

# Qué tal? in the Current Skies

Volume 18 -- Issue 2  
February 2012

home

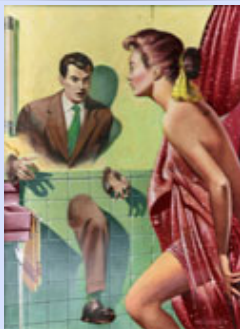
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Click [here](#) to read or download scanned copies of **Peon**, one of the original Scifi FanZines.

Welcome to this issue of Qué tal. Here you will find useful **observing information** about the **visible planets**, **our Moon** and **other moons**, the **Sun**, as well as various 'things' celestial.

Among these web pages you will find monthly star maps for either the northern or southern hemisphere that are suitable for printout. Animated images are utilized to illustrate celestial motions such as orbital motions of the planets, and other solar orbiting objects or apparent and real motions along the ecliptic and the local horizon. Regular features include plotting the monthly positions of the visible planets using heliocentric coordinates; following moon phases; conjunctions; the sun's apparent motion and the Earth's real motion along the ecliptic.

*This month there are several planets visible, with Venus and Jupiter sort of dominating the evening skies over the southwestern horizon. Keep an eye on these two as they move closer to each other toward a close conjunction next month. Later in the evening and then shortly after midnight Mars and then Saturn rise and remain very visible for the remaining night hours. Mercury moves from behind the Sun and superior conjunction into the evening skies and gradually becomes visible over the western horizon at sunset toward the end of the month.*

*Depending on your time zone, there may be no first quarter Moon this month! Comet Alert: Comet Garradd (C/2009 P1) is estimated to reach an apparant magnitude of around 7 meaning that it could be seen in binoculars and certainly telescopes.*

*Tell someone about Qué tal? in the Current Skies. Click [here](#).*

**[E-Mail Starwalk](#) -- [Previous Issue](#) -- [Privacy Statement](#) -- [Credits & Some Particulars](#)**



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## Sky Watch Calendar -- February 2012

01. Moon Near [The Pleiades](#)
02. Moon Near [Aldebaran](#)
05. Moon Near [Gemini](#) Twins
07. **Full Moon**  
Mercury at Superior Conjunction
08. Saturn Begins retrograde Motion  
Moon Near [Regulus](#)
09. Moon Near [Mars](#)
11. **Moon at Perigee - 367 922 km**
12. Participate in [Globe at Night](#)  
Moon Near [Spica](#)
13. **Last Quarter Moon**  
Moon Near [Saturn](#)
15. Moon Near [Antares](#)
17. The Sun Enters the Astronomical Sign Of [Aquarius](#)  
Neptune in Solar Conjunction  
Comet [Garradd](#) (C2009 P1)
19. The Sun Enters the Astrological Sign of Aquarius  
[Cassini](#) Flyby of Titan
21. **New Moon**
22. Moon Near [Mercury](#)  
Mars Begins [Retrograde](#)
25. Moon Near [Venus](#)
26. Moon Near [Jupiter](#)
27. **Moon at Apogee - 404 862 km**
28. Moon Near The [Pleiades](#)  
[Leap Day](#)
29. [Mercury](#) returns to the Evenin Sky  
Moon Near The [Hyades](#)



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## Planet Watch -- February 2012

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**Mercury** is not visible until the last half of the month as it moves out from behind the Sun and superior conjunction. Start watching for the innermost planet over the western horizon shortly after sunset.

**Venus** continues to shine brightly over the western horizon at sunset as it sets a little later each evening while it moves further toward the west away from the Sun.

**Mars** rises around mid-evening this month and continues to shine brightly to the left, east, from Regulus in Leo. Mars will brighten noticeably this month and grow larger in apparent diameter as it moves toward opposition early next month. The 'red planet' continues its retrograde motion this month. Click [here](#) to see a table showing the coordinate positions and distance from Earth during the retrograde motion period.

**Jupiter** shines about half as bright as Venus from its location above the southwestern horizon at sunset. Watch for these two bright planets move closer to each other this month as they move toward a close 'encounter' next month.

