohim, Belial was his tempter by the lust of the palm tree. And he conferred on us also what he did, whether of good or of evil, as being the chief of all that was born from him; and thence we die by his means, as he himself, receding from the divine, became an outcast from the Word. We shall be immortal when six thousand years are accomplished.

Victorinus of Pettau c.290 C.E. ... that true and just Sabbath should be observed in the seventh millenary of years. Wherefore to those seven days יהוה attributed to each a thousand years; for thus went the warning: "In Your eyes, Oh יהוה, a thousand years are as one day." [Psalm 90:4] Therefore in the eyes of יהוה are seven thousand years is ordained, for I find that the eyes of יהוה are seven [Revelation 5:6]. Wherefore, as I have narrated, that true Sabbath will be in the seventh millenary of years, when Messiah with His elect shall reign.

Victorinus. <u>Commentary on Creation</u>. Translated by Robert Ernest Wallis. From <u>Ante-Nicene Fathers</u>, Vol. 7. Edited by Alexander Roberts, James Donaldson, and A. Cleveland Coxe. Buffalo, NY: Christian Literature Publishing Co., 1886. Revised and edited for New Advent by Kevin Knight.

Lactantius was tutor to the son of the **Roman** Emperor **Constantine I** (306-337). He was a highly respected scholar who wrote sometime before his death in 330 C.E.

Lactantius c.300 C.E. The Divine Institutes, Book 7, Chapter 25 I have already shown above that when 6000 years shall be completed this change must take place. Chapter 26 But he [Satan] also, when the thousand years of the Kingdom [Age of Life], that is, 7000 of the world, shall begin to be ended, will be loosed afresh, and being sent forth from prison, will go forth and assemble all the nations, which shall then be under the dominion of the Righteous, that they may make war against the Set Apart City.

Eddie Chumney http://www.hebroots.org/hebrootsarchive/9807/980715 d.html>

The **Secrets of Enoch** speak of this **7,000 year** span in the universe and that which comes *after* which is **The World to Come**.

Secrets of Enoch 33:1-2 ¹ And I appointed the eighth day also, that the eighth day should be the first created after My work, and that the first seven revolve in the form of the seven thousand, and that at the beginning of the eight thousand [The World to Come] there should be a time of not counting, endless, with neither years nor months nor weeks nor days nor hours. ² And now, Enoch, all that I have told you, all that you have understood, all that you have seen of

heavenly things, all that you have seen on earth, and all that I have written in books by My great wisdom, all these things I have devised and created from the uppermost foundation to the lower and to the end, and there is no counselor nor inheritor to My creations.

The Reluctant Messenger https://reluctant-messenger.com/2enoch01-68.htm

The World to Come is also called the Eternal State but Scripture refers to it as the Third Heaven [2 Corinthians 12:2] or Paradise [Luke 23:43 / 2 Corinthians 12:4 / Revelation 2:7].

Luke 23:42-43 ⁴² Then he said to יהושע, "Master, remember me when You come into Your Kingdom." ⁴³ And יהושע said to him, "Truly, I say to you, this day [the fourth day of the week] you will be with Me in Paradise."

2 Corinthians 12:1-5 ¹ It is doubtless not profitable for me to boast. I will come to visions and revelations of the Master: ² I know a man in Messiah who fourteen years ago —whether in the body I do not know, or whether out of the body I do not know, Elohim knows — such a one was caught up to the **Third Heaven**. ³ And I know such a man —whether in the body or out of the body I do not know, Elohim knows — ⁴ how he was caught up into **Paradise** and heard inexpressible words, which it is not lawful for a man to utter. ⁵ Of such a one I will boast; yet of myself I will not boast, except in my infirmities.

Revelation 2:7 "He who has an ear, let him hear what the Spirit says to the assemblies. To him who overcomes I will give to eat from the **Tree of Life**, which is in the midst of the **Paradise of Elohim**."

Before the Messiah returns, those who keep the commandments of Elohim and remain faithful to 'Messiah will be following the Creation Calendar. Many among the nations will be turned to righteousness as the world ushers in the Messianic Age – the Age of Life.

