



# Sky Watch

Issue #2-07  
February

## The Newsletter of the Brevard Astronomical Society

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### Summary of Jan meeting:

Oscar provided a re-cap of the Jan 11th West Melbourne School of Science Star Party. Good support, appreciative group, but cloudy weather hampered the event.

### Upcoming BAS Meetings & Agenda:

**Feb 21<sup>st</sup> -**  
Gary Scott has requested that different members chair and set the agenda. Bill Manley will do the Feb mtg. Look for a separate e-mail the coming week or so. What has been coordinated to date is that KSAA member Mike Cressy will be giving a presentation on Dew Heaters, and general Astronomy electronics.

### Upcoming BAS Star Parties:

Feb 10th – Harmony  
Feb 17th – Shilo

### Moon Phases:

Full: Feb 2nd



New: Feb 17th



Well weren't we all *surprised* in January with a little comet named "McNaught". What other ones are heading toward us that we don't know about is the obvious question to me...!

**Comet McNaught** was barely visible to us on the east coast a few evenings in early January, but I haven't heard any reports of direct sightings. I tried from my roof top, but to no avail. However, observers in the U.S. western sky got an eye full (LA). I had one person who saw it tell me it looked like a "brilliant bright planet". It was (is?) also quite visible to observers in the southern hemisphere at an approx mag of -5; brightest in 40 years they say. For us, its "better luck next comet"!.....

### ***What's in the Sky in Feb?***

I would like to suggest that one of the areas of interest this time of year are a series of open star clusters in the constellations **Canis Major, Puppis & Monoceros**, to the S-SE in the evening sky. Of course the "star" of Canis Major is Sirius, positioned a mere 8.6 ly from the earth. It is the closest star to us in the northern hemisphere. It is a variable binary, with its very small companion less than 10" apart (not visible because of the brightness of Sirius). To steal a line from John Norczyk; *did you know that* the phrase "Dog days of summer" is related to Sirius? (yes, I'm serious!) In ancient times, Sirius rose in the summer months in Egypt & ancient Babylon, so they associated the "Dog Star" with the hottest days of the year.

There are several Messier and NGC objects in Canis Major and this general area of the sky. The first notable one is the **Little Beehive cluster M41**, at 2300 ly distant. M41 is an open cluster very easy to find:



After M41; star hop over (up & to the left approx 13 deg) to **M50** in Monoceros (3000 ly). M50 is just about half way between Sirius and delta ( $\delta$ ) Monoceros. Next, come down (about 10 deg), and slightly left to find **M46** (5400 ly), and **M47**, or approx 2/3 of the way toward Alpha Monoceros, & star Wesen in Canis Major. M47 is next to M46 visually, but a mere 1600 ly distant to us. It is dimmer but my favorite of the bunch because of the detail revealed. (It almost looks like an "open Globular"). Next, Find **M48** (actually in Hydra) near zeta Monoceros. Last but not least, travel back down toward the tail of Canis Major and find **M93** in Puppis (3600 ly). It is only 1.5 deg up from the star Asmidiske in Puppis.

If nothing else, you will be able to check another 6 Messier Objects off your list after completing this trek through the SSE sky! If you have a good low horizon toward the SSE (or south at transit...), check out open clusters NGC2451 and NGC 2477 in Puppis (down to the left approx 5 deg off the tail of Canis Major). They are easy to find at an apparent magnitude of 3.0 and 5.0 respectively.

### **The Moon Mark your calendar for a total lunar eclipse on March 3<sup>rd</sup>!**

The tricky part is that it will rise in the east eclipsed at dusk for us on the east central Florida coast, so observing time of the total eclipse will be limited to about 1/2 hour. Here are the particulars:

Penumbral begins- 20:18:11 UT  
Partial begins- 21:30:22 UT  
Total eclipse begins- 22:44:13 UT  
**MOON RISE- 23:22:30 UT  
(18:22:30; or 6:22pm EST)**  
Total eclipse ends- 23:57:37 UT  
Partial eclipse ends- 1:11:28 UT

### **PLANETS:**

**Mercury reaches maximum elongation on the 7<sup>th</sup> of February**, 18 degrees East of the sun. This will be the best time to observe the planet until later this year, so take advantage of it if the weather permits!



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## PLANETS Con't:

**Saturn** begins rise in the east earlier in the evening in February and transits at approx midnight by mid month. Saturn reaches opposition Feb 10th. **Venus** will be visible in the west in the early evening, setting approx 8:15 by mid month. **Uranus** will be only 0.7 deg NW of Venus on the 7<sup>th</sup>, but it sets by 8pm, so it is a long shot to view. **Jupiter** will rise by approx 2:30 am by 2/18, beginning its annual trek into the evening sky by early summer. **Mars** begins to rise a little earlier for the morning observers. It will rise by 5:15am by mid Feb.