**Saturn** rises around midnight this month and is easily seen to the left and above the bright blue-white star Spica in Virgo. On the 8th Saturn begins its retrograde loop.

**Comet Gararadd (C/2000 P1)** may reach a maximum apparent magnitude of 7 this month meaning that under dark enough skies it should be visible using binoculars and certainly visible using a telescope. The comet will track from near the 'Keystone' of Hercules across Draco and the Little Dipper as this [animated graphic](#) shows. Watch toward the end of the animation for the stars of the Big Dipper to swing into view on the left side of the graphic. Each screen change is one day. On the morning of February 19 the comet will be at maximum brightness of 7.03 and will be close to 3rd magnitude Alhambra in Draco. If you imagine the two brightest stars in the cup of the Little Dipper as pointer stars then they will be pointing toward Alhambra and the comet on the [19th](#).

Click [here](#) to see a graphic set for mid-month showing the solar system as seen from an overhead perspective.



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## Above the Solar System -- February 2012

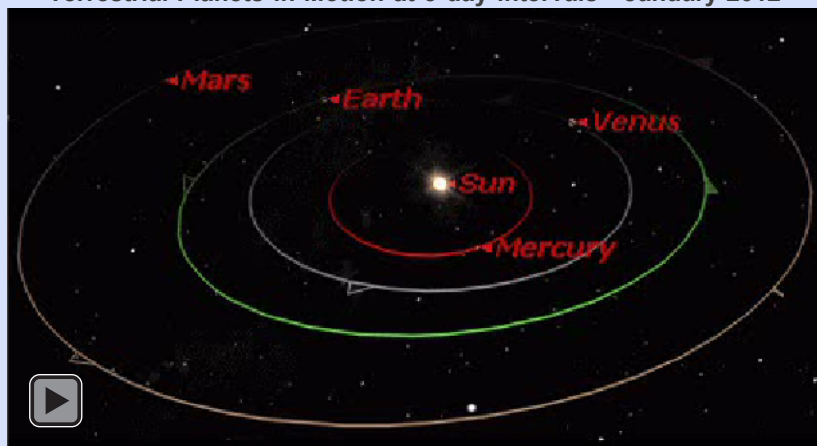
Row 3

Name	February 05	February 15	February 25
Mercury	309° 48'	348° 02'	039° 12'
Venus	058° 51'	074° 56'	091° 04'
Earth	135° 34'	145° 41'	155° 46'
Mars	151° 29'	155° 51'	160° 13'
Jupiter	044° 16'	045° 11'	046° 05'
Saturn	203° 53'	204° 12'	204° 32'

This uses a coordinate system which allows for the plotting of a planet position along its orbital path using degrees ( $0^{\circ}$  to  $360^{\circ}$ ) of heliocentric longitude. Once plotted the orbital position of one planet could be compared with that of another planet. Or the relative orbital speeds of an inner planet could be compared with that of an outer planet.

Plot planet positions using polar graph paper or the provided activity sheet.

Terrestrial Planets in Motion at 5 day intervals - January 2012



Explore our Solar System with this really cool tool. Click [here](#) to go to the Solar System Scope web site.



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## What's Up? -- February 2012

### Groundhog Day

It has become a tradition in the United States to watch for a ground hog to emerge on the 2nd of February. We know this as Groundhog Day, an event that originates from ancient Celtic tradition. Groundhog Day was known as Imbolg, or sheep's milk, a time for nurturing young sheep and planting spring crops. The belief arose that if Imbolg were to be sunny and clear, then winter's effects would endure, foreshadowing a long winter. However, if skies were overcast, then the warmer days of spring would arrive early. To farmers then and today, an early spring means early spring planting and a subsequent early harvest. Often fires were lit to commemorate the event as fires were a sign of warmth and light, both of which increased as days lengthened.



