

## Magnetic Portals And 3 Planet Resonances Create Sunspots

Patrick Geryl (patrick.geryl (add) skynet.be) February 19, 2015

**Abstract:** *Every relevant sunspot can be calculated beforehand. The main inducer is the magnetic field of the Sun. This sends “charged particles” to the planets and planetoids. They “load” them up. When 3 planets (or a combination with planetoids align or resonate), they create a kind of “electromagnetic wave pattern” that connects with the Sun. This signal is taken up by the magnetic field of the Sun and made stronger. We find overwhelming proof for this theory in the statement from NASA that “Magnetic Portals Connect to the Sun.”*

### I. This Document

This document aims to present how far this theory has evolved since research began in the 1990’s. It is based upon planetary line ups creating sunspots, and then planetary line ups ‘charging up’ sunspots so that they create a flare.

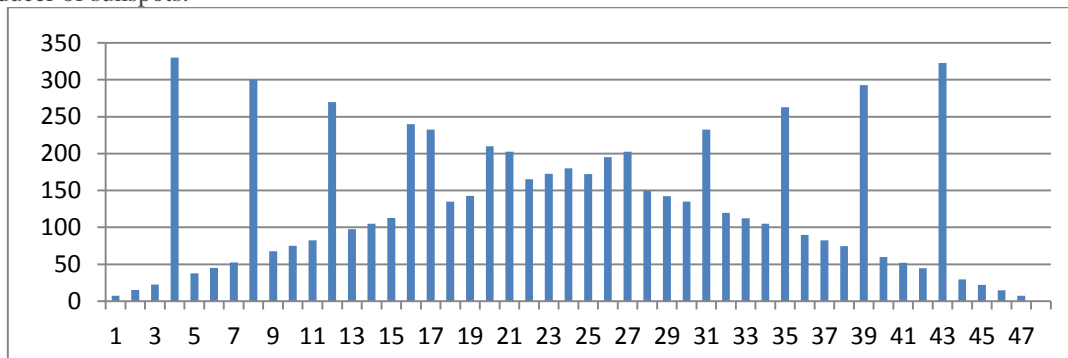
After reading a lot of papers concerning a relation between planetary movements and sunspots, I have following remarks why they failed:

- 1) Sunspots are created from a combination from gravitational tides and radio signals. This has been known for a long time, but wasn't investigated enough. Here is an article with basic calculations about the electrostatic effects from planets on the Sun: <http://rspa.royalsocietypublishing.org/content/85/579/309.full.pdf>
- 2) You also need to include Pluto and 5 planetoids in the formation from Sunspots. Without them you have only a minority from the sunspots.
- 3) The most important factor: Sunspots are created by the resonance or alignment of 3 planets. This has to be in a straight line (3.5 degrees to all sides from the midpoint). The alignment doesn't have to go through the Sun and can be in any direction. Nobody took this in consideration.
- 4) You also need a theory which explains why there is higher intensity possible at the height of the cycle. And why the same alignments have none effect at the bottom of the sunspot cycle and a large effect at the height. This is the sunspot intensity theory.

**Conclusion:** These 4 findings are the reason why all attempts failed till now.

### II. Explanation From The Polar Fields Strength Theory In Combination With The 3 Planet Resonances Theory

The magnetic intensity theory is crucial in understanding why 3 planet resonances were always overlooked as an inducer of sunspots.



**Figure 1:** Simulated static approach from the absolute value of the polar fields strength. You see a clear 11 year cycle. Also you depict sudden jumps (caution: the dynamic approach will give us different values because the high from most sunspot cycles lays normally in the first half of the cycle). This is explained in: *An Outline For The Dynamic Approach Of The Sunspot Cycle.*

## Conclusions:

- 1) The formation of sunspots will be the strongest at the height of the cycle.
- 2) The factor that induces sunspots, in other words the strength of the planetary resonances (alignments), has to be multiplied with the strength of the magnetic intensity (strength of the Sun's polar field). For instance if we have a factor 1 that induces sunspots then:
  - a) If the magnetic intensity is 100 %, the sunspot strength will be also 100 percent.
  - b) At the low of the cycle, the magnetic intensity is near zero. The strength of our sunspot is also zero. No sunspots will be formed! So a planetary alignment that gives a sunspot with X flare potential at the height, will form a near invisible sunspot at the low of the cycle!
  - c) Between in values can also be calculated with the strength of the of the Sun's polar field.
  - d) Sudden jumps give a time frame where intense magnetic activity is created. Big sunspot activity is possible. Lower points of the sunspot cycle can have higher sunspot activity then at the top. Take the November 3, 2003 super flare for instance. It can be calculated with a combination from the strength of the polar field (in absolute value!) and the 3 planet resonances theory.

## III. NASA Relevance

In 2008 NASA sent this headline into the world, "Magnetic Portals Connect Earth to the Sun." **Highlights from the 2008 (October 30<sup>th</sup>) NASA article :** *"During the time it takes you to read this article, something will happen high overhead that until recently many scientists didn't believe in. A magnetic portal will open, linking Earth to the sun 93 million miles away. Tons of high-energy particles may flow through the opening before it closes again, around the time you reach the end of the page. Researchers have long known that the Earth and sun must be connected. Earth's magnetosphere (the magnetic bubble that surrounds our planet) is filled with particles from the sun that arrive via the solar wind and penetrate the planet's magnetic defenses. They enter by following magnetic field lines that can be traced from terra firma all the way back to the sun's atmosphere." "We used to think the connection was permanent and that solar wind could trickle into the near-Earth environment anytime the wind was active," says Sibeck. "We were wrong. The connections are not steady at all. They are often brief, bursty and very dynamic."*

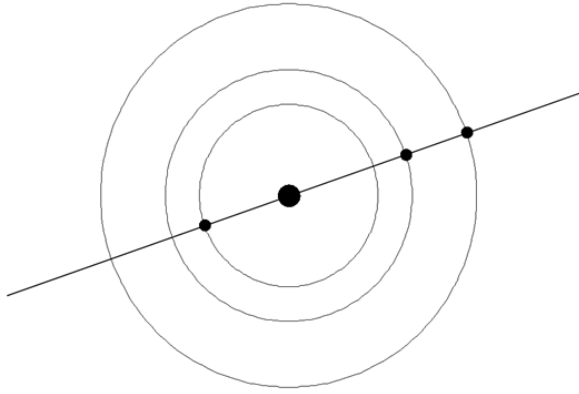
Nasa also found a connection between Mercury, Venus, Mars and the Sun. If we assume that the same principle can be applied for all the planets and also for five planetoids, then we find a surprising connection between planetary alignments and the creation of sunspots. In short; Planetary alignments create certain magnetic inductions that are amplified by the magnetic field of the Sun. With this principle we can calculate how and when sunspots will be created and which magnetic memory they will have.

## IV. Caveats And Theory Foundation

- There is currently no astronomical program to calculate all of the possible planetary line ups.
- Some combinations can be quite large and complicated (see further).
- The findings in this document are basic and a large research program is needed to find all of the other possible line ups. However, we have the most important ones and can explain many large sunspots. Smaller sunspots are more challenging.
- Planets and planetoids don't move in the same equator plane from the Sun. Some are higher or lower than the mean. Therefore there can be big differences from Line Ups between planets.

### Definitions:

- Two planets that heliocentrically align on the same side of the Sun: Conjunction.
- Two planets that heliocentrically align on the opposite sides of the Sun: Opposition.
- Triple Line Up: Any Three Planets, planetoids, or combinations, which Line Up. Remark: There can be quite a bit of difference in one day within these Triple Line Up, due to fast Mercury that moves around 4 degrees a day, and Venus around 1.6 degrees a day.
- The Triple Line Up can be anywhere across the solar system – e.g. does not have to "go through" the Sun or the Earth. But they have to be in a straight line – Lined Up.
- A Triple that goes through the Sun has less 'power'.
- The to be used 'difference in degrees' has to be estimated by a large scale program. With these differences we have a good result:
  - Opposition across the Sun: 3.5 to 4 degrees to each side from the midpoint.
  - Conjunction and the Sun: 3.5 to 4 degrees to each side from the midpoint.
  - Triple Line Up: 3.5 to 4 degrees to each side from the midpoint.



**Figure 2:** Here you see a combination from a conjunction, 2 oppositions and a 3 planet resonance (Triple Line Up). On the right Earth and Mars in conjunction. Opposition Earth – Venus, and opposition Mars – Venus. They are also in a 3 planet resonance. A sunspot will be formed if it is not at the low of the eleven year polar field strength cycle.

## V. Planetary Alignment Theory

- The Sun sends charged particles within the solar wind, this ‘loads’ the planets ‘up’. We include Pluto as a planet because the calculations show a huge effect from Pluto on the Sun.
- The moon has no magnetic field, but has a big difference in polarity between the side that is looking to the Sun and the side looking away from the Sun.
- When planets align...they send a kind of radio signal, probably a GSM-like signal.
- This radio signal is taken up by the magnetic field of the Sun and then made stronger, just like a GSM signal is made stronger when it reaches your apparatus.
- The portals that connect the Earth with the Sun are overwhelming proof of this principle.

## VI. Creation Of Sunspots

- A 3 planet resonance or Triple Line Up induces magnetic changes in the Sun.
- Shortly after or during the creation of the Triple(s), the theory requires an opposition across the Sun or conjunction and the Sun. A planet or planetoid from the Triple needs to be in the opposition or conjunction. This way the magnetic changes create a sunspot.
- If a 3 planet resonance Triple has the 2 planets from the opposition or conjunction in it, then a large sunspot can be created.
- Long Line Ups with the planet(s) or planetoid(s) that is (are) in the Triple and opposition or conjunction, before the creation of the sunspot, create sunspots with large flare potential.
- Planetoids in the combination require more time to form a sunspot.
- Three Triples can also create a sunspot if a Triple has 2 planets that are in the other Triples.
- Planets have memories. Especially Mercury and Venus. They can carry codes from previous Line Ups to the creation code.
- Remark: The end of long Line Ups (long Triples, long oppositions across the Sun, long conjunctions and the Sun), can trigger the creation of short lived sunspots.
- Second Remark: The end of long Line Ups (long Triples, long oppositions across the Sun, long conjunctions and the Sun), can trigger the creation of long and strong sunspots, if they end on the day another important Line Up starts...
- A long opposition or conjunction of planetoids can create several sunspots. The Triple(s) formation may start after the opposition or conjunction.

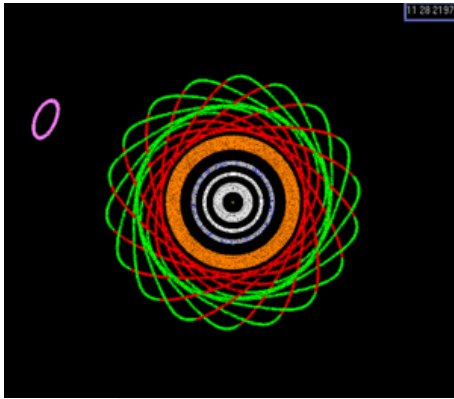
## VII. Why The Planetoids?

We give 2 examples:

### Pallas

Pallas is in a near -1:1 mean-motion orbital resonance with Ceres. Pallas also has a near-18:7 resonance (6500-year period) and an approximate 5:2 resonance (83-year period) with Jupiter.

Courtesy: Wikipedia



**Figure 3:** Depiction of asteroid Pallas 18:7 near resonance with Jupiter in a rotating frame . Jupiter (pink loop at upper left) is held nearly stationary. The shift in Pallas' orbital alignment relative to Jupiter increases steadily over time; it never reverses course (i.e., there is no libration).

### Chiron

Chiron is a body in transition, due to phase locking with both Saturn and Uranus. Its orbital period is a close match to the 7:12 resonance with Saturn and the 5:3 resonance with Uranus. It is engaged in a slow, but chaotic exchange of angular momentum involving Saturn and Uranus over a 50.42 year cycle at present. Chiron spends some of this cycle inside the orbit of Saturn, much as Pluto-Charon do inside Neptune's orbit at perihelion. In addition, Chiron accomplishes two orbital crossings of Saturn's orbit in each complete orbit. At aphelion, it approaches very close to the orbit of Uranus. This 50.42 year period of Chiron is not an exact discrete relation to either planetary resonance, but it is close enough, and the orbit is eccentric enough to allow for radical change caused by either a too close approach to Uranus or Saturn (ref. 12).

## VIII. Single, Double and Multiple Sunspots

- A Single sunspot will be created by one Triple in relationship with an opposition or conjunction. Remark: The other planet or planetoid from the opposition or conjunction may not be in any other Line Up. Example: Sunspot 2061 from May 9, 2014. Triple Line Up Uranus – Venus – Vesta combines with opposition Venus – Mercury from May 9 – 10, 2014. Mercury is in no other Line Ups. This creates a single sunspot...
- A Double sunspot will be created if there are more line ups in the opposition or conjunction. Example: Sunspot 2062 from May 10, 2014: Triple Line Up Mars – Venus – Earth combines with opposition Juno – Mars. Juno is also in other Line Ups... And this creates a Double sunspot.

## IX. Complexity Of the Sunspots

- Complex sunspots are created by combinations with Mercury and Venus.
- Example: Long triple Line Up: Pluto - Jupiter – Venus in combination with an opposition across the Sun with Venus.
- The more planets in the creation code, the more complex a sunspot can become.
- Lesser magnetically complex sunspots are created with following combinations:
  - Planetoids in the combinations (The used planetoids: Vesta, Ceres, Chiron, Juno, Pallas). Example: Triple Line Up Vesta – Ceres – Juno or Earth – Juno – Mars.
  - Outer planets in combinations. Example: Triple Line Up Uranus – Neptune - Mars

## X. Sunspot Creation Code

- The alignments on the day of sunspot creation induce an electro-magnetic code in the sunspot from the planets and planetoids that are in the creation code.
- This electro-magnetic code is unique for each sunspot.

## XI. Growth And Regrowth Potential From The Sunspot

- The duration from the Line Ups (Triple Line Ups, Oppositions or Conjunctions) from the creation code is important. The longer they last, the bigger the sunspot will grow.
- After the Line Ups from the creation code have ended, sunspots can grow again if there are planetary Line Ups with planets from the creation code. Example: Long Triple with 3 planets from the creation code, 2 weeks after the Line Ups from the creation code have ended and the sunspot still exists. Another example: A long opposition across the sun with 2 planets from the creation code can also regrow the sunspot.
- The more times a planet is in the creation code, the stronger the sunspot will react on Line Ups with this planet in it.
- Extra sunspot growth will be delivered if there are several Triples, Oppositions, and/or Conjunctions at the same time.
- Venus or Mercury in the Line Ups (and creation code) will make sunspots grow faster and more powerful.
- Regrowth will be stronger if a planet is also in other Triples... Example sunspot 2049 = old 1928 from December 16, 2013. It reacts to this Triple... May 1 – 13, 2014: Triple Line Up Uranus – Venus – Ceres... And to this conjunction... April 27 – May 6, 2014: Conjunction Vesta – Ceres and the Sun. But Venus was also in other Triples... Venus was made 'stronger' until May 3 by: April 26 – May 3, 2014: Triple Line Up Venus – Saturn – Juno and Venus was also made stronger by this Triple... May 2 – 3, 2014: Triple Line Up Mercury – Venus – Pluto.
- When a sunspot could react on a full line up and no others could, then this activates the sunspot and decreases or deactivates others.
- When 2 or more sunspots could react on the same line up, only one will react. At least one will die completely.