Aryeh Kaplan "The ultimate goal of the historic process is the perfection of society as a vehicle for Elohim's goodness. This goal is what we call the **Messianic Age**, and it is the focus of the entire historical process." Aryeh Kaplan, The Aryeh Kaplan Anthology II, p.258.

The seven days of creation are *pillars* for understanding *when* the Millennial Kingdom begins.

Proverbs 9:1 Wisdom has built her house, she has hewn out her seven pillars.

Sanhedrin 38A Wisdom has built her house, – this is the attribute of the Set Apart One, blessed be He, who created the world by wisdom. She has hewn out her *seven pillars* – these are the *seven days* of creation.

The current rabbinic calendar used in the land of Israel which is published daily in newspapers is theoretically the number of years that have passed since Adam. However, it has been noted that rabbinic chronology in the **Seder Olam Rabbah** compresses the **Persian** period to **52 years**. [See George Foot Moore, <u>Judaism in the First Centuries of the Christian Era: The Age of Tannaim</u>, Volume 1, p. 6, & Hebraic Heritage Ministries International – Line Upon Line – Lesson #6 – The 7000 Year Plan of Elohim. https://www.hebroots.com/lul6.html See also Wikipedia – https://en.wikipedia.org/wiki/Seder_Olam_Rabbah

In fact the Persian period lasted for 192 years from Darius I (521-485) in 521 B.C.E. to Darius III (336-330) in 330 B.C.E. This one blunder alone is a 140 year error in rabbinic chronology.



The Sky Between October 2 and December 21, 2020 C.E.

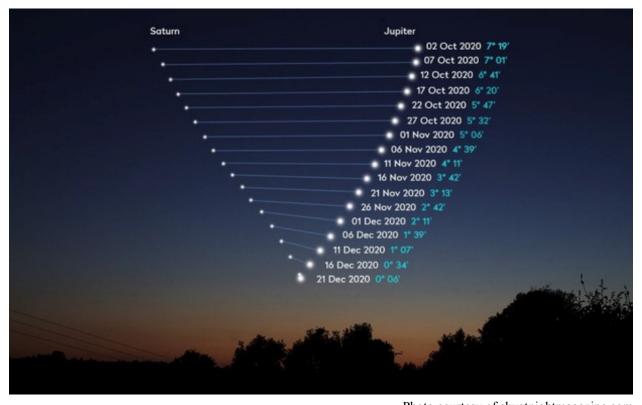


Photo courtesy of skyatnightmagazine.com

The image above is a simulation of how Saturn and Jupiter come together in 2020 C.E.

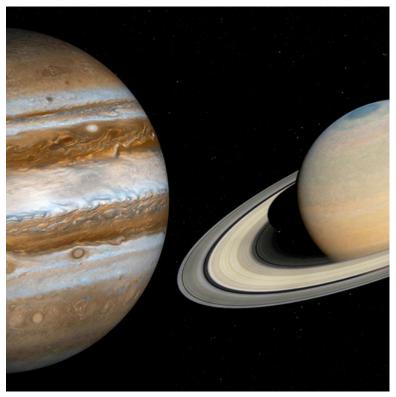
The penultimate moment in history when the **Seventh Millennial Day** begins at sunset on one particular day in Jerusalem is near. Considering the rarity of the sign, the condition of the world, and where we are in cosmic time, it is conceivable that this winter is the season of the Messiah's return.

In *any event*, the "great conjunction" of Jupiter and Saturn between Capricorn and Sagittarius on the *first day* of the season of *winter* on the winter solstice in **2020** C.E. signals that יהושע Messiah is *coming soon* to keep the Millennial Sabbath. He is upright and will grant spiritual light in darkness blessing the generous and granting abundance.

An Appendix on the Conjunction of Jupiter and Saturn Between Capricorn and Sagittarius on December 21, 2020

CBS NEWS

Sophie Lewis Before **2020** comes to a close, Jupiter and Saturn will be so close that they will appear to form a "double planet." The great conjunction, as the planetary alignment has come to be known, hasn't occurred in nearly **800 years**.



Getty Images saturnjupiter.jpg

When their orbits align every 20 years, Jupiter and Saturn get extremely close to one another. This occurs because Jupiter orbits the sun every 12 years, while Saturn's orbit takes 30 years – every couple of decades, Jupiter laps Saturn according to NASA.