*Be afraid of your shadow...*

German immigrant farmers are credited with bringing Groundhog Day with them to the United States as they settled in Pennsylvania. To them, February 2 was called Candlemas Day, because of the practice of lighting candles on this day in celebration of early planting. The Germans believed that the badger was able to predict the weather on the basis of whether or not its shadow appeared. If the badger, or ground hog, saw its shadow on Candlemas it would be scared and return to its burrow for another six weeks--to sleep through the long winter. However if the skies were overcast then no shadow would appear, and an early warm spring would be expected.

So year after year, since 1898, crowds have gathered in Punxsutawney, Pennsylvania on February 2 to wait for a certain ground hog to emerge from its burrow. Today the belief in this as a predictor of weather is not nearly as consequential as it appears despite all the hoopla created by the news media. Yet there is some scientific rationale to the ritual, albeit not in the accuracy of the forecast. When the skies are clear temperatures tend to be cold as the ground radiates heat absorbed during the day back into the atmosphere. When skies are overcast, temperatures tend to moderate as clouds trap heat nearer the ground.



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## Things to Read or Do

### **Aunt Nan's Star**

Uncle Ron bought Aunt Nan a star. Did he get his money's worth?

### **Aunt Nan's Missing Star**

Aunt Nan cannot find her star! But now she can see the city lights of Oakdale. Part of the Mid-Continent Council of Girl Scouts **Plugged-In Project** -- Issue 102Light Pollution

### **The Geminid Meteor Shower**

This often overlooked annual meteor shower offers up quite a display. And its source October just be an asteroid.

### **Space Explorers That Keep On Going**

The venerable Pioneer and Voyager spacecraft are like that rabbit on TV. They just keep on going!

### **An Eggs-citing Equinox**

This month why not cook the egg, drink some juice and have a balanced meal!

### **What Is The Shape Of The Earth?**

A globe, Mercator map, golf tees, and some sunshine can be used to easily show the shape of our planet.

### **How Our Moon Has Phases**

Use a 'ball-on-a-stick' on any sunny morning when the waning crescent moon is visible to clearly show how moon phases occur.

### **An Exploration of the Earth's Tilt & Seasons**

Use the [freeware](#) program Sun Clock for Windows and explore how the tilt of the Earth affects how much daylight and night we have each season. Click [here](#) to download the free program.

### **Using Shadows To Determine Compass Directions**

Shadows, sticks, and the sun can be used to tell directions and time.

### **Graphing The Changing Length of Day & Night**

Graphing the length of day and the length of night throughout the year can reveal interesting patterns.

### **Shadows and Circumference**

Measuring the Earth's circumference can be done using shadows and angles. No way - yes way! Just Ask Eratosthenes!

### **Me and My Shadow**

Measure the Sun's angle above the horizon at mid-day as the Earth revolves around the Sun.

*(Also available as a [PDF file](#))*

**Qué tal** is now available in [Belorussian](#) as translated by Bohdan Zograf



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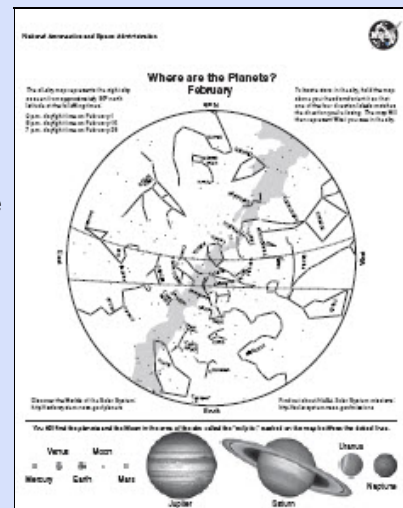
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## Star Stuff

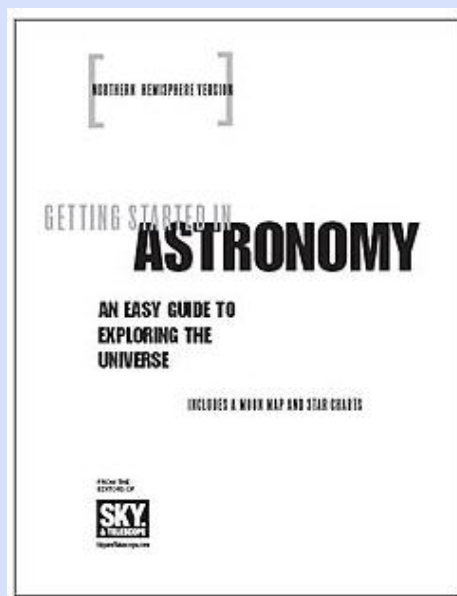


Download either Hemisphere from 'The Evening Sky Map'.