## XII. Flare Potential From The Sunspot

**Sunspots seem to have their own will. They flare without a known principle. However, planetary alignments create certain magnetic inductions in sunspots. These inductions do not only create the sunspots – but also their memory. With this principle we can calculate how and when sunspots will react on new alignments (note: not all reactions are known).**

- Sunspots can be created by a combination from planets only (1), planetoids only (2) or a combination from planets and planetoids (3).
- Sunspots will only react on planets and planetoids that are in the creation code.
- A flare will be induced if we have 3 different Line Ups at the same time, created after the creation code, with the creation code in it. These can be any combination from Triple Line Ups, Conjunctions or Oppositions.
- In case of (1): 3 planets from the creation code in 3 different Line Ups. Example: Mars, Venus and Mercury are in the creation code. On the same time we have a conjunction and the Sun with Mars, a Triple with Mercury and a Triple with Venus: High chance of a flare! Also 3 Triples can induce a flare, or 2 oppositions across the Sun with a Triple, etcetera.
- In case of (2): 3 planetoids from the creation code in 3 different Line Ups. Same as previous.
- In case of (3): A combination from planets and planetoids with a total from 3, that appear in 3 different Line Ups. Example: Pluto, Jupiter and Vesta are in the creation code. On the same time we have an opposition across the Sun with Mercury, a Triple with Vesta and a Triple with Jupiter: High chance of a flare!
- The end of Line Ups (long Triples, long oppositions or conjunctions) with a duration from more than 5 days, can also trigger a large flare, especially with Mercury or Venus in it.
- Note: High sunspot quantity is irrelevant to X flares.
- Solar flux measurements are irrelevant to X flares.

## EXAMPLE OF A REPORT

Sunspot / February 21, 2015 / Hemisphere

February 21, 2015 (05:00)

Strong sunspot!

Strong growth potential and strong flare reactions possible. 2 Triples in opposition ending + Triple lasting longer then opposition...

February 16 (10:30) – 25 (04:30), 2015: Triple Line Up Mercury – Jupiter – Vesta

February 17 (15:30) – 22 (01:00), 2015: Triple Line Up Mercury - Juno - Earth

February 20 (16:30) – 23 (19:00), 2015: Triple Line Up Venus - Mars – Earth

February 17 (15:30) – 22 (01:00), 2015: Triple Line Up Mercury - Juno - Earth

February 20 (16:30) – 23 (19:00), 2015: Triple Line Up Venus - Mars - Earth

February 21 (05:00) – 24 (02:30), 2015: Opposition Mercury – Venus across the Sun

Mercury

Venus

Jupiter

Mars

Earth

Juno

Vesta

Sunspots could react to these line ups:

**Red:** Full code could have effect

**Blue:** Not all the planets or planetoids in code, but **RED** ones could have effect...

**Purple:** End of line up: Effect possible by strong or long Line Up. The effect could last up to 2 days...

**Line Ups before and during formation sunspot:**

February 6 (01:00) – 15 (23:30), 2015: Triple Line Up Juno – Mars - Neptune

February 8 (07:00) - 17 (10:30), 2015: Triple Line Up Pluto – Venus – **Vesta**

February 10 (07:30)- 20 (20:30), 2015: Triple Line Up Pluto – Ceres – **Earth**

February 10 (11:30) – 16 (16:30), 2015: Conjunction Mars – Uranus and the Sun

February 12 (11:15)- 15 (12:30), 2015: Triple Line Up Mercury – Mars - Uranus

February 13 (16:30)- 14 (19:30), 2015: Opposition Mercury – Uranus across the Sun

February 13 (17:00) - 15 (01:30), 2015: Opposition Mercury - Mars across the Sun

February 16 (10:00) – March 5 (06:00), 2015: Conjunction Saturn – Pallas and the Sun

February 21: There was a massive KILLER solar flare on the farside!

### HUGE Solar Blast - 'Killshot' will Miss Earth | SO News February 22, 2015

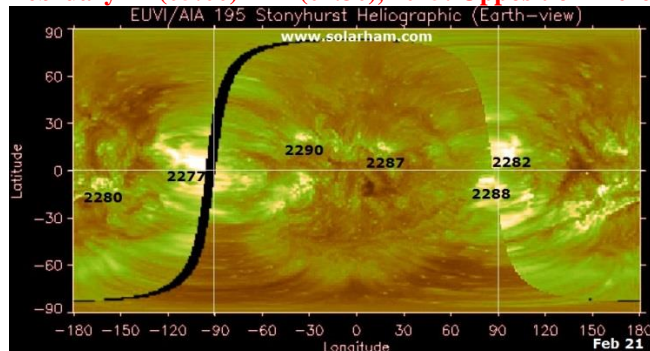
[https://www.youtube.com/watch?v=Ze3mwO7N-KQ&list=PLHSoxioQtwZeQaRnO5\\_9AJB2RmevUpuPT](https://www.youtube.com/watch?v=Ze3mwO7N-KQ&list=PLHSoxioQtwZeQaRnO5_9AJB2RmevUpuPT)

February 16 (10:30) – 25 (04:30), 2015: Triple Line Up Mercury – Jupiter - Vesta

February 17 (15:30) – 22 (01:00), 2015: Triple Line Up Mercury - Juno - Earth

February 20 (16:30) – 23 (19:00), 2015: Triple Line Up Venus - Mars - Earth

February 21 (05:00) – 24 (02:30), 2015: Opposition Mercury – Venus across the Sun



February 22:

**February 16 (10:30) – 25 (04:30), 2015: Triple Line Up Mercury – Jupiter - Vesta**  
**February 17 (15:30) – 22 (01:00), 2015: Triple Line Up Mercury - Juno - Earth**  
**February 20 (16:30) – 23 (19:00), 2015: Triple Line Up Venus - Mars - Earth**  
**February 21 (05:00) – 24 (02:30), 2015: Opposition Mercury – Venus across the Sun**

February 23:

**February 16 (10:30) – 25 (04:30), 2015: Triple Line Up Mercury – Jupiter - Vesta**  
**February 20 (16:30) – 23 (19:00), 2015: Triple Line Up Venus - Mars - Earth**  
**February 21 (05:00) – 24 (02:30), 2015: Opposition Mercury – Venus across the Sun**  
**February 23 (20:30) – March 2 (6:00), 2015: Triple Line Up Jupiter - Vesta - Earth**

February 24:

**February 16 (10:30) – 25 (04:30), 2015: Triple Line Up Mercury – Jupiter - Vesta**  
**February 21 (05:00) – 24 (02:30), 2015: Opposition Mercury – Venus across the Sun**  
**February 23 (20:30) – March 2 (6:00), 2015: Triple Line Up Jupiter - Vesta - Earth**  
**February 24 (05:00) – 28 (05:00), 2015: Opposition Earth – Neptune across the Sun**  
**February 24 (18:30) – March 9 (15:00), 2015: Triple Line Up Venus – Neptune - Juno**

February 25:

**February 16 (10:30) – 25 (04:30), 2015: Triple Line Up Mercury – Jupiter - Vesta**  
**February 23 (20:30) – March 2 (6:00), 2015: Triple Line Up Jupiter - Vesta - Earth**  
**February 24 (05:00) – 28 (05:00), 2015: Opposition Earth – Neptune across the Sun**  
**February 24 (18:30) – March 9 (15:00), 2015: Triple Line Up Venus – Neptune - Juno**  
**February 25 (00:30) – March 9 (11:00), 2015: Triple Line Up Saturn – Pallas - Mercury**

February 26:

**February 23 (20:30) – March 2 (6:00), 2015: Triple Line Up Jupiter - Vesta - Earth**  
**February 24 (05:00) – 28 (05:00), 2015: Opposition Earth – Neptune across the Sun**  
**February 24 (18:30) – March 9 (15:00), 2015: Triple Line Up Venus – Neptune - Juno**  
**February 25 (00:30) – March 9 (11:00), 2015: Triple Line Up Saturn – Pallas - Mercury**  
**February 26 (04:30) – March 5 (12:00), 2015: Triple Line Up Saturn – Pallas - Venus**

February 27:

**February 23 (20:30) – March 2 (6:00), 2015: Triple Line Up Jupiter - Vesta - Earth**  
**February 24 (05:00) – 28 (05:00), 2015: Opposition Earth – Neptune across the Sun**  
**February 24 (18:30) – March 9 (15:00), 2015: Triple Line Up Venus – Neptune - Juno**  
**February 25 (00:30) – March 9 (11:00), 2015: Triple Line Up Saturn – Pallas - Mercury**  
**February 26 (04:30) – March 5 (12:00), 2015: Triple Line Up Saturn – Pallas - Venus**  
**February 27 (11:30) – 28 (20:30), 2015: Conjunction Mercury – Saturn and the Sun**  
**February 27 (18:30) - 28 (23:30), 2015: Conjunction Mercury – Pallas and the Sun**

February 28:

**February 23 (20:30) – March 2 (6:00), 2015: Triple Line Up Jupiter - Vesta - Earth**  
**February 24 (05:00) – 28 (05:00), 2015: Opposition Earth – Neptune across the Sun**  
**February 24 (18:30) – March 9 (15:00), 2015: Triple Line Up Venus – Neptune - Juno**  
**February 25 (00:30) – March 9 (11:00), 2015: Triple Line Up Saturn – Pallas - Mercury**  
**February 26 (04:30) – March 5 (12:00), 2015: Triple Line Up Saturn – Pallas - Venus**  
**February 27 (11:30) – 28 (20:30), 2015: Conjunction Mercury – Saturn and the Sun**  
**February 27 (18:30) - 28 (23:30), 2015: Conjunction Mercury – Pallas and the Sun**  
**February 28 (07:30) – March 3 (09:00), 2015: Triple Line Up Jupiter - Mercury - Earth**  
**February 28 (20:00) – March 11 (01:30), 2015: Triple Line Up Juno – Mars - Chiron**

March 1:

**February 23 (20:30) – March 2 (6:00), 2015: Triple Line Up Jupiter - Vesta - Earth**  
**February 24 (18:30) – March 9 (15:00), 2015: Triple Line Up Venus – Neptune - Juno**  
**February 25 (00:30) – March 9 (11:00), 2015: Triple Line Up Saturn – Pallas - Mercury**  
**February 26 (04:30) – March 5 (12:00), 2015: Triple Line Up Saturn – Pallas - Venus**  
**February 28 (07:30) – March 3 (09:00), 2015: Triple Line Up Jupiter - Mercury - Earth**

February 28 (20:00) – March 11 (01:30), 2015: Triple Line Up **Juno – Mars - Chiron**  
March 1 (06:00) – 2 (02:00), 2015: Triple Line Up **Mercury – Venus - Saturn**  
March 1 (10:00) – 3 (02:00), 2015: Triple Line Up **Mercury - Venus - Pallas**

March 2:

February 24 (18:30) – March 9 (15:00), 2015: Triple Line Up **Venus – Neptune - Juno**  
February 25 (00:30) – March 9 (11:00), 2015: Triple Line Up **Saturn – Pallas - Mercury**  
February 26 (04:30) – March 5 (12:00), 2015: Triple Line Up **Saturn – Pallas - Venus**  
**February 28 (07:30) – March 3 (09:00), 2015: Triple Line Up Jupiter - Mercury - Earth**  
February 28 (20:00) – March 11 (01:30), 2015: Triple Line Up **Juno – Mars - Chiron**  
March 1 (10:00) – 3 (02:00), 2015: Triple Line Up **Mercury - Venus - Pallas**  
**March 2 (01:00) – 13 (19:00), 2015: Conjunction Jupiter - Juno and the Sun**  
**March 2 (12:30) – 5 (22:30), 2015: Triple Line Up Vesta - Mercury - Earth**

## **Sunspot Formation August 2014**

Best sunspot site: <http://www.solen.info/solar/>

On the backside (this is plus minus 2 days!) <http://www.solarham.net/farside.htm>

**Sunspot S 3696 / August 1 / Southern Hemisphere**

**August 1 (06:00)**

**July 31 (02:30) – August 1 (19:00), 2014: Triple Line Up Mercury – Venus – Vesta**

**August 1 (06:00) – 5 (00:30), 2014: Opposition Venus - Mars**

**Mercury**

**Venus**

**Vesta**



## Mars

Remark: Emerged on August 1 as S3696

**Expected time: August 1 around 06:00**

August 1 03:00 Very tiny point visible

August 1 06:00 2 tiny points visible

August 1 11:00 Good visible

Unremarkable / See full report

Sunspot 2133 (rotated into view August 1) / July? / Farside/ Northern Hemisphere.

Unremarkable / See full report

Sunspot 2134 (rotated partially into view August 1) = old Sunspot 2113 (rotated into view July 6) / June 23 - 27 / Farside/ Northern Hemisphere.

See full report

August 2 (07:30)

Limited flare (max. moderate M) reactions possible 'Low Magnetic Footprint.'

July 25 (23:30) – August 2 (07:30), 2014: Triple Line Up Saturn – Ceres – Venus

**Activated sunspot 2132**

Sunspot 2142 (rotated into view August 13) / August 2 / Farside/ Northern Hemisphere.

Growth potential but limited flare reactions possible 'Moderate Magnetic Footprint. No Triple in conjunction / opposition ending.'

August 2 (13:30)

July 29 (05:30) – August 3 (07:30), 2014: Triple Line Up Ceres – Mercury – Saturn?

August 1 (16:30) – 8 (13:00), 2014: Triple Line Up Mercury – Venus – Juno

August 1 (23:00) – 3 (16:00), 2014: Triple Line Up Mercury – Jupiter – Earth

August 2 (13:30) - 3 (05:00), 2014: Opposition Mercury – Pluto

Jupiter

Saturn?

Venus

Mercury

Pluto

Earth

Ceres?

Juno

Remark: Triple Line up July 29 (05:30) – August 3 (07:30), 2014: Triple Line Up Ceres – Mercury – Saturn deactivated by: July 29 (03:00 – 19:00), 2014: Opposition Mercury – Mars across the Sun?