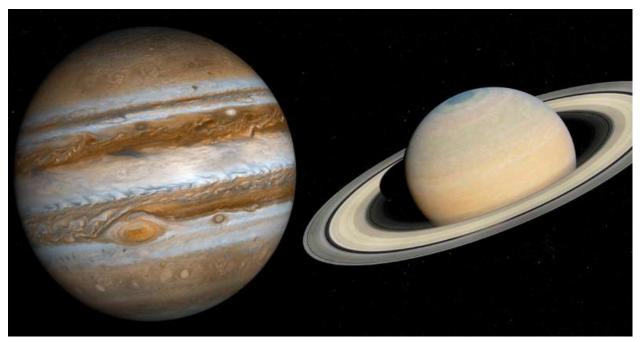
The **2020** conjunction is especially rare – the planets haven't been observed this close together since medieval times, in **1226**.

"Alignments between these two planets are rather rare, occuring once every 20 years or so, but his conjunction is exceptionally rare because of how close the planets will appear to one another," Rice University astronomer Patrick Hartigan said in a statement. "You'd have to go all the way back to just before dawn on March 4, 1226, to see a closer alignment between these objects visible in the night sky."

Aligning with the winter solstice on **December 21**, **2020**, the two planets will be just 0.1 degrees apart – less than the diameter of a full moon, EarthSky said. The word "conjunction" is used by astronomers to describe the meeting of objects in our night sky, and the great conjunction occurs between the two largest planets in our solar system: Jupiter and Saturn.

The planets will be so close, they will appear, from some perspectives, to overlap completely, creating a rare "double planet" effect.

However, while they may appear to the naked eye very, very close, in reality, they are still hundreds of millions of miles apart, NASA said.



Provided by CBS News

Jupiter and Saturn will come within 0.1 degrees of each other on December 21, 2020.

How to watch the great conjunction

During the last great conjunction in **2000**, Jupiter and Saturn were so close to the sun that the event was difficult to observe. But skywatchers should have a clearer view of the celestial event this time around. The great conjunction will be shining bright shortly after sunset, low in the southwestern sky, as viewed from the Northern hemisphere, NASA said.

Through the entirety of December, skywatchers will easily be able to spot the two planets. For the next three weeks, you can look up each evening to watch them get closer and closer in the sky.

Jupiter currently appears brighter than any star in the sky. Saturn is slightly dimmer, but still just as bright as the brightest stars, with a recognizable golden glow.

Saturn will appear just to the east of Jupiter, and will even look as close to the planet as some of its own moons. Unlike stars, with twinkle, both planets will hold consistent brightness, easy to find on clear nights.

The event is observable from anywhere on Earth, provided the sky is clear. "The further north a viewer is, the less time they'll have to catch a glimpse of the conjunction before the planets sink below the horizon," Hartigan said.

The planets will appear extremely close for about a month, giving skywatchers plenty of time to witness the spectacular alignment throughout the holiday season. The event aligns with the December solstice, marking the shortest day of the year in the Northern hemisphere.

NPR / GPB



Ted S. Warren/AP

Saturn (center, left) and Jupiter (center, right) share a night sky earlier this year near Vantage, Wash. Already this past summer, the two planets were growing closer in the night sky.

Colin Dwyer – December 9, 2020 1:29 PM ET In popular culture has taught us anything about the holidays, it's that this is a season of reunions: a time when people conquer great distances

and lengthy separations just to be together again. Usually, though, such stories involve cross-country trips – not the orbits of the two largest planets in our solar system.

This year is different.

On **Dec. 21**, Jupiter and Saturn – which are usually separated by more than 400 million miles – are expected to appear closer together to each other in the night sky than they have for centuries. Seen as the right hour, whether by telescope or the naked eye, the gas giants will be separated by roughly a fifth of the diameter of the typical full moon. At this proximity, the planets will appear to touch or even form one large, brilliant star in the sky.

The spectacle is a curious effect of their orbits. Since Jupiter takes a little less than 12 years to circle the sun and Saturn takes more than 29, the planets appear to earthlings to meet roughly every 20 years, in what astronomers call a "great conjunction." The last great conjunction occurred in May 2000, though its position in the sky at the time meant the average stargazer likely lost it in the glare of the sun.