Click on the image to download a star map (PDF) for this month or click [here](#) to download a complete set of monthly star maps (PDF) developed by NASA.



Download the free "[Getting Started in Astronomy](#)" from Sky & Telescope Magazine. This is a 10-page PDF file that includes six great bi-monthly sky maps for either the northern or southern hemisphere, and a guide to observing lunar surface features.



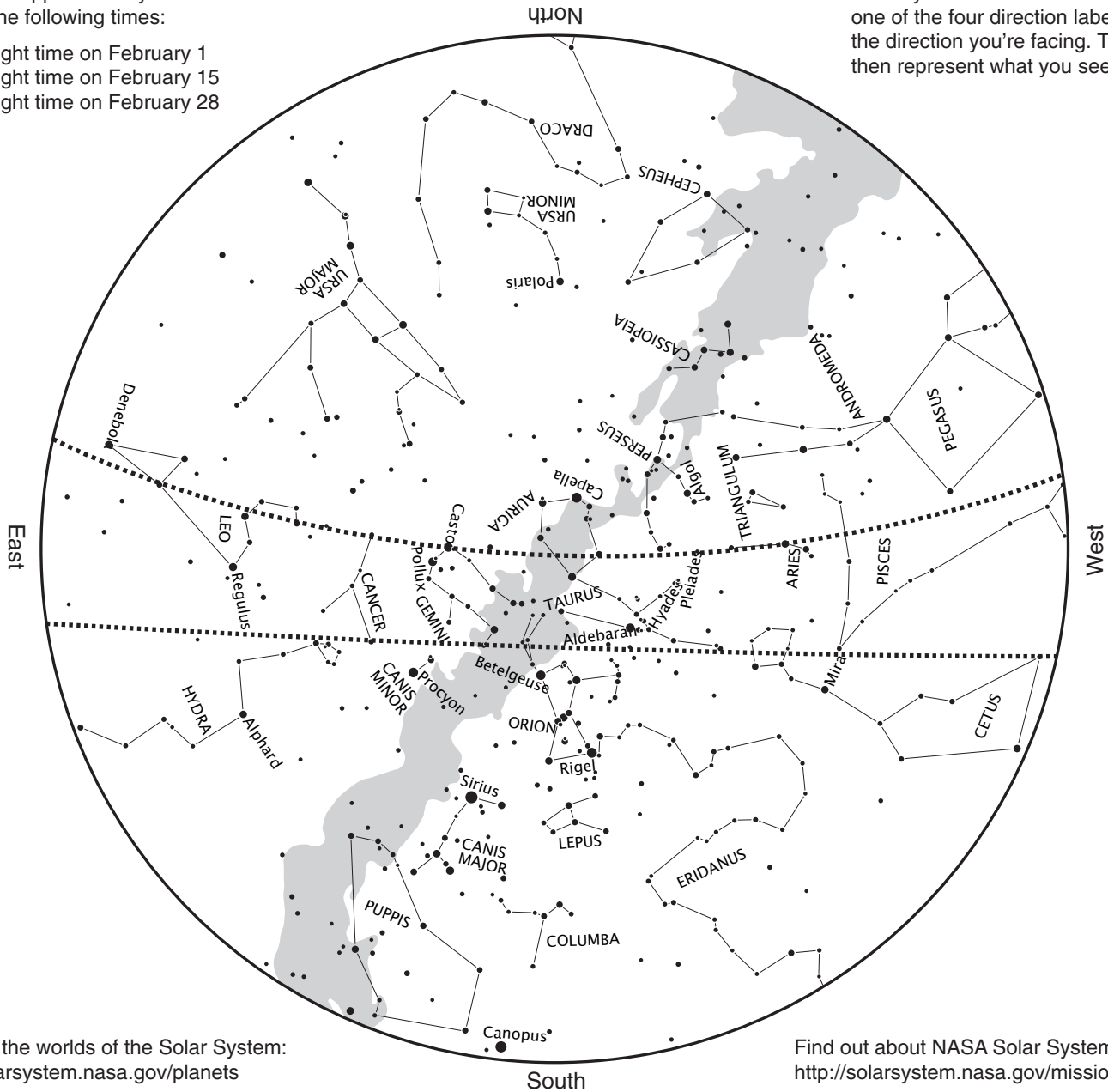


# Where are the Planets? February

The all-sky map represents the night sky as seen from approximately 35° north latitude at the following times:

- 9 p.m. daylight time on February 1
- 8 p.m. daylight time on February 15
- 7 p.m. daylight time on February 28

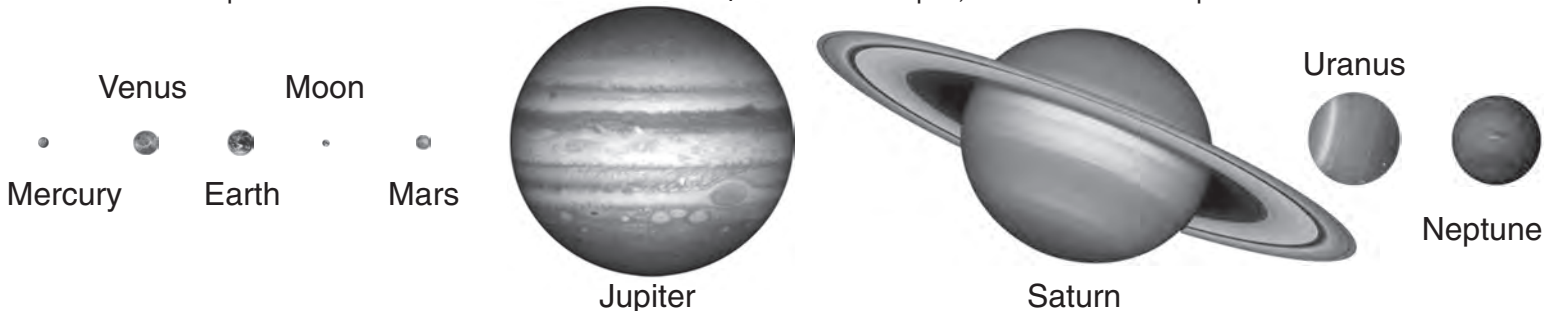
To locate stars in the sky, hold the map above your head and orient it so that one of the four direction labels matches the direction you're facing. The map will then represent what you see in the sky.



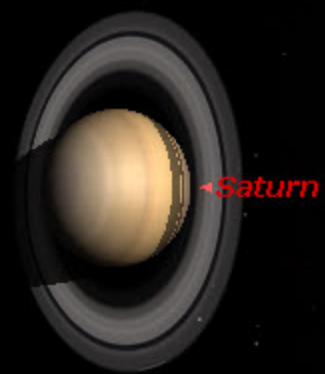
Discover the worlds of the Solar System:  
<http://solarsystem.nasa.gov/planets>

Find out about NASA Solar System missions:  
<http://solarsystem.nasa.gov/missions>

You will find the planets and the Moon in the area of the sky called the "ecliptic," marked on the map between the dotted lines.







← Saturn



← Mars



← Earth



← Sun



← Mercury



← Venus



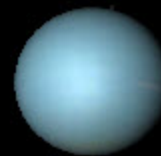
← Vesta



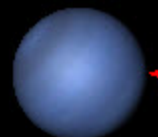
← Ceres



← Jupiter



← Uranus



← Neptune

February 15 2012