Unremarkable / See full report

August 3 (05:00)

Limited flare (max. moderate M) reactions possible 'Low Magnetic Footprint

August 2 (13:30) - 3 (05:00), 2014: Opposition Mercury – Pluto

**Sunspot on the Farside, no sunspot formation or unremarkable**

Sunspot 2136 / August 3/ Northern Hemisphere

August 3 (07:30)

Limited flare (max. moderate M) reactions possible 'Low Magnetic Footprint

July 29 (05:30) – August 3 (07:30), 2014: Triple Line Up Ceres – Mercury – Saturn

**Activated also sunspot 2132**

Unremarkable / See full report

August 3 (16:00)

Limited flare (max. moderate M) reactions possible 'Low Magnetic Footprint

**August 1 (23:00) – 3 (16:00), 2014: Triple Line Up Mercury – Jupiter – Earth**  
**Sunspot on the Farside, no sunspot formation or unremarkable**

**Sunspot 2139 (rotated into view August 10) / August 3 / Farside/ Northern Hemisphere.**

**August 3 (04:00)**

**July 22 (20:00) – August 10 (08:00), 2014: Opposition Pallas - Uranus**

**August 3 (04:00) – 15 (18:00), 2014: Triple Line Up Mars – Pallas – Neptune**

**Pallas**

**Mars**

**Uranus**

**Neptune**

**Unremarkable / See full report**

**Sunspot 2137 / August 5 / Southern Hemisphere**

**August 5 (00:30)**

**Limited flare (max. moderate M) reactions possible ‘Low Magnetic Footprint**

**August 1 (06:00) – 5 (00:30), 2014: Opposition Venus – Mars**

**Expected time: August 5 around 00:30**

**Remark: No far from limb, thus not so easy visible.**

**August 5 01:00 Very tiny point visible**

**August 5 02:00 2 tiny points visible**

**August 5 04:00 Good visible**

**Unremarkable / See full report**

**Sunspot 2135 / August 6 / Northern Hemisphere**

**August 4 (15:00) – 20 (14:00), 2014: Triple Line Up Ceres – Mercury – Juno**

**August 5 (00:30) – 11 (05:00), 2014: Triple Line Up Mercury – Venus – Ceres**

**August 6 (00:00 – 15:30), 2014: Conjunction Mercury – Jupiter**

**Mercury**

**Jupiter**

**Ceres**

**Venus**

**Juno**

**Expected time: August 6 around 00:00**

**Remark: On the limb, thus not so easy visible...**

**August 6 04:00 Very tiny point visible**

**August 6 07:00 2 tiny points visible**

**August 6 10:00 Good visible**

**Desactivated because off sunspot 2144? / See full report**

**August 6 15:30**

**Limited flare (max. moderate M) reactions possible ‘Low Magnetic Footprint**

**August 6 (00:00 – 15:30), 2014: Conjunction Mercury – Jupiter**

**Sunspot on the Farside, no sunspot formation or unremarkable**

**August 7 Sunspot on the Limb! Sunspot 2150 (rotated into view August 22) / August 7 & 9 / Farside / Southern Hemisphere.**

**August 3 (22:00) – 9 (14:00), 2014: Triple Line Up Ceres – Venus – Juno**

**August 7 (09:30) – 22 (19:00), 2014: Conjunction Saturn – Ceres**

**Venus**

**Saturn**

**Ceres**

**Juno**

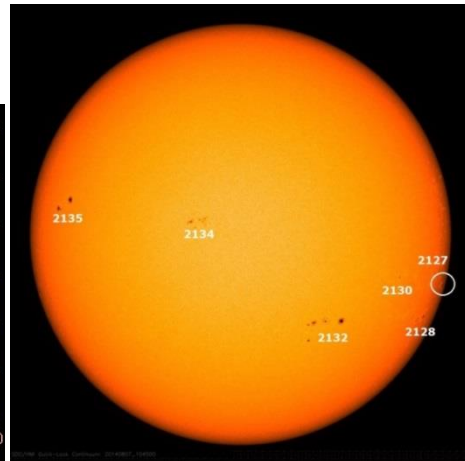
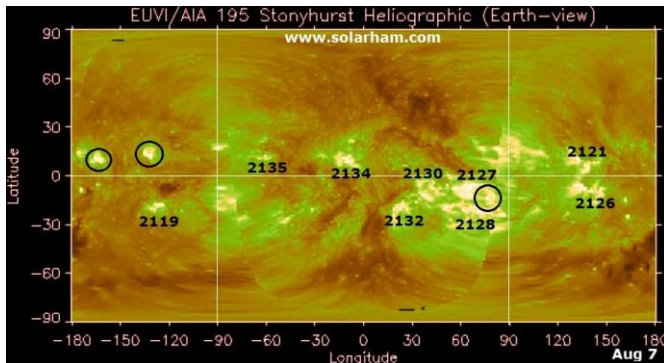
**Expected time: August 7 around 09:30**

**Remark: On the limb, thus not so easy visible. But! Earlier visible because Ceres & Juno in the Triple Ceres – Venus – Juno where activated by August 4 (15:00) – 20 (14:00), 2014: Triple Line Up Ceres – Mercury – Juno**

**August 6 20:00 Very tiny point visible**

**August 7 00:00 2 tiny points visible**

August 7 02:00 Good visible



Sunspot 2140 / August 8 / Northern Hemisphere

August 8 (05:00)

Growth potential but limited flare (max. moderate M) reactions possible 'Low Magnetic Footprint.'

August 1 (16:30) – 8 (13:00), 2014: Triple Line Up Mercury – Venus – Juno

August 8 (05:00) – 9 (03:00), 2014: Opposition Mercury – Earth

Mercury

Venus

Earth

Juno

Unremarkable / See full report

Sunspot 2143 (rotated into view August 13) / August 9 / Farside/ Southern Hemisphere.

August 9 (03:00)

Limited flare (max. moderate M) reactions possible 'Low Magnetic Footprint.'

August 8 (05:00) – 9 (03:00), 2014: Opposition Mercury – Earth

Unremarkable / See full report

August 9 (16:00) Sunspot 2150 (rotated into view August 22) / Merger August 7 & 9 / Farside / Southern Hemisphere.

August 7 (09:30) – 22 (19:00), 2014: Conjunction Saturn – Ceres

August 3 (22:00) – 9 (14:00), 2014: Triple Line Up Ceres – Venus – Juno

August 9 (16:00) – September 12 (02:00), 2014: Triple Line Up Saturn – Venus – Juno

Saturn

Venus

Juno

Ceres

See full report

August 10 (08:00)

Limited flare (max. moderate M) reactions possible 'Low Magnetic Footprint.'

July 22 (20:00) – August 10 (08:00), 2014: Opposition Pallas – Uranus

Sunspot on the Farside, no sunspot formation or unremarkable

Sunspot 2139 (rotated into view August 10) / August 3 / Farside/ Northern Hemisphere.

See full report

Sunspot 2144 / August 11 / Southern Hemisphere.

Formation of unusual sunspot?

August 4 (15:00) – 20 (14:00), 2014: Triple Line Up Ceres – Mercury – Juno

August 5 (00:30) – 11 (05:00), 2014: Triple Line Up Mercury – Venus – Ceres

August 7 (09:30) – 22 (19:00), 2014: Conjunction Saturn – Ceres and the Sun

August 9 (16:00) – September 12 (02:00), 2014: Triple Line Up Saturn – Venus – Juno

Ceres: 2 times in Triples

**Mercury: 2 times in Triples**

**Venus: 2 times in Triples**

**Juno: 2 times in Triples**

**Saturn is combined with Ceres**

**Activated by August 14 (03:00) – 15 (00:30), 2014: Opposition Mercury – Chiron and end August 3 (04:00) – 15 (18:00), 2014: Triple Line Up Mars – Pallas - Neptune**

**X flare on August 28? See full report**

**Sunspot 2138 / August 11 / Northern Hemisphere**

**August 11 around 05:00**

**Growth potential but limited flare (max. moderate M) reactions possible ‘Low Magnetic Footprint.’**

**August 5 (00:30) – 11 (05:00), 2014: Triple Line Up Mercury – Venus – Ceres**

**August 7 (09:30) – 22 (19:00), 2014: Conjunction Saturn – Ceres**

**Mercury**

**Venus**

**Saturn**

**Ceres**

**Expected time: August 11 around 05:00 / Remark: Close to the limb...**

**August 11 03:00 Very tiny point visible**

**August 11 04:00 2 tiny points visible**

**August 11 05:30 Good visible**

**Desactivated because off sunspot 2144? / See full report**

**August 12**

**August 12 (04:30) - 13 (01:00), 2014: Opposition Mercury – Neptune**

**UNUSED**

**Sunspot 2141 (rotated into view August 13) / August 13**

**/ Farside – Limb / Northern Hemisphere.**

**August 13 (01:00)**

**Limited flare (max. moderate M) reactions possible ‘Low Magnetic Footprint.’**

**August 12 (04:30) - 13 (01:00), 2014: Opposition Mercury – Neptune**

**Unremarkable / See full report**

**Sunspot 2142 (rotated into view August 13) / August 2 / Farside/ Northern Hemisphere**

**Unremarkable / See full report**

**August 14**

**August 14 (03:00) – 15 (00:30), 2014: Opposition Mercury – Chiron**

**UNUSED**

**August 15 (00:30)**

**Limited flare (max. moderate M) reactions possible ‘Low Magnetic Footprint.’**

**August 14 (03:00) – 15 (00:30), 2014: Opposition Mercury – Chiron**

**Sunspot on the Farside, no sunspot formation or unremarkable**

**Sunspot 2145 / August 15 / Southern Hemisphere.**

**August 15 around 07:00**

**Limited flare (max. moderate M) reactions possible ‘Low Magnetic Footprint.’**

**July 19 (06:00) – August 15 (07:00), 2014: Triple Line Up Pluto – Jupiter – Vesta**

**Expected time: August 15 around 07:00**

**August 14 23:45 Very tiny point visible**

**August 15 02:30 2 tiny points visible**

**August 15 05:30 Good visible**

**Unremarkable / See full report**

**Sunspot 2146 (rotated into view August 15) = old Sunspot 2121 (rotated into view July 21) / July 13 / Farside/ Northern Hemisphere.**

**Very good example from reaction to new Triple! / See full report**

**August 15 (18:00)**

Limited flare (max. moderate M) reactions possible 'Low Magnetic Footprint.'  
August 3 (04:00) – 15 (18:00), 2014: Triple Line Up Mars – Pallas - Neptune  
**Sunspot on the Farside, no sunspot formation or unremarkable**

Sunspot 2147 (rotated into view August 16 – 17) = old Sunspot 2126 / July 24, 2014/ Southern Hemisphere  
Unremarkable / See full report

Sunspot 2149 (rotated into view August 21) / August 17 / Farside/ Northern Hemisphere.  
Growth potential but limited flare reactions possible 'Low Magnetic Footprint.'  
August 16 (16:00) – 19 (16:30), 2014: Triple Line Up Venus – Jupiter - Earth  
August 17 (15:00) – 20 (02:00), 2014: Opposition Venus - Pluto  
Venus  
Jupiter  
Earth  
Pluto  
Very interesting sunspot to see the Line Ups work.... / See full report  
August 18

August 18 (02:00) – 20 (06:00), 2014: Triple Line Up Mercury – Earth – Neptune  
UNUSED

Sunspot 2148 / August 19/ Northern Hemisphere  
August 19 (16:30)  
Limited flare (max. moderate M) reactions possible 'Low Magnetic Footprint.'  
August 16 (16:00) – 19 (16:30), 2014: Triple Line Up Venus – Jupiter - Earth  
**Expected time: August 19 around 16:30**  
**Remark: Close to the limb**  
August 19 08:00 Very tiny point visible  
August 19 13:00 2 tiny points visible  
August 19 16:00 Good visible  
**Remark: Earlier visible because Venus & Earth are in strong Triples!**  
C 6.6 flare / See full report

August 20 (02:00)  
Limited flare (max. moderate M) reactions possible 'Low Magnetic Footprint.'  
August 17 (15:00) – 20 (02:00), 2014: Opposition Venus - Pluto  
**Sunspot on the Farside, no sunspot formation or unremarkable**

August 20 (06:00)  
Limited flare (max. moderate M) reactions possible 'Low Magnetic Footprint.'  
August 18 (02:00) – 20 (06:00), 2014: Triple Line Up Mercury – Earth – Neptune  
**Sunspot on the Farside, no sunspot formation or unremarkable**

Overtook sunspot 2130 = renamed 2151?  
August 20 09:30  
Limited flare (max. moderate M) reactions possible 'Low Magnetic Footprint.'  
August 4 (15:00) – 20 (14:00), 2014: Triple Line Up Ceres – Mercury – Juno  
August 7 (09:30) – 22 (19:00), 2014: Conjunction Saturn – Ceres  
Saturn  
Mercury  
Juno  
Ceres

Sunspot 2158 (rotated into view September 4) / August 21 / On the Farside limb / Northern Hemisphere.  
August 21 (05:30)  
August 18 (14:00) - 21 (07:30), 2014: Triple Line Up Mercury – Venus - Vesta  
August 19 (00:00) – 23 (18:00), 2014: Triple Line Up Pluto – Mercury – Mars  
August 21 (05:30) – 22 (08:00), 2014: Opposition Mercury – Uranus  
Mercury  
Venus

Pluto  
Mars  
Uranus  
Vesta

**Remark: Strong sunspot / X flare on Farside? / See full report**

August 21 ( 07 : 30 )

Limited flare (max. moderate M) reactions possible 'Low Magnetic Footprint.'

August 18 ( 14 : 00 ) - 21 ( 07 : 30 ) , 2014: Triple Line Up Mercury – Venus - Vesta

**Sunspot on the Farside, no sunspot formation or unremarkable**

August 22 (08:00)

Limited flare (max. moderate M) reactions possible 'Low Magnetic Footprint.'

August 21 (05:30) – 22 (08:00), 2014: Opposition Mercury – Uranus

**Sunspot on the Farside, no sunspot formation or unremarkable**

Sunspot 2153 / August 26 / Southern Hemisphere.

**Remark: Triple Line Up Mars - Saturn – Earth went first in Sunspot 2146 and reemerged**

August 22 (17:30)

Limited flare (max. moderate M) reactions possible 'Low Magnetic Footprint.'

August 7 (09:30) – 22 (19:00), 2014: Conjunction Saturn – Ceres

August 22 (17:30) – 28 (21:00), 2014: Triple Line Up Mars - Saturn – Earth

**Important sunspot that gives proof for reactions on new alignments...**

**See full report**

Sunspot 2150 (rotated into view August 22) / August 7 & 9 / Farside / Southern Hemisphere.

See full report

S3759

August 23 Probably emerged as S3759

August 22 (15:00) – 23 (15:00), 2014: Conjunction Mercury - Pallas

August 23 (10:30) – 25 (17:30), 2014: Triple Line Up Mercury – Earth – Chiron

Mercury

Earth

Chiron

Pallas

**Expected time: August 23 around 10:30**

August 23 08:00 Very tiny point visible

August 23 09:30 2 tiny points visible

August 23 11:30 Good visible

Unremarkable/ No report

Sunspot 2151 (rotated into view August 22) = old Sunspot 2130 (rotated into view July 28) / July 28 / Farside/ Southern Hemisphere.

See full report

August 23 (15:00)

Limited flare (max. moderate M) reactions possible 'Low Magnetic Footprint.'

August 22 (15:00) – 23 (15:00), 2014: Conjunction Mercury - Pallas

**Sunspot on the Farside, no sunspot formation or unremarkable**

August 23 (18:00)

Limited flare (max. moderate M) reactions possible 'Low Magnetic Footprint.'

August 19 (00:00) – 23 (18:00), 2014: Triple Line Up Pluto – Mercury – Mars

**Sunspot on the Farside, no sunspot formation or unremarkable**

August 25 (17:30)

Limited flare (max. moderate M) reactions possible 'Low Magnetic Footprint.'

**August 23 (10:30) – 25 (17:30), 2014: Triple Line Up Mercury – Earth – Chiron**  
**Sunspot on the Farside, no sunspot formation or unremarkable**

**Sunspot 2152 (rotated into view August 26) = old Sunspot 2132 / July 30 / Southern Hemisphere.**  
**See full report**

**Sunspot 2153 / August 26 / Southern Hemisphere.**

**Remark: Triple Line Up Mars - Saturn – Earth went first in Sunspot 2146 and reemerged**  
**Important sunspot that gives proof for reactions on new alignments...**  
**See full report**

**Sunspot 2159 (rotated into view September 5) / August 27 / On the Farside / Southern Hemisphere.**  
**August 27 (13:30)**

**August 26 (07:00) - September 2 (19:00), 2014: Triple Line Up Pluto – Juno - Earth**

**August 27 (13:30) – 31 (15:00), 2014: Conjunction Earth – Neptune**

**Pluto**

**Neptune**

**Earth**

**Juno**

**See full report**

**August 28 (06:30) – September 9 (19:00), 2014: Triple Line Up Uranus – Mercury – Pallas**  
**Unused**

**August 28 (21:00)**

**Limited flare (max. moderate M) reactions possible ‘Low Magnetic Footprint.’**

**August 22 (17:30) – 28 (21:00), 2014: Triple Line Up Mars - Saturn – Earth**

**Sunspot 2157 (rotated into view September 3) / August 31 / Southern Hemisphere.**

**See full report**

**August 31 (14:30)**

**August 29 (12:00) – September 2 (18:00), 2014: Triple Line Up Pluto – Venus – Mars**

**August 31 (14:30) – September 2 (20:00), 2014: Conjunction Venus – Jupiter**

**Venus**

**Pluto**

**Jupiter**

**Mars**

**X flare on September 1? See full report**

**August 31 (15:00)**

**Limited flare (max. moderate M) reactions possible ‘Low Magnetic Footprint.’**

**August 27 (13:30) – 31 (15:00), 2014: Conjunction Earth – Neptune**

## Planetary Alignments May 2014 February 2016

Remark: Slight adjustments to the calculated alignments are possible.