But you'll need to reach much further into the past to find the last instance such a conjunction was this close and this visible to stargazers. The Perth Observatory in Australia says that Jupiter and Saturn last approached this closely to each other in **July**, **1623**, but as with the conjunction in **2000**, it was hard to spot.

"You'd have to go all the way back to just before dawn on **March 4**, **1226**, to see a closer alignment between these objects visible in the night sky," Patrick Hartigan, an astronomer at Rice University, explained in a statement last month.

There's still another holiday connection at work here, beyond a simple coincidence of timing. Some astronomers, dating back to Johannes Kepler in the 17th century, have conjectured that the Star of Bethlehem that guided the three wise men to Jesus Christ's birthplace in the Bible was a conjunction like the one set to appear later this month – although likely one involving different planets.

Saturn and Jupiter began appearing close to each other this past summer, but this spectacle of proximity will clearest beginning in mid-December.

"Look for them low in the southwest in the hour after sunset. And on **December 21st**, the two giant planets will appear just a tenth of a degree apart – that's about the thickness of a dime held at arm's length!" NASA explained earlier this month. "This means the two planets and their moons will be visible in the same field of view through binoculars or a small telescope. In fact, Saturn will appear as close to Jupiter as some of Jupiter's moons."

After the winter solstice, the two planets will appear to begin moving apart again.

Now, this sentimental holiday reunion is no Hallmark movie; if you miss it this year, don't expect to see it again next **December**. Astronomers say there won't be another great conjunction this close until **2080**.

https://www.npr.org/2020/12/09/944560103/jupiter-and-saturn-will-be-together-again-for-the-holidays

USA TODAY

Wyatte Grantham-Philips – Published 10:11 p.m ET Dec. 3, 2020 – Updated 12:00 p.m. ET Dec. 7, 2020 – Worlds align this winter solstice: Look for Jupiter, Saturn in December skies This year's winter solstice will bring a rare sight to our night skies – just in time for the holidays.

For Earth viewers, Jupiter and Saturn will appear closer to each other on **Dec. 21** than they have been since the Middle Ages. If you gaze into the southwestern horizon at the right time, the two gas giants will look like neighboring points of light.

They will appear to be almost a "double planet," said Rice University astronomer Patrick Hartigan.

"Alignments between these two planets are rather rare, occurring once every **20 years** or so, but this conjunction is exceptionally rare because of how close the planets will appear to one another," Hartigan said.

"You'd have to go all the way back to just before dawn on **March 4**, **1226**, to see a closer alignment between these objects visible in the night sky."

Astronomers call what we'll witness on **Dec. 21** a "conjunction." From asteroids or moons to planets and stars, a conjunction is when two objects in space appear to be close to each other as observed from Earth. In the reality of space, they're still hundreds of millions of miles apart.

Every **20 years**, our solar system's largest planets align during their orbits around the sun. Jupiter and Saturn's last conjunction was in **2000**. But this year is particularly special because the two will appear to be separated by just one-fifth the diameter of a full moon – or 0.1 degrees – an occurrence the world hasn't seen since the Middle Ages.

The last time Jupiter and Saturn came this close was **1623**, but that conjunction was too near the sun to be seen by Earthlings. So **1226** is actually the most recent time such a close conjunction of Jupiter and Saturn was visible by humans.

"That's just shy of **800 years** ago," said Amy Oliver, spokeswoman for the Harvard-Smithsonian Center for Astrophysics. "Call (**2020**'s conjunction) a unique holiday gift to the world," she said. "Maybe it's the soothing band-aid for 2020."

How to watch the 2020 conjunction on Dec. 21

Saturn and Jupiter are already visible in December's sky; the two planets have been moving closer to each other for much of **2020**. They will look like two points of light in the sky. Saturn, which is farther from Earth, will be the fainter one.