## Outreach News:

March 9<sup>th</sup> - Harbor City Service Unit Girl Scout Camporee Star Party. Wickham Park youth area, Melbourne, FL. See the BAS website or contact Oscar Sifuentes to volunteer.

## Club Telescope News:

The BAS currently has two telescopes for use by club members. Contact Bill Manley (Newsletter Editor e-mail) for additional information.

The 16" Dob remains at the planetarium.

The 8" Orion has been loaned out to Rich Rosa.

## by John Norczyk:

### Did you know?

The first star maps and catalogs were produced by the Babylonians as early as 1800 BC. Hipparchus made his detailed charts and catalogs about 134 BC. [http://en.wikipedia.org/wiki/Timeline\\_of\\_astronomical\\_maps%2C\\_catalogs%2C\\_and\\_surveys](http://en.wikipedia.org/wiki/Timeline_of_astronomical_maps%2C_catalogs%2C_and_surveys).

## Submitted by John Norczyk:

### **Basic Star Maps and Guides**

Star maps and guides are a must for any amateur astronomer. Whether you are learning the constellations or searching for deep sky objects requires some graphical assistance, either in print or on the computer screen. There are many options and certainly you will develop one or more favorites.

Charts and programs can be costly and you want to be sure of your choices before you spend your money. It is wise to get some insight from a fellow amateur. My discussion here is going to be very basic.

My first purchase as an amateur astronomer was **Norton's Star Atlas**. It provides star charts along with a large amount of information that is adequate for most amateur work. I highly recommend it. It lists for \$29.95. Last month I mentioned the **Observers Handbook 2007** as another valuable resource. There are many other guides such as **The Year-Round Messier Marathon Field Guide** (24.95), **The Night Sky Observer's Guide, Volumes 1 and 2** (34.95 each) as well as **Burnham's Celestial Handbook** (19.95).

Electronic charts have become very popular. I don't like to spend money if I don't have to. I do have **Starry Night Pro** and have found it very useful. My favorite program, however, is one called **Stellarium**. It's **FREE**. It has many of the bells and whistles of **Starry Night** and **The Sky**. It is easy to use, and in my opinion quite good. You can go to [brevardastro.org](http://brevardastro.org) and find it on the links page. You can use the Print Screen function of your computer to get hard copies of charts. It covers stars to magnitude 10, Messier and NGC objects as well as the current position of the Moon and planets. I have found these electronic programs very useful for star identification. I have used it with a projector on the walls of the observatory deck. Our visitors found it very amusing when I toggled on the constellation art work.

More rigorous star charts and atlases in print include **Uranometria 2000.0 Deep Sky Atlas** Volumes 1 and 2 (49.95 each) and the **Deep Sky Field Guide** (59.95).

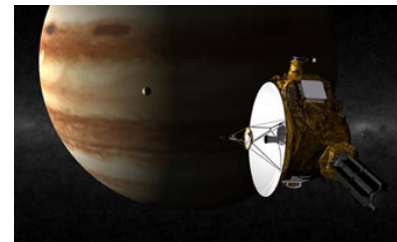
On line I have found a web site <http://www.r-clarke.org.uk/astrosoft1.htm> which lists shareware, freeware and commercial programs. Listed as Sky Charts is the free program Cartes du Ciel Sky Charts.

<http://www.stargazing.net/astropc/index.html>  
This program is a little more challenging to maneuver, but it allows the use of many different star catalogs, printing of customized

charts, and (if you have the hardware and knowledge), the ability to link to your telescope. As I said before, I don't like to spend money so I find this program very promising.

Some of the volumes mentioned may be available at a discount from the planetarium if we can place prepaid orders. If there is enough interest to do this I will arrange an order.  
JN

## Featured Science Article: **New Horizons Sets Its Sights on Jupiter:**



NASA's New Horizons spacecraft is on the doorstep of the solar system's largest planet. The spacecraft will study and swing past Jupiter, increasing speed on its voyage toward Pluto, the Kuiper Belt and beyond.

The fastest spacecraft ever launched, **New Horizons will make its closest pass to Jupiter on Feb. 28, 2007.** Jupiter's gravity will accelerate New Horizons away from the sun by an additional 9,000 miles per hour, pushing it past 52,000 mph and hurling it toward a pass through the Pluto system in July 2015.

The New Horizons mission team will use the flyby to put the probe's systems and seven science instruments through the paces of more than 700 observations of Jupiter and its four largest moons. The planned observations from January through June include scans of Jupiter's turbulent, stormy atmosphere; a detailed survey of its ring system; and a detailed study of Jupiter's moons.

Source:

[http://www.nasa.gov/mission\\_pages/newhorizons/.html](http://www.nasa.gov/mission_pages/newhorizons/.html)

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