### Used Program

Astrolog. <http://www.astrolog.org/astrolog/astfile.htm>

How does it work? Go to Setting/ Restrictions: Restrict everything except the planets and the dwarf planets.

Go to Setting/ Aspect Settings: Restrict Square/ Trine/ Sextile

To calculate the Triple Line Ups

Go to Setting/ Calculation Settings

Fill in the name of the planet: Mercury, Venus, Mars....

To start: Go to Animate

Other calculations:

At Setting

1) Heliocentric: Conjunctions and oppositions

2) Sidereal Zodiac: Triple Line Ups with the Earth

May 1 (starts: 20:00) – 12 (15:00), 2014: Triple Line Up Pluto – Vesta - Pallas

May 1 (starts 04:00) - 13, 2014 (16:00): Triple Line Up Juno - Uranus - Pallas

May 2 (starts 03:00 – 3 (ends 23:00), 2014: Triple Line Up Mercury – Earth – Saturn

May 2 (starts 15:00) – 3 (ends 23:30), 2014: Triple Line Up Mercury – Venus - Pluto

May 5 - 7, 2014: Opposition Venus - Jupiter across the Sun

May 6, 2014: Opposition Mercury - Pluto across the Sun

May 7 – 8 (ends 18:30), 2014: Triple Line Up Mercury – Venus - Jupiter

May 8 (starts:19:00) - 9 (ends: 10:00), 2014: Conjunction Mercury - Jupiter and the Sun

May 8 (starts 20:30) - 12 (16:30), 2014: Conjunction Saturn – Earth and the Sun

May 9 (starts 09:00) – 17 (20:00), 2014: Triple Line Up Uranus – Venus - Vesta

May 9 (starts 16:00) – 10 (14:30), 2014: Opposition Venus - Mercury across the Sun

May 9 (starts: 19:30) – 12 (stops 23:45), 2014: Triple Line Up Venus – Earth – Mars

May 12 (starts 20:45) – 19 (18:30), 2014: Triple Line Up Chiron – Venus - Pallas

May 14 (starts 08:00) - 17 (17:00), 2014: Triple Line Up Venus – Earth – Uranus

May 15 starts: 16:00) – June 18 (12:00), 2014: Triple Line Up Vesta – Earth – Uranus

May 15 (starts 23:00) – 19 (stops 04:00), 2014: Triple Line Up Venus – Earth – Vesta

May 16 (starts 08:00) – 21 (21:30), 2014: Triple Line Up Venus – Mars– Uranus

May 16 (starts 03:00), 2014: Opposition Mercury – Neptune across the Sun

May 17 (23:00) - 18, 2014: Opposition Mercury - Chiron across the Sun

May 18 (starts 00:00) – 21 (05:15), 2014: Triple Line Up Venus – Earth - Ceres

May 21, 2014: Conjunction Mercury - Pallas and the Sun

May 22 (02:00) – 23 (16:00), 2014: Triple Line Up Venus – Mercury - Neptune

May 25 (00:00 -) – 26 (02:15), 2014: Opposition Mercury – Uranus across the Sun

May 25 (18:30) – 27 (10:00), 2014: Triple Line Up Chiron – Mercury - Venus

May 26 (01:30) – June 1 (05:00), 2014: Triple Line Up Saturn – Earth – Juno

May 27 (22:30) – 31 (06:00), 2014: Triple Line Up Ceres – Mercury – Juno

May 29 (05:30) – 30 (16:00), 2014: Triple Line Up Mercury – Pallas – Venus

May 29 (17:00) – June 3 (12:00), 2014: Triple Line Up Mars – Vesta – Venus



May 30 ( 02:00) – June 5 (01:00), 2014: Triple Line Up Vesta – Ceres – Venus  
May 30 (02:00) – June 3 (20:00), 2014: Triple Line Up Mars – Ceres – Venus  
May 30 (11:00) – June 2 (22:00), 2014: Triple Line Up Vesta – Mercury – Juno  
May 30 – June 23 (12:00), 2014: Triple Line Up Jupiter – Pluto - Mars  
May 30 (09:00) – June 1 (20:00) ,2014: Conjunction Venus – Neptune and the Sun  
May 31 (21:30) - June 2 (03:00), 2014: Conjunction Mercury - Ceres and the Sun  
June 1 (19:00) – 2 (22:30), 2014: Conjunction Mercury - Vesta and the Sun  
June 2 (07:00) – 3 (19:00), 2014: Opposition Mercury - Juno across the Sun  
June 4 (04:00)- 5 (07:30), 2014: Conjunction Mercury - Mars and the Sun  
June 4 (22:00) – 7 (08:00), 2014: Conjunction Venus - Chiron and the Sun  
June 5 (17:00) – 7 (01:00), 2014: Conjunction Mercury – Saturn and the Sun  
June 5 (22:00) – 8 (22:00), 2014: Triple Line Up Juno – Mercury - Mars  
June 6 (18:00) – 18 (23:00), 2014: Triple Line Up Earth – Pallas – Neptune  
June 7 (16:30) – 9 (15:00) , 2014: Triple Line Up Mercury – Venus – Uranus  
June 11 (04:00) – 18 (07:00), 2014: Conjunction Saturn - Mars and the Sun  
June 11 (13:00) – 15 (20:00), 2014: Triple Line Up Juno – Mercury – Saturn  
June 11 (13:00) – 14 (20:00), 2014: Triple Line Up Earth – Venus – Saturn  
June 16 (16:00) – 18 (15:00), 2014: Triple Line Up Mercury – Venus – Ceres  
June 16 (17:00) – 19 (17:00), 2014: Opposition Venus - Pallas across the Sun  
June 16 (20:00) – 24 (20:00), 2014: Triple Line Up Juno – Mars - Saturn  
June 17 (20:00) – 19 (20:00), 2014: Triple Line Up Mercury – Venus – Vesta  
June 18 (20:00) – 30, 2014 (22:00): Triple Line Up Earth – Mars - Uranus  
June 19 (08:30) – 20 (16:00), 2014: Conjunction Mercury – Earth and the Sun  
June 21 (04:00) – 23 (10:00), 2014: Triple Line Up Mercury – Venus – Mars  
June 23 (03:00) – 25 (14:00), 2014: Conjunction Venus - Uranus and the Sun  
June 24 (02:00) – 25 (13:00), 2014: Conjunction Mercury - Pluto and the Sun  
June 24 (08:00) – July 5 (05:00), 2014: Opposition Juno - Saturn across the Sun  
June 25 (17:00) – 27 (20:00), 2014: Triple Line Up Mercury – Venus – Saturn  
June 27 (12:00) – 30 (18:00), 2014: Triple Line Up Earth – Venus – Juno  
June 29 (11:00) – July 12 (12:00) , 2014: Triple Line Up Earth – Ceres – Vesta  
June 30 (00:00) – July 1 (07:00), 2014: Opposition Mercury – Jupiter across the Sun  
June 30 (04:00) – July 16 (17:00), 2014: Triple Line Up Pallas – Pluto - Ceres  
June 30 (23:00) - July 5 (10:00), 2014: Triple Line Up Saturn – Mars - Venus  
July 1 (14:00) – 8 (11:30), 2014: Triple Line Up Pallas - Venus – Uranus  
July 2 (07:00) – 6 (08:00), 2014: Conjunction Pluto – Earth and the Sun  
July 2 (12:00) – 12 (08:00), 2014: Triple Line Up Saturn – Vesta - Juno  
July 5 (13:30) – 7 (21:00), 2014: Triple Line Up Mercury – Venus – Juno  
July 6 (00:30) – 16 (02:00), 2014: Triple Line Up Earth – Chiron – Pallas  
July 7 (12:00) – 16 (21:00), 2014: Triple Line Up Earth – Mars - Ceres  
July 7 (18:00) – 18 (14:00), 2014: Conjunction Saturn – Vesta and the Sun  
July 7 (20:00) – 12 (01:00), 2014: Triple Line Up Mercury – Saturn – Mars  
July 9 (09:00) – 19 (22:00), 2014: Triple Line Up Earth – Mars - Vesta  
July 10 (07:30) – 11 (06:00), 2014: Conjunction Mercury – Neptune and the Sun  
July 12 (11:00) – 13 (10:00), 2014: Conjunction Mercury – Chiron and the Sun  
July 13 (08:00) – 16 (06:00), 2014: Opposition Venus - Ceres across the Sun  
July 13 (09:00) – 19 (03:30), 2014: Triple Line Up Saturn - Venus – Vesta  
July 16 (17:00) – 20 (04:00), 2014: Triple Line Up Mars - Venus - Juno  
July 17 (08:00) – 19 (21:00), 2014: Opposition Venus – Saturn across the Sun  
July 18 (18:00) – 30 (18:00), 2014: Triple Line Up Saturn – Ceres - Juno  
July 18 (01:00 – 21:00), 2014: Opposition Mercury – Pallas across the Sun  
July 18 (07:00) – 21 (9:30), 2014: Opposition Venus – Vesta across the Sun  
July 18 (16:00) – 19 (10:00), 2014: Conjunction Mercury – Uranus and the Sun  
July 19 (06:00) – August 15 (07:00), 2014: Triple Line Up Pluto – Jupiter – Vesta  
July 19 (13:30) – 23 (23:30), 2014: Triple Line Up Uranus – Mercury - Pallas  
July 20 (03:30) – 23 (20:00), 2014: Triple Line Up Saturn – Mercury – Vesta  
July 21 (01:00) – 23 (11:00), 2014: Triple Line Up Earth – Mercury – Pluto  
July 22 (08:00) – 24 (08:00), 2014: Triple Line Up Juno – Mercury - Mars  
July 22 (20:00) – August 10 (08:00), 2014: Opposition Pallas - Uranus across the Sun  
July 22 (14:00) – 27 (04:00), 2014: Opposition Jupiter – Earth across the Sun  
July 23 (08:00) – 25 (10:00), 2014: Conjunction Venus – Juno and the Sun

July 24 (21:00) – 25 (14:00), 2014: Opposition Mercury – Ceres across the Sun  
 July 25 (13:00) – 26 (03:30), 2014: Opposition Mercury – Saturn across the Sun  
 July 25 (23:30) – August 2 (07:30), 2014: Triple Line Up Saturn – Ceres - Venus  
 July 26 (04:00 – 21:00), 2014: Opposition Mercury – Vesta across the Sun  
 July 26 (06:30) – 27 (11:30) , 2014: Triple Line Up Venus – Mercury - Mars  
 July 26 (16:00) – 29 (21:00), 2014: Triple Line Up Earth – Venus – Pluto  
 July 26 (20:00) – 31 (04:00), 2014: Triple Line Up Juno – Venus – Vesta  
 July 27 (06:30 – 20:30), 2014: Conjunction Mercury - Juno and the Sun  
 July 28 (03:00 – 15:00), 2014: Conjunction Mercury - Venus and the Sun  
 July 29 (03:00 – 19:00), 2014: Opposition Mercury – Mars across the Sun  
 July 29 (05:30) – August 3 (07:30), 2014: Triple Line Up Ceres – Mercury – Saturn  
 July 29 (11:00) – 31 (21:00) , 2014: Triple Line Up Mercury – Juno – Vesta  
 July 31 (02:30) – August 1 (19:00), 2014: Triple Line Up Mercury – Venus – Vesta  
 August 1 (06:00) – 5 (00:30), 2014: Opposition Venus - Mars across the Sun  
 August 1 (16:30) – 8 (13:00), 2014: Triple Line Up Mercury – Venus – Juno  
 August 1 (23:00) – 3 (16:00), 2014: Triple Line Up Mercury – Jupiter – Earth  
 August 2 (13:30) - 3 (05:00), 2014: Opposition Mercury – Pluto across the Sun  
 August 3 (04:00) – 15 (18:00), 2014: Triple Line Up Mars – Pallas - Neptune  
 August 3 (22:00) – 9 (14:00), 2014: Triple Line Up Ceres – Venus – Juno  
 August 4 (15:00) – 20 (14:00), 2014: Triple Line Up Ceres – Mercury – Juno  
 August 5 (00:30) – 11 (05:00), 2014: Triple Line Up Mercury – Venus – Ceres  
 August 6 (00:00 – 15:30), 2014: Conjunction Mercury – Jupiter and the Sun  
 August 7 (09:30) – 22 (19:00), 2014: Conjunction Saturn – Ceres and the Sun  
 August 8 (05:00) – 9 (03:00), 2014: Opposition Mercury – Earth across the Sun  
 August 9 (16:00)– September 12 (02:00), 2014: Triple Line Up Saturn – Venus – Juno  
 August 12 (04:30) - 13 (01:00), 2014: Opposition Mercury - Neptune across the Sun  
 August 14 (03:00) – 15 (00:30), 2014: Opposition Mercury - Chiron across the Sun  
 August 16 (16:00) – 19 (16:30), 2014: Triple Line Up Venus – Jupiter - Earth  
 August 17 (15:00) – 20 (02:00), 2014: Opposition Venus - Pluto across the Sun  
 August 18 (02:00) – 20 (06:00), 2014: Triple Line Up Mercury – Earth – Neptune  
 August 18 (14:00) – 21 (07:30) , 2014: Triple Line Up Mercury – Venus - Vesta  
 August 19 (00:00) – 23 (18:00), 2014: Triple Line Up Pluto – Mercury - Mars  
 August 21 (05:30) – 22 (08:00), 2014: Opposition Mercury – Uranus across the Sun  
 August 22 (15:00) – 23 (15:00), 2014: Conjunction Mercury - Pallas and the Sun  
 August 22 (17:30) – 28 (21:00), 2014: Triple Line Up Mars - Saturn – Earth  
 August 23 (10:30) – 25 (17:30), 2014: Triple Line Up Mercury – Earth – Chiron  
 August 26 (07:00) - September 2 (19:00), 2014: Triple Line Up Pluto – Juno - Earth  
 August 27 (13:30) – 31 (15:00), 2014: Conjunction Earth – Neptune and the Sun  
 August 28 (06:30) – September 9 (19:00), 2014: Triple Line Up Uranus – Mercury – Pallas  
 August 29 (12:00) – September 2 (18:00), 2014: Triple Line Up Pluto – Venus – Mars  
 August 31 (14:30) – September 2 (20:00), 2014: Conjunction Venus – Jupiter and the Sun  
 September 1 (03:00) – 4 (18:00), 2014: Triple Line Up: Vesta – Mercury - Juno  
 September 2 (15:00) – 3 (23:30), 2014: Conjunction Mercury - Saturn and the Sun  
 September 3 (21:00) – 5 (22:00), 2014: Triple Line Up Pluto – Venus – Mercury  
 September 4 (01:00) - 5 (07:30), 2014: Conjunction Mercury – Ceres and the Sun  
 September 6 (06:00) – 10 (02:00), 2014: Conjunction Chiron – Earth and the Sun  
 September 6 (13:00) – 18 (14:00), 2014: Triple Line Up Chiron – Mars - Pallas  
 September 7 (12:00) – 9 (10:00) , 2014: Triple Line Up: Venus – Mercury - Mars  
 September 8 (18:00) – 10 (03:00), 2014: Conjunction Mercury – Vesta and the Sun  
 September 8 (21:00) – 12 (01:00), 2014: Triple Line Up Neptune – Venus – Earth  
 September 10 (03:00) – 13 (05:00), 2014: Triple Line Up Mercury – Pallas - Earth  
 September 10 (04:30)- 18 (00:30), 2014: Triple Line Up Saturn - Vesta - Earth  
 September 10 (16:00) – October 13 (16:00), 2014: Triple Line Up Pluto – Ceres - Jupiter  
 September 11 (20:00) – 14 (22:00), 2014: Triple Line Up Mercury – Uranus - Earth  
 September 12 (06:00) – 20 (17:00), 2014: Triple Line Up Uranus – Pallas - Earth  
 September 12 (13:30)- 14 (06:00), 2014: Opposition Mercury - Juno across the Sun  
 September 13 (15:00) - 20 (04:00), 2014: Conjunction Mars – Pluto and the Sun  
 September 13 (21:00) – 15 (16:30), 2014: Triple Line Up: Venus – Mercury – Jupiter  
 September 16 (05:00) – 19 (07:30), 2014: Triple Line Up Venus – Earth – Chiron  
 September 16 (14:00) – 29 (23:00), 2014: Triple Line Up Uranus – Mercury - Pallas