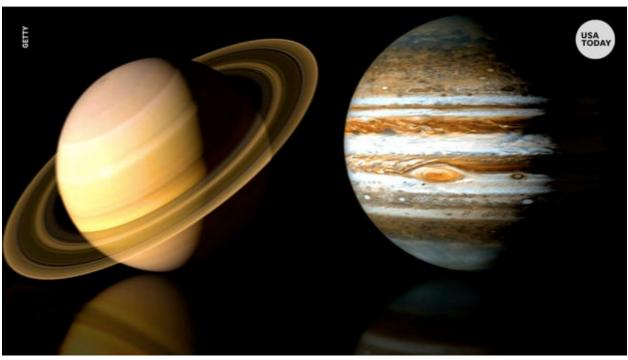
Hartigan and Oliver encourage stargazers around the world to start looking now.

"Over the next couple of weeks you can watch them move, which is super-cool, because you're actually seeing planets in orbit," Hartigan told USA TODAY, adding that identifying them now will also make the conjunction on winter solstice easier to identify.

And to witness the conjunction on **Dec. 21**? Weather permitting, it will be observable anywhere on Earth, although it will be more difficult in high northern latitudes.

"People are going to have to work a bit," Hartigan said. He added that the two planets "are not going to suddenly look like a brilliant 'Christmas star."

You won't need a telescope, but you'll have to find a good viewing spot and be on time. Avoid tall buildings or mountains, and look toward the low southwestern horizon right after sunset.



Getty

Don't miss 2 planet's 'Great Conjunction,' rare astronomical event on winter solstice.

If you're too early, you might miss a fainter Saturn. If you're too late, the two may have already slipped into the horizon for the night.

The best viewing conditions will be near the equator. There will be less time to catch a glimpse farther north.

Oliver said the best time for viewing is between dusk and 15 to 20 minutes after dark.

She added that the maximum conjunction will occur at 1:20 p.m. ET on Dec. 21, and it won't be visible to the naked eye during daylight. Still, Americans across the U.S. will be able to see the conjunction in the early night on December 21, weather permitting.

"That doesn't make it any less special," Oliver said. The pairing will be "still so close together that by far beats other past events."

If a snowy day or tight schedule makes you miss winter solstice's sky event, never fear: Although the maximum conjunction is on **Dec. 21**, Jupiter and Saturn will still appear to be closer than the diameter of a full mon from **Dec. 16** to **Dec. 25**.

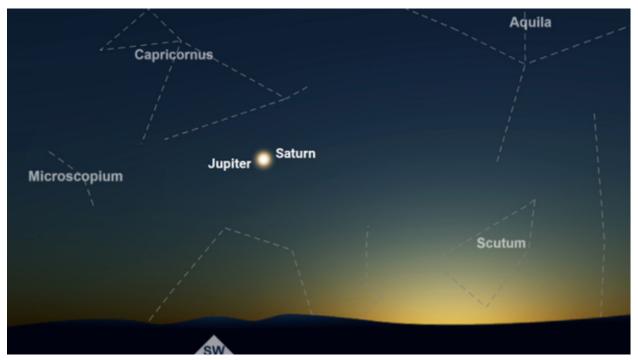
Such a close conjunction won't happen again until early **March 15**, **2080**. Although this might be the only time most adults witness the rare occurrence, Hartigan adds that it's a special opportunity for family.

Parents can show the conjunction to their kids, he said, and tell them, "60 years from now, when I'm long gone ... you go out in the morning sky and look at this conjunction, and you think of me."

Hartigan says looking up to the sky enriches people's lives. "Astronomy give you a different kind of perspective on the universe, which is different from our day-to-day experiences," he said. "Things are going on above us all the time. They mark eras ... It's an important connection between generations." https://www.usatoday.com/story/news/nation/2020/12/03/2020-great-conjunction-rare-christmas-star-jupiter-saturn-align/3808185001/>

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Graham Jones – The December 2020 Great Conjunction The year 2020 will end with a special astronomical event: the closest great conjunction of Jupiter and Saturn in 397 years. On December 21, the two planets will almost touch the sky.



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Our Night Sky Map shows Jupiter and Saturn appearing as a single "star" on December 21, 2020.

What is a Conjunction?

Generally speaking, a conjunction is when two objects appear close to each other in the sky. A conjunction of Jupiter and Saturn – which only happens about once every 20 years – is called a great conjunction.