September 19 (12:30)- 23 (10:00), 2014: Triple Line Up Mars – Venus - Jupiter  
September 19 (18:00) – 22 (05:30), 2014: Opposition Venus - Neptune across the Sun  
September 20 (03:30) – 21 (14:00), 2014: Conjunction Mercury - Pluto and the Sun  
September 21 (08:00) – 22 (12:00), 2014: Conjunction Mercury – Mars and the Sun  
September 24 (08:00) – October 12 (19:00), 2014: Triple Line Up Pluto – Mars – Mercury  
September 25 (11:00) – 27 (22:30), 2014: Opposition Venus – Chiron across the Sun  
September 28 (06:00)- 29 (11:30), 2014: Opposition Mercury – Jupiter across the Sun  
September 29 (07:00)- 30 (23:00), 2014: Triple Line Up Mercury – Venus - Neptune  
September 30 (19:00) - October 10 (04:00), 2014: Triple Line Up Saturn – Earth - Ceres  
October 3 (06:00) – 4 (19:30), 2014: Triple Line Up Mercury – Venus - Chiron  
October 5 (22:00) – 9 (20:00), 2014: Conjunction Uranus - Earth and the Sun  
October 6 (06:00)- 14 (12:00), 2014: Triple Line Up Pluto – Mars – Juno  
October 6 (09:30) – 7 (09:00), 2014: Conjunction Neptune – Mercury and the Sun  
October 6 (20:30) - 14 (15:30), 2014: Triple Line Up Mars – Juno – Mercury  
October 7 (11:00) – 26 (20:15) , 2014: Triple Line Up Pluto – Juno – Mercury  
October 8 (15:30) – 9 (13:30), 2014: Conjunction Mercury – Chiron and the Sun  
October 9 (20:00) – 12 (22:00), 2014: Triple Line Up Venus – Earth - Uranus  
October 12 (12:30)- 14 (15:00), 2014: Triple Line Up Mercury – Pallas – Earth  
October 13 (07:30) – 15 (20:00), 2014: Opposition Venus – Uranus across the Sun  
October 14 (06:30)- 15 (16:00), 2014: Triple Line Up Mercury – Venus - Uranus  
October 14 (20:00) – 15 (14:00), 2014: Conjunction Mercury – Uranus and the Sun  
October 14 (22:00) – 15 (23:45) , 2014: Opposition Venus – Mercury across the Sun  
October 16 (05:30)– November 29(12:00), 2014: Triple Line Up Vesta – Venus - Pluto  
October 16 (13:00) – 17 (04:00), 2014: Conjunction Mercury – Earth and the Sun  
October 17 (06:00) – 18 (05:30), 2014: Triple Line Up Mercury – Venus – Earth  
October 17 (19:00) – 18 (15:00), 2014: Opposition Pallas – Mercury across the Sun  
October 18 (14:00)- 24 (16:00), 2014: Triple Line Up Juno – Venus – Ceres  
October 20 (06:00) – November 1 (19:00), 2014: Triple Line Up Saturn – Juno - Pallas  
October 21 (07:30) – 22 (13:00), 2014: Triple Line Up Mercury – Venus – Pallas  
October 21 (23:30) – 22 (15:00), 2014: Opposition Saturn – Mercury across the Sun  
October 22 (00:30) – 28 (14:00), 2014: Opposition Venus – Earth across the Sun  
October 23 (20:00) – November 4 (16:00), 2014: Triple Line Up Vesta – Saturn - Mars  
October 23 (22:00) – 29 (01:00), 2014: Opposition Pallas – Earth across the Sun  
October 24 (01:30 – 17:00), 2014: Opposition Ceres – Mercury across the Sun  
October 24 (18:00) – 26 (23:00), 2014: Conjunction Pallas - Venus and the Sun  
October 25 (18:00) – 27 (08:00), 2014: Triple Line Up Venus - Pallas – Earth  
October 26 (22:00) – 27 (15:00), 2014: Opposition Mercury - Vesta across the Sun  
October 27 (18:00) – November 4 (02:30), 2014: Opposition Jupiter – Mars  
October 29 (01:00)- 30 (08:00), 2014: Triple Line Up Venus – Mercury - Saturn  
October 29 (00:30 – 14:30), 2014: Conjunction Mercury – Juno and the Sun  
October 29 (14:30) – 30 (06:30), 2014: Opposition Pluto – Mercury across the Sun  
October 29 (08:30) - November 2 (23:30), 2014: Triple Line Up Venus – Mars – Neptune  
November 1 (17:30) – 3 (21:00), 2014: Triple Line Up Jupiter – Mercury - Mars  
November 1 (22:00) – 17(14:00), 2014: Triple Line Up Neptune – Vesta – Pallas  
November 3 (07:00 – 21:30), 2014: Conjunction Mercury – Jupiter and the Sun  
November 3 (11:30) – 4 (07:30), 2014: Opposition Mars – Mercury across the Sun  
November 3 (11:00) – 14 (22:30), 2014: Opposition Pluto – Juno across the Sun  
November 3 (13:30) – 6 (13:30), 2014: Triple Line Up Juno – Mercury – Vesta  
November 5 (18:30) - 7 (06:00), 2014: Triple Line Up Venus – Mercury - Ceres  
November 8 (00:30)- 10 (09:30), 2014: Conjunction Venus – Saturn and the Sun  
November 8 (06:30) – 9 (03:00) , 2014: Opposition Mercury – Neptune across the Sun  
November 8 (08:30) – 13 (13:00), 2014: Triple Line Up Pluto - Mars – Earth  
November 10 (07:30) – 11 (05:00), 2014: Opposition Mercury – Chiron across the Sun  
November 10 (12:30)– December 19 (22:00), 2014: Triple Line Up Pluto – Jupiter - Pallas  
November 11 (04:30) – 16 (02:30), 2014: Triple Line Up Mars - Venus – Chiron  
November 11 (13:00) – 13 (13:00) , 2014: Triple Line Up Saturn - Venus – Earth  
November 12 (11:30) – 14 (08:30), 2014: Triple Line Up Mercury - Venus – Juno  
November 13 (12:30) – 21 (19:00), 2014: Triple Line Up Mercury – Vesta - Pluto  
November 15 (23:30) – 18 (03:00), 2014: Triple Line Up Mercury - Pallas – Earth  
November 16 (07:30) – 20 (10:00), 2014: Opposition Earth – Saturn across the Sun

November 16 (23:30)- 18 (21:30), 2014: Triple Line Up Mercury - Venus – Pluto  
November 17 (07:30)- 19 (02:30), 2014: Triple Line Up Mercury - Venus – Vesta  
November 17 (11:00) – 18 (14:00) , 2014: Opposition Mercury – Uranus across the Sun  
November 19 (12:00) – 21 (15:30), 2014: Conjunction Venus – Ceres and the Sun  
November 20 (09:30)- 23 (16:30), 2014: Triple Line Up Neptune – Mars – Mercury  
November 24 (03:00)- 27(18:30), 2014: Triple Line Up Venus - Ceres – Earth  
November 24 (03:00) – December 5 (12:00), 2014: Triple Line Up Juno - Pluto – Vesta  
November 24 (05:30) – 28 (13:00) , 2014: Triple Line Up Juno - Venus – Vesta  
November 24 (22:00) – 27 (07:00), 2014: Triple Line Up Mercury - Saturn – Earth  
November 25 (02:30)- 30 (23:30), 2014: Triple Line Up Juno - Venus – Pluto  
November 25 (21:30) – 26 (01:30), 2014: Conjunction Mercury – Pallas and the Sun  
November 29 (17:30) - December 3 (17:30), 2014: Triple Line Up Mercury – Mars - Chiron  
November 29 (23:30) - December 3 (05:00), 2014: Triple Line Up Mercury - Venus – Jupiter  
November 30 (06:00) - December 11 (04:00), 2014: Triple Line Up Uranus – Pallas – Mars  
November 30 (13:00) - December 1 (22:00), 2014: Conjunction Mercury – Saturn and the Sun  
November 30 (22:30)- December 14 (10:30), 2014: Triple Line Up Saturn – Ceres - Mars  
December 1 (03:30) – 6 (20:00), 2014: Triple Line Up Mercury – Pluto - Juno  
December 5 (10:00) – 9 (16:00), 2014: Triple Line Up Mercury – Vesta - Juno  
December 5 (15:00)- 7 (17:30), 2014: Conjunction Venus - Vesta and the Sun  
December 7 (06:30)- 9 (13:00), 2014: Opposition Mercury – Earth across the Sun  
December 7 (10:00) – 12 (08:00), 2014: Opposition Ceres – Earth across the Sun  
December 7 (21:00) - 10 (07:30), 2014: Conjunction Venus - Pluto and the Sun  
December 8 (02:00?) - 10 (06:00), 2014: Triple Line Up Mercury - Ceres – Earth  
December 8 (04:00?) – 9 (12:30), 2014: Conjunction Mercury - Ceres and the Sun  
December 10 (04:30) - 16 (06:00), 2014: Conjunction Mars – Neptune and the Sun  
December 10 (16:00) – 22 (22:00), 2014: Triple Line Up Mercury – Vesta - Pluto  
December 13 (00:15) – 24 (23:30), 2014: Conjunction Vesta – Pluto and the Sun  
December 14 (13:00) – 17 (03:30), 2014: Triple Line Up Venus - Vesta – Earth  
December 15 (15:00) - 18 (20:00), 2014: Opposition Venus - Juno across the Sun  
December 17 (06:30) – 18 (13:00), 2014: Conjunction Mercury – Vesta and the Sun  
December 17 (08:00) – 18 (17:00), 2014: Conjunction Mercury – Vesta - Pluto and the Sun  
December 19 (07:30) – 22 (10:30), 2014: Triple Line Up Venus - Pluto – Earth  
December 21 (10:00) , 2014 – January 6 (07:30), 2015: Triple Line Up Chiron – Vesta – Pallas (check!!!!)  
December 22 (04:30) - 23 (15:00), 2014: Opposition Mercury – Juno across the Sun  
December 22 (21:30) – 25 (00:30), 2014: Triple Line Up Mercury - Vesta – Earth  
December 23 (10:30) – 26 (18:40), 2014: Triple Line Up Venus - Mercury – Jupiter  
December 23 (23:00) – 28 (12:30), 2014: Triple Line Up Mars - Juno – Earth  
December 24 (01:30)- 26 (12:30), 2014: Triple Line Up Mercury - Pluto – Earth  
December 24 (11:30)- 31 (18:00), 2014: Triple Line Up Vesta - Pluto – Earth  
December 24 (19:00) , 2014 - January 2 (22:30), 2015: Triple Line Up Pallas - Saturn – Earth  
December 25 (15:30) – 31 (12:00), 2014: Conjunction Mars – Chiron and the Sun  
December 26 (16:50) – 27 (15:30), 2014: Conjunction Mercury – Venus and the Sun  
December 27 (09:00) – 28 (13:30), 2014: Opposition Mercury – Jupiter across the Sun  
December 27 (14:30) – 30 (06:30), 2014: Opposition Venus – Jupiter across the Sun  
December 30 (11:30)– January 4 (03:30), 2015: Triple Line Up Jupiter – Mars - Earth  
January 1 (23:30) – 14 (17:00), 2015: Triple Line Up Venus - Mercury – Juno  
January 1 (23:45) - 5 (23:00), 2015: Opposition Pluto - Earth across the Sun  
January 2 (12:00) – 3 (11:30), 2015: Conjunction Mercury – Neptune and the Sun  
January 4 (20:00) – 5 (18:00), 2015: Conjunction Mercury – Chiron and the Sun  
January 6 (04:00 – 22:30), 2015: Conjunction Mercury – Mars and the Sun  
January 7 (17:00) – 16 (06:00), 2015: Triple Line Up Jupiter – Mars – Juno  
January 8 (04:30) - 13 (21:00), 2015: Opposition Vesta – Earth across the Sun  
January 9 (10:00) – 16 (05:00), 2015: Triple Line Up Mercury – Vesta - Pluto  
January 10 (13:30) – 14 (11:30), 2015: Triple Line Up Mercury – Venus - Earth  
January 10 (22:30) – 13 (10:00), 2015: Conjunction Venus – Neptune and the Sun  
January 10 (23:30) – 11 (17:00), 2015: Conjunction Mercury - Uranus and the Sun  
January 12 (23:30) – 15 (18:30), 2015: Triple Line Up Juno – Venus – Earth  
January 13 (09:00) – 16 (15:00), 2015: Triple Line Up Juno – Mercury – Earth  
January 14 (04:00) – 18 (08:30), 2015: Triple Line Up Mercury – Mars – Chiron  
January 16 (00:30) – 18 (07:30), 2015: Triple Line Up Mercury – Jupiter - Venus

January 16 (15:00) – 31 (18:00), 2015: Triple Line Up Juno – Ceres - Pluto  
January 17 (02:30) – 19 (13:00), 2015: Conjunction Venus - Chiron and the Sun  
January 17 (06:00 – 22:30), 2015: Opposition Mercury - Pallas across the Sun  
January 17 (12:30)- 22 (12:00), 2015: Triple Line Up Mars – Neptune - Earth  
January 18 (02:30) – 21 (00:45), 2015: Triple Line Up Venus - Jupiter – Earth  
January 18 (09:30) – 19 (01:00) , 2015: Opposition Mercury – Saturn across the Sun  
January 22 (23:30) – 23 (15:30), 2015: Opposition Mercury – Ceres across the Sun  
January 24 (09:30) – 26 (01:30), 2015: Triple Line Up Venus – Mercury – Neptune  
January 25 (15:30) – 26 (07:30), 2015: Opposition Mercury – Pluto across the Sun  
January 26 (00:30) – February 1 (10:00), 2015: Triple Line Up Saturn – Pallas - Mercury  
January 27 (03:00) – February 2 (20:00), 2015: Triple Line Up Venus – Jupiter - Juno  
January 27 (16:30)- 28 (09:30), 2015: Opposition Mercury – Vesta across the Sun  
January 28 (05:00) – 31 (08:00), 2015: Conjunction Juno – Earth and the Sun  
January 28 (08:30) – 29 (23:00), 2015: Triple Line Up Venus – Mercury – Chiron  
January 29 (09:30)- February 3 (07:30), 2015: Triple Line Up Mars - Chiron - Earth  
January 29 (13:30) - February 2 (17:00), 2015: Triple Line Up Mercury - Juno - Earth  
January 30 (03:30 – 19:00), 2015: Conjunction Mercury - Juno and the Sun  
January 30 (06:30 – 20:30) , 2015: Conjunction Mercury – Earth and the Sun  
January 30 (15:30) - February 1 (15:30), 2015: Conjunction Venus - Mars and the Sun  
January 31 (03:30) - February 3 (07:30), 2015: Triple Line Up Venus – Neptune - Earth  
January 31 (11:00) - February 1 (04:30), 2015: Conjunction Mercury - Jupiter  
February 4 (06:30) – 6 (14:30), 2015: Triple Line Up Mercury - Vesta - Earth  
February 4 (07:30) – 6 (19:00), 2015: Conjunction Venus – Uranus and the Sun  
February 4 (08:30) – 5 (05:00), 2015: Opposition Mercury – Neptune across the Sun  
February 5 (00:15) – 8 (12:30), 2015: Conjunction Earth – Jupiter and the Sun  
February 5 (09:30)- 6 (20:00), 2015: Triple Line Up Mercury – Venus – Mars  
February 5 (20:30)- 9 (04:00), 2015: Triple Line Up Mercury - Vesta - Juno  
February 6 (01:00) – 15 (23:30), 2015: Triple Line Up Juno – Mars - Neptune  
February 6 (11:30) – 7 (09:30) , 2015: Opposition Mercury – Chiron across the Sun  
February 7 (15:30) - 10 (18:30), 2015: Triple Line Up Chiron - Venus - Earth  
February 8 (00:30) – 13 (10:00), 2015: Triple Line Up Juno - Vesta - Earth (check!)  
February 8 (07:00) - 17 (10:30), 2015: Triple Line Up Pluto – Venus – Vesta  
February 9 (10:30) – 11 (02:30), 2015: Triple Line Up Mercury – Venus - Uranus  
February 10 (07:30)- 20 (20:30), 2015: Triple Line Up Pluto – Ceres – Earth  
February 10 (11:30) – 16 (16:30), 2015: Conjunction Mars – Uranus and the Sun  
February 12 (11:15)- 15 (12:30), 2015: Triple Line Up Mercury – Mars - Uranus  
February 13 (16:30)- 14 (19:30), 2015: Opposition Mercury – Uranus across the Sun  
February 13 (17:00) - 15 (01:30), 2015: Opposition Mercury - Mars across the Sun  
February 16 (10:00) – March 5 (06:00), 2015: Conjunction Saturn – Pallas and the Sun  
February 16 (10:30) – 25 (04:30), 2015: Triple Line Up Mercury – Jupiter - Vesta  
February 17 (15:30) – 22 (01:00), 2015: Triple Line Up Mercury - Juno - Earth  
February 20 (16:30) – 23 (19:00), 2015: Triple Line Up Venus - Mars - Earth  
February 21 (05:00) – 24 (02:30), 2015: Opposition Mercury – Venus across the Sun  
February 23 (20:30) – March 2 (6:00), 2015: Triple Line Up Jupiter - Vesta - Earth  
February 24 (05:00) – 28 (05:00), 2015: Opposition Earth – Neptune across the Sun  
February 24 (18:30) – March 9 (15:00), 2015: Triple Line Up Venus – Neptune - Juno  
February 25 (00:30) – March 9 (11:00), 2015: Triple Line Up Saturn – Pallas - Mercury  
February 26 (04:30) – March 5 (12:00), 2015: Triple Line Up Saturn – Pallas - Venus  
February 27 (11:30) – 28 (20:30), 2015: Conjunction Mercury – Saturn and the Sun  
February 27 (18:30) - 28 (23:30), 2015: Conjunction Mercury – Pallas and the Sun  
February 28 (07:30) – March 3 (09:00), 2015: Triple Line Up Jupiter - Mercury - Earth  
February 28 (20:00) – March 11 (01:30), 2015: Triple Line Up Juno – Mars - Chiron  
March 1 (06:00) – 2 (02:00), 2015: Triple Line Up Mercury – Venus - Saturn  
March 1 (10:00) – 3 (02:00), 2015: Triple Line Up Mercury - Venus - Pallas  
March 2 (01:00) – 13 (19:00), 2015: Conjunction Jupiter - Juno and the Sun  
March 2 (12:30) – 5 (22:30), 2015: Triple Line Up Vesta - Mercury - Earth  
March 3 (04:00) – 6 (09:00), 2015: Triple Line Up Uranus – Venus – Earth  
March 3 (12:00) – 5 (23:30), 2015: Opposition Saturn – Venus across the Sun  
March 4 (06:30) – 7 (03:00), 2015: Opposition Pallas – Venus across the Sun  
March 6 (06:00) – 10 (04:00), 2015: Opposition Earth – Chiron across the Sun

March 6 (19:30) – 29 (06:00), 2015: Triple Line Up Vesta – Ceres - Saturn  
March 8 (04:00) - 17 (08:30), 2015: Triple Line Up Vesta – Mercury – Jupiter  
March 9 (03:00) – 14 (05:00), 2015: Triple Line Up Mars – Uranus - Earth  
March 9 (15:30) – April 4 (19:00), 2015: Triple Line Up Mars – Jupiter - Neptune  
March 13 (00:30) – 14 (06:30), 2015: Conjunction Mercury – Ceres and the Sun  
March 14 (05:30)- 18 (10:30), 2015: Triple Line Up Vesta – Mercury – Juno  
March 15 (12:00) – 16 (20:30), 2015: Conjunction Mercury - Pluto and the Sun  
March 17 (02:30) – 19 (14:00), 2015: Triple Line Up Mercury – Neptune - Earth  
March 17 (12:30) – 22 (17:00), 2015: Triple Line Up Mercury – Jupiter - Juno  
March 18 (17:00) – 20 (10:00), 2015: Triple Line Up Mercury - Venus – Ceres  
March 18 (18:00) – 30 (00:30), 2015: Triple Line Up Vesta – Jupiter - Juno  
March 21 (06:00) – April 5 (23:00), 2015: Triple Line Up Mercury – Mars – Pallas  
March 22 (18:00) – 24 (15:00), 2015: Triple Line Up Mercury - Venus - Pluto  
March 23 (10:00) – 25 (16:00), 2015: Triple Line Up Mercury – Chiron - Earth  
March 24 (20:00)– April 9 (02:00), 2015: Triple Line Up Mercury – Mars - Saturn  
March 25 (00:30) – 26 (01:30), 2015: Conjunction Mercury - Vesta and the Sun  
March 26 (14:00) – April 6 (14:30), 2015: Triple Line Up Mars – Saturn - Pallas  
March 27 (03:00) – April 6 (17:30), 2015: Triple Line Up Pluto – Vesta - Mars  
March 27 (08:55) - 28 (12:00), 2015: Opposition Mercury – Jupiter across the Sun  
March 27 (09:20) – April 5 (07:30), 2015: Triple Line Up Mercury – Saturn - Pallas  
March 28 (07:30) – 31 (01:00), 2015: Opposition Ceres – Venus across the Sun  
March 28 (09:30) – April 13 (03:00), 2015: Triple Line Up Pluto – Pallas - Juno  
March 28 (10:00) -29 (13:00), 2015: Opposition Mercury – Juno across the Sun  
March 28 (19:00) – April 16 (19:00), 2015: Triple Line Up Neptune – Pallas – Ceres  
March 29 (17:00) – April 5 (01:00), 2015: Triple Line Up Venus – Mars - Uranus  
March 31 (02:00) - April 2 (13:00), 2015: Opposition Pluto – Venus across the Sun  
March 31 (14:00) - April 1 (14:00), 2015: Conjunction Mercury - Neptune and the Sun  
April 3 (00:30 – 22:05) , 2015: Conjunction Mercury – Chiron and the Sun  
April 3 (22:25) – 5 (15:00), 2015: Triple Line Up Mercury - Venus - Vesta  
April 3 (23:30) – 12 (04:30), 2015: Triple Line Up Pluto – Ceres – Venus  
April 4 (13:00) – 8 (15:30), 2015: Opposition Uranus – Earth across the Sun  
April 7 (13:00) – 9 (10:30), 2015: Triple Line Up Mercury – Uranus – Earth  
April 11 (06:30) – 30 (16:00), 2015: Conjunction Pluto – Ceres and the Sun  
April 9 (02:00 – 21:00), 2015: Conjunction Mercury – Uranus and the Sun  
April 9 (16:00) – 10 (15:00), 2015: Opposition Mercury - Earth across the Sun  
April 11 (08:30) – 13 (03:00), 2015: Triple Line Up Mercury - Venus – Jupiter  
April 11 (22:00) - 30 (01:00), 2015: Triple Line Up Juno – Mercury - Neptune  
April 12 (19:30) – 21 (10:00), 2015: Triple Line Up Vesta – Neptune - Earth  
April 13 (12:30) – 16 (20:00), 2015: Triple Line Up Saturn - Venus - Earth  
April 13 (21:30) – 26 (22:00), 2015: Triple Line Up Juno – Venus - Neptune  
April 15 (09:00 – 23:00) 2015: Conjunction Mercury – Mars and the Sun  
April 16 (19:00) – 17 (11:00), 2015: Opposition Mercury - Saturn  
April 17 (04:00) – 19 (23:30), 2015: Triple Line Up Mercury - Venus - Neptune  
April 17 (18:00) – 20 (06:00), 2015: Triple Line Up Mercury - Venus - Juno  
April 18 (06:30 – 22:00), 2015: Opposition Mercury - Pallas across the Sun  
April 20 (06:00) – May 6 (16:00), 2015: Triple Line Up Uranus – Vesta - Pallas  
April 20 (17:00) – 25 (20:30), 2015: Triple Line Up Pluto – Ceres – Mercury  
April 22 (02:30) – 23 (21:00), 2015: Triple Line Up Mercury – Mars - Earth  
April 23 (07:30)– May 12 (01:00), 2015: Opposition Jupiter – Vesta across the Sun  
April 23 (09:30) – 26 (09:30), 2015: Opposition Venus – Vesta across the Sun  
April 23 (17:00)- 24 (08:30), 2015: Opposition Mercury - Pluto across the Sun  
April 23 (19:00)- 24 (11:00), 2015: Opposition Mercury - Ceres across the Sun  
April 24 (18:00) – 29 (23:00), 2015: Triple Line Up Jupiter - Venus - Vesta  
April 24 (20:00) – 27 (06:00), 2015: Conjunction Venus – Jupiter and the Sun  
April 28 (23:00) – May 6 (19:30), 2015: Opposition Mars – Saturn across the Sun  
April 29 (16:00)– May 3 (03:00), 2015: Triple Line Up Jupiter - Mercury - Vesta  
April 30 (15:30) – May 1 (11:00), 2015: Opposition Mercury - Vesta across the Sun  
April 30 (21:30) - May 3 (20:00), 2015: Triple Line Up Mercury - Venus - Neptune  
May 1 (01:30) – 3 (03:00), 2015: Conjunction Venus – Juno and the Sun  
May 1 (22:00) – 4 (22:30), 2015: Triple Line Up Mercury – Saturn - Earth

May 2 (17:00) – 3 (11:00) , 2015: Conjunction Mercury - Juno and the Sun  
May 2 (17:00)- 3 (20:30), 2015: Conjunction Venus - Mercury and the Sun  
May 3 (06:00) - 5 (18:30), 2015: Opposition Venus – Neptune across the Sun  
May 3 (10:00) – 4 (07:00) , 2015: Opposition Mercury – Neptune across the Sun  
May 4 (04:00) – 7 (22:30), 2015: Triple Line Up Mercury - Venus - Juno  
May 5 (13:00) – 8 (18:00), 2015: Triple Line Up Venus - Pallas - Earth  
May 5 (15:00) - 6 (13:30), 2015: Opposition Mercury – Chiron across the Sun  
May 6 (23:30) – 8 (22:30), 2015: Triple Line Up Mercury - Venus - Vesta  
May 7 (16:00) – 10 (22:00), 2015: Triple Line Up Mercury - Juno - Vesta  
May 7 (21:00) – 12 (11:00), 2015: Triple Line Up Juno - Venus – Vesta  
May 9 (14:00) – 18 (19:30), 2015: Triple Line Up Vesta - Chiron - Earth  
May 9 (14:00) – 12 (02:00) , 2015: Opposition Venus - Chiron across the Sun  
May 10 (14:00) – 28 (21:00), 2015: Opposition Juno – Neptune across the Sun  
May 10 (16:00) – October 7 (11:00), 2015: Triple Line Up Jupiter – Mars - Chiron  
May 12 (01:00)- 22 (22:00), 2015: Triple Line Up Juno – Jupiter – Earth  
May 12 (16:00) – 17 (20:00), 2015: Triple Line Up Mars – Saturn - Earth  
May 12 (22:00) – 14 (01:30) , 2015: Opposition Mercury – Uranus across the Sun  
May 16 (08:30) – 22 (14:30), 2015: Triple Line Up Neptune – Vesta – Mercury  
May 17 (16:00) – 21 (08:00), 2015: Triple Line Up Saturn – Mercury - Mars  
May 18 (19:00) - 25 (13:00), 2015: Triple Line Up Neptune – Vesta – Venus  
May 19 (11:00) – 23 (10:30), 2015: Triple Line Up Juno - Venus - Mercury  
May 20 (05:00) – 23 (23:00), 2015: Triple Line Up Venus - Pluto - Earth  
May 21 (03:00) - 24 (23:30), 2015: Conjunction Saturn – Earth and the Sun  
May 21 (13:00) – June 4 (22:00), 2015: Triple Line Up Juno – Jupiter – Ceres  
May 26 (02:30) – 28 (17:30), 2015: Triple Line Up Mercury – Mars - Earth  
May 27 (10:00) – 28 (19:30) , 2015: Conjunction Mercury – Saturn and the Sun  
May 27 (13:00) - 30 (01:30), 2015: Opposition Venus – Uranus across the Sun  
May 28 (09:00) – June 11 (09:00) , 2015: Triple Line Up Juno – Uranus – Mars  
May 28 (12:00) – 31(06:00), 2015: Triple Line Up Neptune - Venus - Mercury  
May 29 (13:00) – June 13 (15:00), 2015: Triple Line Up Neptune – Juno - Vesta  
May 30 (02:00) – 31 (07:30), 2015: Conjunction Mercury – Earth and the Sun  
June 1 (10:00) – 4 (06:30), 2015: Triple Line Up Venus – Mercury - Vesta  
June 1 (10:00) – 14 (05:00), 2015 : Opposition Pallas – Mars across the Sun  
June 1 (19:00) – 3 (15:00), 2015: Opposition Mercury – Mars across the Sun  
June 2 (16:30) – 3 (23:30), 2015: Conjunction Mercury - Pallas and the Sun  
June 2 (16:30) – 5 (13:30), 2015: Triple Line Up Mars – Mercury – Pallas  
June 2 (22:00) – 20 (14:00), 2015: Triple Line Up Chiron – Ceres - Pallas  
June 4 (08:00) – 8 (19:00), 2015: Triple Line Up Venus – Mars – Saturn  
June 4 (10:00) – 6 (16:00), 2015: Triple Line Up Venus – Mercury – Chiron  
June 6 (12:00) – 19 (18:00), 2015: Triple Line Up Pluto – Ceres - Mars  
June 8 (16:00)- 16 (04:30), 2015: Triple Line Up Venus – Chiron – Vesta  
June 9 (01:00) – 13 (03:00), 2015: Triple Line Up Pallas – Earth – Mars  
June 10 (06:00) – 19 (02:00), 2015: Opposition Mars – Earth across the Sun  
June 10 (06:00) – 13 (16:00), 2015: Conjunction Pallas – Earth and the Sun  
June 11 (15:00) – 12 (23:30), 2015: Conjunction Mercury – Pluto and the Sun  
June 12 (13:00) – 25 (23:00), 2015: Conjunction Vesta – Neptune and the Sun  
June 12 (22:00) – 17 (01:00), 2015: Triple Line Up Venus – Earth - Ceres  
June 14 (12:00) – 20 (20:00), 2015: Triple Line Up Juno – Mercury - Neptune  
June 15 (04:00) – 16 (09:00), 2015: Conjunction Mercury - Ceres and the Sun  
June 18 (20:00) – 20 (15:00), 2015: Triple Line Up Venus – Mercury – Uranus  
June 22 (14:00) – 26 (05:00), 2015: Triple Line Up Juno – Mercury – Vesta  
June 25 (03:00) – 27 (12:00), 2015: Conjunction Venus – Saturn and the Sun  
June 25 (06:00) – 26 (08:00), 2015: Opposition Mercury - Jupiter across the Sun  
June 27 (16:00) – 28 (16:30), 2015: Conjunction Mercury – Neptune and the Sun  
June 27 (19:00) – July 5 (12:00), 2015: Triple Line Up Venus – Jupiter - Earth  
June 28 (01:00) – 30 (18:30), 2015: Triple Line Up Mercury – Earth - Pallas  
June 28 (03:30) – July 4 (12:00), 2015: Triple Line Up Mars – Mercury – Pluto  
June 28 (09:00) – 29 (06:00), 2015: Conjunction Mercury – Vesta and the Sun  
June 28 (19:00) – July 19 (14:00), 2015: Opposition Juno – Chiron across the Sun  
June 29 (18:00) – 30 (18:00), 2015: Opposition Mercury – Juno across the Sun