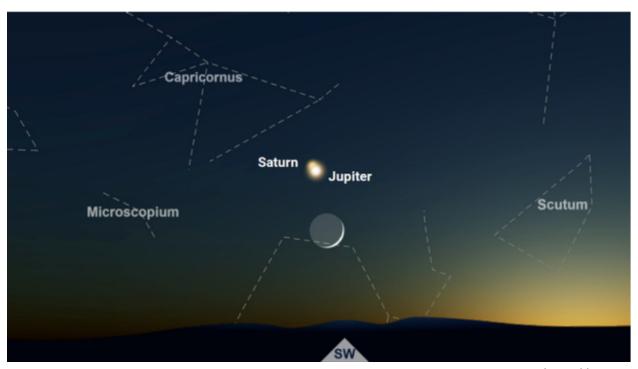
In the technical language of astronomers, there are a number of ways to define a conjunction. One way is to say it is the moment of minimum separation between two objects as viewed from the Earth. By this definition, the 2020 great conjunction of Jupiter and Saturn will occur at about **18:20 UTC on December 21**.

What Can We See, and When Can We See It?

Since **September 2020**, Jupiter has been moving closer and closer to Saturn in the early evening sky. Wherever you are in the world – even in the light polluted urban environments – the two planets are an impressive sight, and easy to find after sunset. If you're in the Northern Hemisphere, look toward the southwest. If you're in the Southern Hemisphere, look toward the west. Jupiter is the brighter of the pair.

As November begins, Jupiter and Saturn are five degrees apart, which is the width of your three middle fingers held at arm's length. (Another way to think about angular distances in the sky is to remember that the Moon's size is about half a degree.) At the start of December, the planets will be two degrees apart, and still moving closer together.

A few days before **December 21**, a thin Crescent Moon will pass close to Jupiter and Saturn in the sky. In the Western Hemisphere, the Moon will be closest to the two planets on **December 16**. In the Eastern Hemisphere, it will be closest on **December 17**.



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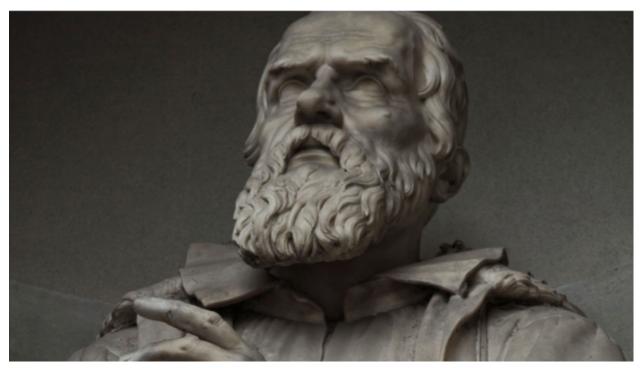
On December 16 and 17, Jupiter and Saturn will be joined by a thin Crescent Moon. This is our Night Sky Map for New York City on December 16, abut 45 minutes after sunset.

Just 0.1 Degrees Apart on December 21

On **December 21**, the day of the conjunction, Jupiter and Saturn will be separated by a mere 0.1 degrees, and may appear as a single bright "star." The two planets are completely merged together on our Night Sky Map for this date, although a careful observer should be able to separate them in the sky with the naked eye. It will be the closest great conjunction since **July 16**, 1623.

The pair of planets will become visible at twilight, close to the southwestern horizon in the Northern Hemisphere, or the western horizon in the Southern Hemisphere. They will set within a couple of hours or so, so it is important to have a clear view toward the horizon.

Jupiter and Saturn will continue to be an impressive sight in the early evenings following **December 21**. During **January 2021**, however, the two planets will become lost in the glare of the Sun.



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This will be the closest together that Jupiter and Saturn have been since 1623 – which was nine years before Galileo published a controversial book to promote the idea that the Earth moves around the Sun.

Why Do Conjunctions Happen?

The solar system is the shape of a thin disk: the Earth, the Moon, and the planets orbit the Sun in roughly the same plane. Astronomers call this plane the ecliptic. Because of this alignment, the Sun, the Moon, and the five planets visible to the naked eye – Mercury, Venus, Mars, Jupiter, and Saturn – follow the same general path as they travel across the Earth's sky.