June 29 (22:00) – July 5 (02:00), 2015: Triple Line Up Mercury – Juno - Chiron  
June 30 (04:30) – 31 (02:30), 2015: Conjunction Mercury - Chiron and the Sun  
June 30 (16:00) – July 19 (10:00), 2015: Triple Line Up Neptune – Mercury – Vesta  
July 3 (11:00) – 6 (22:00), 2015: Triple Line Up Venus – Mars - Pallas  
July 4 (14:00) – 8 (17:00): Conjunction Pluto - Earth and the Sun  
July 6 (06:30) – 7 (01:00), 2015: Conjunction Mercury - Uranus and the Sun  
July 6 (08:00) – 7 (18:00), 2015: Triple Line Up Mercury – Venus - Saturn  
July 10 (02:00) – 12 (04:00), 2015: Conjunction Venus – Pallas and the Sun  
July 12 (16:00) – 18 (12:30), 2015: Triple Line Up Earth – Pluto - Mars  
July 13 (01:00) – 28 (07:00), 2015: Triple Line Up Vesta – Juno – Chiron  
July 13 (16:00) – 18 (23:00), 2015: Triple Line Up Mercury – Mars – Pluto  
July 14 (04:00 – 21:00), 2015: Opposition Mercury – Saturn across the Sun  
July 14 (11:00) – 15 (16:30), 2015: Triple Line Up Mercury – Pallas - Venus  
July 15 (00:30) - 16 (22:30), 2015: Triple Line Up Mercury – Pluto – Earth  
July 15 (09:00)- 16 (21:30), 2015: Triple Line Up Mercury – Mars – Earth  
July 16 (01:00) – August 1 (20:00), 2015: Triple Line Up Jupiter – Juno - Pallas  
July 17 (01:00) – 18 (17:30), 2015: Opposition Mercury - Pallas across the Sun  
July 18 (11:00) – 22 (02:00), 2015: Opposition Venus - Mars across the Sun  
July 18 (14:00) – 28 (06:30), 2015: Triple Line Up Venus – Juno – Neptune  
July 19 (20:30) - 20 (23:30), 2015: Triple Line Up Venus – Mars – Mercury  
July 20 (02:00) – 21 (00:15), 2015: Opposition Mercury – Venus across the Sun  
July 20 (05:30 – 19:00), 2015: Conjunction Mercury – Mars and the Sun  
July 20 (18:00) – 21 (10:00), 2015: Opposition Mercury – Pluto across the Sun  
July 21 (00:15) – 22 (08:00), 2015: Triple Line Up Venus – Mercury – Pluto  
July 21 (01:00) – 31 (00:15), 2015: Triple Line Up Juno – Neptune – Earth  
July 21 (02:00) – August 16 (05:00), 2015: Triple Line Up Jupiter - Vesta – Neptune  
July 21(08:00) – 23 (20:00), 2015: Conjunction Venus – Pluto and the Sun  
July 21 (12:00) – August 3 (18:00) ,2015: Conjunction Vesta - Chiron and the Sun  
July 22 (06:00) – 26 (23:45), 2015: Triple Line Up Venus – Mars – Pluto  
July 23 (14:00) – 25 (09:30), 2015: Triple Line Up Mercury – Earth - Ceres  
July 23 (09:00) – 24 (05:00), 2015: Opposition Mercury – Earth across the Sun  
July 23 (12:00) – 26 (22:30), 2015: Conjunction Earth – Ceres and the Sun  
July 23 (15:00) – 24 (08:30), 2015: Opposition Mercury – Ceres across the Sun  
July 23 (17:00) – August 1 (08:00), 2015: Opposition Mars - Pluto across the Sun  
July 26 (15:00) – 30 (11:00), 2015: Triple Line Up Mercury – Mars - Pallas  
July 28 (08:00) – 29 (16:30), 2015: Triple Line Up Mercury – Venus - Ceres  
July 29 (02:00 – 21:00), 2015: Conjunction Mercury – Jupiter and the Sun  
July 29 (08:00) – August 3 (01:00), 2015: Triple Line Up Mercury – Vesta – Chiron  
July 30 (12:00) – 31 (09:00), 2015: Opposition Mercury - Neptune across the Sun  
August 1 (11:30) – 7 (18:00), 2015: Triple Line Up Venus – Jupiter - Earth  
August 1 (19:00) – 2 (18:00), 2015: Opposition Mercury - Chiron across the Sun  
August 2 (03:00) – 3 (03:00) , 2015: Opposition Mercury - Vesta across the Sun  
August 2 (19:00) – 4 (23:30), 2015: Conjunction Venus - Ceres and the Sun  
August 2 (23:00) - 3 (20:00) , 2015: Conjunction Mercury - Juno and the Sun  
August 3 (22:00) – 7 (05:00), 2015: Triple Line Up Mercury – Juno - Vesta  
August 5 (06:00) – 10 (00:15), 2015: Triple Line Up Mars – Earth - Ceres  
August 5 (22:00) - 7 (06:30), 2015: Triple Line Up Mercury – Venus – Earth  
August 6 (06:30) – 8 (08:00), 2015: Triple Line Up Mercury - Earth – Jupiter  
August 6 (09:00) – 7 (21:00), 2015: Triple Line Up Mercury – Venus –Jupiter  
August 8 (15:00) – September 9 (12:00), 2015: Triple Line Up Mercury – Juno - Chiron  
August 9 (03:30) – 10 (07:30), 2015: Opposition Mercury - Uranus across the Sun  
August 10 (07:00) -11 (23:30), 2015: Triple Line Up Mercury – Venus - Neptune  
August 11 (20:00) – 14 (07:00), 2015: Triple Line Up Mercury – Earth – Neptune  
August 12 (11:00) – 16 (08:00), 2015: Triple Line Up Venus – Ceres - Mars  
August 13 (03:00) – 21 (01:30), 2015: Triple Line Up Venus – Juno - Chiron  
August 14 (21:30) – 16 (17:30), 2015: Conjunction Venus - Earth and the Sun  
August 14 (21:30) - 16 (13:30), 2015: Triple Line Up Mercury – Juno – Venus  
August 15 (03:00) – 16 (22:00), 2015: Triple Line Up Mercury – Chiron – Venus  
August 15 (15:00) – 20 (20:00), 2015: Triple Line Up Mercury – Mars - Pallas  
August 17 (09:00) – October 5 (02:00), 2015: Opposition Juno – Vesta across the Sun



August 18 (02:30) – 20 (16:00) , 2015: Triple Line Up Mercury – Juno - Earth  
August 18 (08:00) – 27 (16:00), 2015: Triple Line Up Chiron – Earth - Juno  
August 19 (01:00) – 21 (19:00), 2015: Triple Line Up Mercury – Earth - Chiron  
August 21 (00:15) – 23 (16:30), 2015: Opposition Venus – Jupiter across the Sun  
August 21(00:30) – 25 (18:30), 2015: Triple Line Up Mercury – Mars - Pluto  
August 22 (01:30) – 23 (20:30), 2015: Triple Line Up Mercury – Venus – Vesta  
August 24 (08:30) – 25 (18:30), 2015: Conjunction Mercury – Saturn and the Sun  
August 24 (11:30) – 26 (23:30), 2015: Conjunction Venus - Neptune and the Sun  
August 24 (16:00) – 29 (04:30), 2015: Opposition Earth – Jupiter across the Sun  
August 26 (08:00) – September 9 (05:00), 2015: Triple Line Up Pluto – Pallas – Mars  
August 29 (05:30) – 31 (07:30), 2015: Triple Line Up Mercury – Venus – Uranus  
August 30 (03:00) – September 3 (04:00), 2015: Conjunction Earth - Neptune and the Sun  
August 30 (05:00) – September 3 (09:00), 2015: Triple Line Up Venus – Mars – Earth  
August 30 (21:00) – September 11 (08:00), 2015: Triple Line Up Vesta – Mars - Neptune  
August 31 (06:30)– September 2 (17:00), 2015: Conjunction Venus – Chiron and the Sun  
September 3 (10:30) - 18 (08:30),2015: Triple Line Up Jupiter – Venus - Neptune  
September 4 (21:00) – 8 (18:30),2015: Triple Line Up Mercury – Vesta – Earth  
September 5 (00:15) – 6 (06:00) ,2015: Conjunction Mercury - Pallas and the Sun  
September 5 (14:00) – 22 (17:30), 2015: Triple Line Up Pallas – Saturn - Vesta  
September 5 (15:00) – 10 (18:00),2015: Triple Line Up Venus – Juno – Vesta  
September 7 (03:30) – 9 (23:30), 2015: Opposition Venus - Juno across the Sun  
September 7 (08:30) – 9 (11:00) , 2015: Conjunction Venus - Vesta and the Sun  
September 7 (18:00) – 9 (02:00), 2015: Conjunction Mercury – Pluto and the Sun  
September 9 (00:30) – 25 (19:00), 2015: Triple Line Up Jupiter – Earth - Neptune  
September 10 (07:30) – 14 (06:00), 2015: Conjunction Chiron – Earth and the Sun  
September 15 (00:30) – 16 (10:30), 2015: Opposition Mercury – Mars across the Sun  
September 16 (16:00) – 17 (17:30), 2015: Conjunction Mercury – Ceres and the Sun  
September 18 (05:00) – 21 (02:30), 2015: Triple Line Up Mercury – Ceres – Mars  
September 18 (14:30) – 21 (00:30), 2015: Conjunction Venus – Uranus and the Sun  
September 23 (00:30) – 24 (00:30), 2015: Opposition Mercury – Jupiter across the Sun  
September 23 (19:30) – 24 (18:30), 2015: Conjunction Mercury – Neptune and the Sun  
September 24 (14:00) – 29 (14:00), 2015: Opposition Juno – Earth across the Sun  
September 25 (21:00) – October 6 (07:30), 2015: Triple Line Up Jupiter – Mars - Vesta  
September 25 (22:30) – October 11 (14:00), 2015: Opposition Mars – Ceres across the Sun  
September 26 (08:30) – October 10 (10:30), 2015: Triple Line Up Mercury – Jupiter – Neptune  
September 26 (08:00) – 27 (06:30), 2015: Conjunction Mercury - Chiron and the Sun  
September 27 (07:30) – 30 (13:30), 2015: Conjunction Vesta – Earth and the Sun  
September 27 (13:00) – October 3 (20:30), 2015: Triple Line Up Vesta – Earth - Juno  
September 28 (18:00) – October 17 (15:00), 2015: Triple Line Up Juno – Ceres - Neptune  
September 29 (08:30) - October 24 (15:00), 2015: Triple Line Up Jupiter – Vesta – Chiron  
September 29 (14:00)- 30 (10:30), 2015: Opposition Mercury – Juno across the Sun  
September 29 (18:30) - October 5 (20:00), 2015: Triple Line Up Mars – Venus – Neptune  
September 29 (21:00) – October 3 (06:00), 2015: Triple Line Up Mercury – Juno - Vesta  
September 29 (23:30) – 30 (17:00),2015: Conjunction Mercury - Vesta and the Sun  
September 30 (06:30) - 30 (22:00), 2015: Conjunction Mercury - Earth and the Sun  
September 30 (08:00) - October 11 (13:00), 2015: Triple Line Up Mars – Vesta – Chiron (check)  
September 30 (16:30) – October 7 (08:00) , 2015: Triple Line Up Mercury – Vesta – Earth  
September 30 (22:00) – October 3 (05:00), 2015: Triple Line Up Mercury – Juno - Earth  
October 2 (10:30) – 3 (04:00), 2015: Conjunction Mercury – Uranus and the Sun  
October 4 (00:30) – 10 (06:00), 2015: Triple Line Up Neptune – Earth - Mars  
October 7 (14:30) – 8 (03:00), 2015: Conjunction Mercury – Venus and the Sun  
October 8 (06:00) – December 3 (16:00), 2015: Opposition Jupiter – Neptune across the Sun  
October 9 (06:00) – 15 (06:30), 2015: Triple Line Up Mercury – Earth - Vesta  
October 10 (04:00) – 27 (04:00), 2015: Triple Line Up Uranus – Ceres - Pallas  
October 10 (14:30) – 11 (06:00), 2015: Opposition Mercury – Saturn across the Sun  
October 10 (05:30) – 14 (02:30), 2015: Conjunction Earth - Uranus and the Sun  
October 11 (04:00) – 17 (10:30), 2015: Triple Line Up Mars – Venus – Jupiter  
October 12 (12:00) – 22 (08:00), 2015: Triple Line Up Uranus – Venus – Juno  
October 12 (17:30) – November 4 (09:30) , 2015: Conjunction Pallas - Pluto  
October 14 (23:00) – 19 (06:00), 2015: Triple Line Up Venus – Earth - Neptune

October 15 (00:15) – 20 (21:00), 2015: Triple Line Up Jupiter – Earth – Mars  
October 15 (21:30) – 23 (09:30), 2015: Triple Line Up Mars – Venus – Chiron  
October 15 (23:30) – 21 (04:30), 2015: Triple Line Up Pallas – Pluto - Mercury  
October 15 (17:00) – 31 (06:00) , 2015: Triple Line Up Jupiter – Mercury – Neptune  
October 16 (14:30) – 17 (06:30), 2015: Opposition Mercury – Pallas across the Sun  
October 16 (19:00) – 17 (10:30), 2015: Opposition Mercury – Pluto across the Sun  
October 18 (11:30) – 21 (00:30), 2015: Opposition Venus - Saturn across the Sun  
October 20 (06:30) - 26 (11:30), 2015: Triple Line Up Mars – Earth – Chiron  
October 21 (18:30) – 24 (06:00), 2015: Triple Line Up Mercury – Juno – Earth  
October 22 (07:30) – November 15 (15:30), 2015: Triple Line Up Jupiter – Venus – Chiron  
October 22 (15:30)- 23 (10:00), 2015: Opposition Mercury – Ceres across the Sun  
October 23(15:00) – 27 (23:30), 2015: Triple Line Up Jupiter – Venus – Earth  
October 23 (17:30) – 24 (09:30), 2015: Conjunction Mercury - Mars and the Sun  
October 24 (17:30) – 27 (04:00), 2015: Triple Line Up Mercury – Earth – Uranus  
October 24 (21:30) – November 15 (11:00), 2015: Triple Line Up Jupiter – Earth - Chiron  
October 25 (15:30) - 29 (12:30), 2015: Triple Line Up Venus – Earth - Chiron  
October 25 (19:30) – 28 (16:30), 2015: Triple Line Up Mercury – Mars – Ceres  
October 26 (11:30) – 27 (06:30), 2015: Conjunction Mercury – Jupiter and the Sun  
October 26 (14:30) – 27 (11:00), 2015: Opposition Mercury – Neptune across the Sun  
October 28 (23:30) – 29 (22:00), 2015: Opposition Mercury – Chiron across the Sun  
October 29 (04:00) – November 1 (21:30), 2015: Triple Line Up Mercury – Juno – Vesta  
October 29 (14:30) – November 8 (18:00), 2015: Triple Line Up Juno – Earth – Uranus  
October 30 (22:30) – November 5 (22:00), 2015: Triple Line Up Mars – Venus - Earth  
November 2 (10:30) - 11 (00:30), 2015: Triple Line Up Pluto – Pallas - Venus  
November 3 (01:30) – 4 (01:30), 2015: Conjunction Mercury – Juno and the Sun  
November 4 (07:00) – 5 (12:00), 2015: Opposition Mercury – Vesta across the Sun  
November 5 (04:00) – 7 (04:30), 2015: Triple Line Up Mercury – Saturn – Venus  
November 5 (09:30) – 6 (13:30), 2015: Opposition Mercury – Uranus across the Sun  
November 5 (12:00) – 9 (01:30), 2015: Triple Line Up Vesta – Venus - Earth  
November 7 (04:00) – 13 (12:30), 2015: Triple Line Up Vesta – Mars - Earth  
November 8 (00:15) – 13 (14:00), 2015: Triple Line Up Mercury – Vesta – Uranus  
November 11 (12:00) – 13 (23:30), 2015: Opposition Pluto – Venus across the Sun  
November 13 (08:30) – 28 (00:15),2015: Conjunction Uranus - Vesta and the Sun  
November 13 (13:00) – 16 (06:30), 2015: Opposition Pallas - Venus across the Sun  
November 16 (12:30)- 18 (17:00), 2015: Opposition Mercury – Earth across the Sun  
November 19 (18:00) – 29 (14:30), 2015: Triple Line Up Mercury – Jupiter – Ceres  
November 21 (07:30) – 22 (17:00), 2015: Conjunction Mercury – Saturn and the Sun  
November 22 (05:00) – December 1 (12:00), 2015: Opposition Neptune - Mars  
November 22 (05:00) – 25 (15:30), 2015: Triple Line Up Uranus – Venus – Earth  
November 23 (21:00) - 25 (19:30), 2015: Triple Line Up Mercury – Venus - Pluto  
November 24 (00:00) – 26 (10:00), 2015: Triple Line Up Mercury – Saturn – Earth  
November 26 (11:00)– December 14 (11:30), 2015: Triple Line Up Uranus – Juno - Vesta  
November 27 (05:30) – December 4 (22:00), 2015: Conjunction Jupiter - Mars and the Sun  
November 27 (23:30) – December 2 (01:30), 2015: Opposition Saturn – Earth across the Sun  
November 28 (13:00), 2015 – January 4 (14:00), 2016: Triple Line Up Jupiter – Mars – Neptune  
November 28 (16:00) – 30 (08:30), 2015: Triple Line Up Mercury – Venus – Pallas  
December 1 (11:00) – 4 (23:00), 2015: Triple Line Up Venus – Juno – Earth  
December 4 (21:00) – 6 (05:30), 2015: Conjunction Mercury – Pluto and the Sun  
December 5 (16:00) – 9 (03:30), 2015: Triple Line Up Mercury – Mars – Ceres  
December 6 (05:00)- 16 (22:00), 2015: Triple Line Up Pallas – Pluto – Earth  
December 6 (22:30) – 18 (17:00), 2015: Triple Line Up Mercury – Jupiter – Neptune  
December 7 (17:00) – (11:00) 14, 2015: Triple Line Up Earth – Mars - Uranus  
December 7 (08:00) – 8 (12:30), 2015: Conjunction Mercury – Pallas and the Sun  
December 7 (14:30) – 10 (09:30), 2015: Opposition Venus - Ceres across the Sun  
December 8 (14:00) – 28 (13:00), 2015: Triple Line Up Ceres – Juno - Chiron  
December 11 (22:00)- 15 (15:30), 2015: Triple Line Up Mercury – Mars – Neptune  
December 12 (06:30) – 15 (20:00), 2015: Triple Line Up Mercury – Mars – Jupiter  
December 14 (20:00) – 17 (07:30), 2015: Opposition Venus – Neptune across the Sun  
December 15 (21:30) – 16 (09:00), 2015: Triple Line Up Mercury – Venus – Ceres  
December 16 (19:00) – 19 (00:30), 2015: Conjunction Venus – Jupiter and the Sun

December 16 (20:00), 2016 – January 13 (01:30), 2016: Opposition Uranus - Juno across the Sun  
December 17(23:30) – 25 (07:00), 2015: Triple Line Up Uranus – Venus - Vesta  
December 18 (00:30) – 27 (08:00), 2015: Opposition Mars - Chiron across the Sun  
December 18 (08:30) – 19 (22:30), 2015: Triple Line Up Mercury – Venus – Neptune  
December 18 (11:00) – 21 (03:30), 2015: Triple Line Up Mercury – Earth – Pluto  
December 18 (11:45) – 19 (10:30), 2015: Conjunction Mercury – Ceres and the Sun  
December 19 (10:00) – 20 (22:30), 2015: Triple Line Up Mercury – Venus – Jupiter  
December 19 (13:30) – 27 (02:30), 2015: Triple Line Up Mars – Venus – Chiron  
December 20 (21:30) – 21 (20:30), 2015: Conjunction Mercury – Neptune and the Sun  
December 21 (01:30) – 23 (19:00), 2015: Triple Line Up Mercury – Earth – Pallas  
December 21 (16:00), 2015 – January 1 (23:30), 2016: Triple Line Up Jupiter – Mars - Ceres  
December 21 (16:30) – 22 (15:30), 2015: Opposition Mercury – Jupiter across the Sun  
December 21 (17:00) – 24 (05:00), 2015: Opposition Venus – Chiron across the Sun  
December 22 (00:15) – 25 (05:30), 2015: Triple Line Up Mercury – Mars – Chiron  
December 22 (02:30) – 24 (00:30), 2015: Conjunction Venus – Mars and the Sun  
December 22 (05:30), 2015 – January 22 (06:30), 2016: Triple Line Up Jupiter – Neptune - Ceres  
December 22 (13:00), 2015 – January 17 (02:00), 2016: Triple Line Up Jupiter – Venus – Neptune  
December 22 (19:30) – 24 (08:00) , 2015: Triple Line Up Mercury – Venus – Chiron  
December 22 (21:00) – 24 (04:00), 2015: Triple Line Up Mercury – Venus – Mars  
December 23 (13:00) – 24 (10:30), 2015: Conjunction Mercury – Chiron and the Sun  
December 23 (15:00) - 24 (15:00), 2015: Opposition Mercury – Mars across the Sun  
December 23 (21:00) – 25 (06:00), 2015: Opposition Mercury – Venus across the Sun  
December 25 (01:00), 2015 – January 7 (20:30), 2016: Triple Line Up Mars – Neptune - Ceres  
December 27 (07:30) – January 1, 2016 (17:30), 2015: Triple Line Up Mercury – Juno - Uranus  
December 29 (14:00) – 30 (07:30), 2015: Conjunction Mercury – Uranus and the Sun  
December 29 (13:30) – 30 (07:30), 2015: Opposition Mercury – Juno across the Sun  
December 29 (17:30), 2015 – January 3 (18:00), 2016: Triple Line Up Juno – Venus – Vesta  
December 31 (09:30) – January 1, 2016 (01:30), 2015: Conjunction Mercury - Vesta and the Sun  
December 31 (10:00), 2015 – January 9 (07:00), 2016: Triple Line Up Neptune – Venus – Ceres  
December 31 (13:30), 2015 – January 7 (15:00), 2016: Triple Line Up Jupiter – Venus - Ceres  
January 1 (04:00) – 21 (20:00), 2016: Triple Line Up Vesta - Pluto – Ceres  
January 2 (12:45) – 3 (22:30) , 2016: Triple Line Up Uranus – Mercury - Venus  
January 3 (00:30) – 14 (13:00) , 2016: Triple Line Up Vesta – Uranus - Mars  
January 4 (00:00) – 5 (07:30), 2016: Triple Line Up Juno – Venus – Mercury  
January 4 (04:00) – 8 (05:00), 2016: Opposition Pluto – Earth across the Sun  
January 5 (06:00) – 6 (12:00), 2016: Triple Line Up Vesta – Venus – Mercury  
January 6 (13:30) – 12 (15:30), 2016: Triple Line Up Vesta – Juno – Mercury  
January 7 (00:00 – 15:30) , 2016: Opposition Mercury – Saturn across the Sun  
January 7 (14:00) – 10 (18:00), 2016: Triple Line Up Saturn – Venus – Earth  
January 8 (18:30) – 11 (06:30) , 2016: Opposition Uranus – Venus across the Sun  
January 9 (01:30) – 15 (16:00), 2016: Triple Line Up Mars – Venus – Ceres  
January 10 (01:00?) – 22 (01:00), 2016: Triple Line Up Juno – Venus – Uranus  
January 10 (01:00) – 12 (04:00), 2016: Conjunction Juno – Venus and the Sun  
January 11 (15:30) – 13 (17:30), 2016: Triple Line Up Earth – Mercury - Pallas  
January 12 (20:30) – 13 (12:00) , 2016: Opposition Mercury - Pluto across the sun  
January 13 (20:30) – February 9 (10:30), 2016: Triple Line Up Juno – Pallas – Neptune  
January 14 (07:30 – 20:30) , 2016: Conjunction Mercury – Earth and the Sun  
January 14 (23:00) – 15 (15:30) , 2016: Opposition Mercury – Pallas across the sun  
January 17 (00:15) – 21 (15:00) , 2016: Opposition Earth - Pallas across the sun  
January 17 (06:30) - 27 (05:00), 2016: Triple Line Up Neptune – Venus – Mars  
January 17 (06:00) – 20 (04:00) , 2016: Opposition Venus - Vesta across the sun  
January 18 (09:30) – 25 (10:30) , 2016: Triple Line Up Juno – Mercury - Vesta  
January 19 (18:30) – February 2 (12:30), 2016: Triple Line Up Pluto –Mercury – Earth  
January 21 (23:00) – 28 (09:30), 2016: Triple Line Up Juno – Mars – Earth  
January 21 (23:00) – 22 (19:30) , 2016: Opposition Mercury - Ceres across the sun  
January 22 (16:00) – 23 (13:00) , 2016: Opposition Mercury – Neptune across the sun  
January 22 (17:00) - 24 (12:30), 2016: Triple Line Up Mercury – Venus – Saturn  
January 23 (22:00) – 24 (18:30) , 2016: Conjunction Mercury – Jupiter and the Sun  
January 24 (23:00) - 30 (02:00), 2016: Triple Line Up Neptune – Ceres - Mercury  
January 25 (04:00) – 26 (02:30) , 2016: Opposition Mercury - Chiron across the sun

January 29 (06:30) – 30 (04:30) , 2016: Conjunction Mercury – Mars and the Sun  
 January 30 (17:30) - February 9 (23:30), 2016: Triple Line Up Vesta – Uranus – Earth  
 January 30 (22:00) - February 5 (07:30), 2016: Triple Line Up Jupiter – Mercury - Ceres  
 January 31 (04:30) – February 20 (02:00), 2016: Conjunction Neptune – Ceres and the Sun  
 February 1 (15:30) – 2 (19:00) , 2016: Opposition Mercury - Uranus across the sun  
 February 2 (14:30) – 15 (22:30),2016: Triple Line Up Venus – Ceres – Chiron  
 February 3 (04:30) ) – 4 (06:30), 2016: Conjunction Mercury – Juno and the Sun  
 February 4 (11:00) – 7 (15:30),2016: Triple Line Up Venus – Pluto - Earth  
 February 5 (16:30) – 23 (21:30), 2016: Triple Line Up Saturn – Pallas – Ceres  
 February 7 (05:30) – 8 (15:30), 2016: Opposition Mercury - Vesta across the sun  
 February 8 (15:00) – 23 (01:30) , 2016: Triple Line Up Jupiter – Mercury - Neptune  
 February 9 (05:00) – 11 (14:00), 2016: Conjunction Venus – Saturn and the Sun  
 February 9 (15:00) – 22 (23:00), 2016: Triple Line Up Chiron – Mars - Ceres  
 February 11 (06:00) – March 11 (06:00) , 2016: Triple Line Up Juno – Mercury - Uranus  
 February 12 (02:30) – March 5 (12:30) , 2016: Triple Line Up Jupiter – Earth – Chiron  
 February 13 (05:00) – March 9 (05:30) , 2016: Triple Line Up Neptune – Venus – Jupiter  
 February 16 (14:00) – 24 (14:30) , 2016: Triple Line Up Mercury – Venus - Pluto  
 February 16 (16:30) – 26 (12:30) , 2016: Triple Line Up Neptune – Ceres – Earth  
 February 18 (06:00) – 19 (17:30), 2016: Conjunction Mercury – Saturn and the Sun  
 February 20 (14:00) – 23 (03:00), 2016: Triple Line Up Mercury – Earth - Pallas  
 February 21 (08:30) – March 10 (17:00) , 2016: Triple Line Up Chiron – Mercury – Ceres  
 February 21 (16:30) – 29 (03:00), 2016: Triple Line Up Chiron – Venus – Mars  
 February 22(14:30) – March 2 (11:30), 2016: Opposition Mars – Uranus across the sun  
 February 25 (22:00) – 28 (16:30) , 2016: Triple Line Up Venus – Earth - Pallas  
 February 26 (16:00) – March 1 (16:00) , 2016: Opposition Earth - Neptune across the sun  
 February 28 (21:00) – March 7 (12:00), 2016: Triple Line Up Mars – Venus – Ceres  
 February 28 (23:45) – March 6 (23:30) , 2016: Triple Line Up Juno – Mars – Vesta  
 February 29 (12:00) – March 1 (16:00), 2016: Conjunction Mercury – Venus and the Sun

### References

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