This is why the Sun, the Moon, and the planets sometimes meet the sky. These meetings are conjunctions.

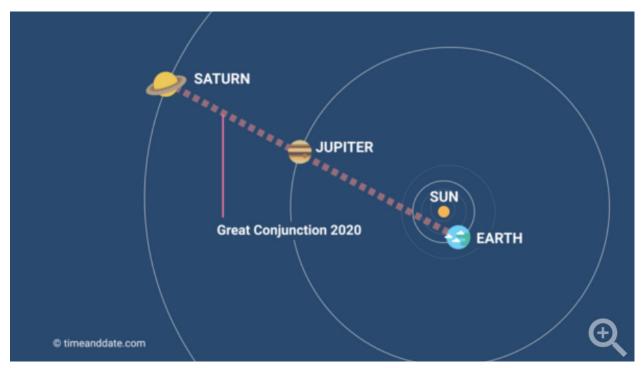
How Often Do Conjunctions Occur?

Conjunctions involving the Moon happen frequently. As it circles the Earth once a month, the Moon passes each of the planets in the sky. When the Moon passes the Sun, the result can be an eclipse (which is where the term ecliptic comes from). The reason an eclipse doesn't happen every month is that the Moon's orbit is slightly tilted in relation to the ecliptic, and it normally passes above or below the Sun.

A conjunction of Jupiter and Saturn, on the other hand, is relatively rare: it only happens about once every 20 years. For this reason, it is known as the great conjunction.

Why Are Jupiter-Saturn Conjunctions So Rare?

Jupiter and Saturn are much farther away than the other naked-eye planets. This means they move more slowly, because an object's orbital speed decreases with distance. The Earth takes **one year** to complete one orbit of the Sun, but Jupiter takes **12 years**, and Saturn takes **30 years**.



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This image, looking down on the solar system from outer space, shows the alignment of the planets for the Great Conjunction of 2020. The distances are to scale; the sizes of the Sun and the planets are not.

As a result of their long orbits, Jupiter and Saturn meet in the sky only once every **20 years**. In this period of time, Saturn completes two-thirds of its **30-year** orbit (since 20 is two-thirds of



30). In the same period, Jupiter completes one **12-year** orbit, plus, in the remaining **8 years**, two-thirds of its next orbit (since 8 is two-thirds of 12). In other words, **20 years** is the time it takes Jupiter to catch up and pass Saturn again as they circle the Sun. The above figures are round numbers. More precise figures are 11.86 years for Jupiter's orbital period, **29.46 years** for Saturn's orbital period, and **19.86** years for the average frequency of a great conjunction.

Triple Conjunctions

Occasionally, Jupiter appears to pass Saturn three times, in a zigzag fashion. This phenomenon, which is called triple conjunction, is an illusion caused by Earth's own movement around the Sun. The most recent triple conjunction was in 1980-81, when Jupiter passed Saturn on December 31, 1980 – and then again on March 4 and July 24, 1981.

When Will the Next Great Conjunctions Take Place?

After 2020, the next great conjunctions will occur on November 2, 2040 and April 7, 2060. On both these occasions, the minimum separation of Jupiter and Saturn will be 1.1 degrees – which means they will be eleven times farther apart than on December 21, 2020.

In fact, the 2020 great conjunction of Jupiter and Saturn is exceptionally close. Over a period of one thousand years, from 1600 to 2599, there are only six great conjunctions where the minimum separation between Jupiter and Saturn is less than 0.2 degrees: 1623, 1683, 2020, 2080, 2417, and 2477.

Does Jupiter Ever Pass Directly In Front of Saturn?

On extraordinarily rare occasions, a great conjunction is so close that Jupiter passes directly in front of Saturn. If Jupiter partially obscures Saturn, the event is known as a transit. If Jupiter completely covers Saturn, it is called an occultation.

Over the next **10,000 years**, Jupiter will transit or occult Saturn three times: **February 16**, **7541** (a transit); **June 17**, **7541** (an occultation); and **February 25**, **8674** (a transit). https://www.timeanddate.com/astronomy/planets/great-conjunction

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