Monthly Notices of the Everglades Astronomical Society

Naples, FL
November 2010

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President's Message

Our event at Lover's Key State Park went well. The Sun was very active. We had plenty of solar scopes and help as well as 3 tables of Astronomy related materials. The moon was up part of the day and provided another target. Mike had his 10" reflector on it. We continue to get the word out, there's a club in town – come join us. And on that note, we will meet on Tuesday November 9th at the Norris Center on the corner of 8th & 8th at 7:00pm. This month's meeting will be on eyepieces and focusers, and will be delivered by a number of different speakers. Let us know what you think of our recent focus on practical astronomy. In the future, should we have more or less?

We have many programs this season and more keep popping up! My thanks go out to those of you who come out to our events and help in anyway you can.

Hope to see you at the meeting.
Clean glass and clear skies.

Rick Piper.

Dates for the "Fak"

Usually the best times to go out to the Fakahatchee Strand viewing site are moonless nights. Below is a list of upcoming Saturday nights that you will often find fellow club members out there enjoying the skies with you (weather permitting).

Date	Sun Set	Moonrise	Moonset
Nov 6	6:42 p.m.	8:06 a.m.	7:01 p.m.
Nov 27	5:35 p.m.	11:34 p.m.	11:48 a.m.

Next Meeting

Nov 9, 2010
Time 7:00 – 9 pm
At the Norris Center, 755 8th Avenue South, Naples, FL

Sky Events

Nov 6 -- New Moon
Nov 13 -- First Quarter Moon
Nov 21 -- Full Moon
Nov 28 – Last Quarter Moon

Meteor Shower:
Meteor Shower: Leonid
Radiant and direction: Leo (E)
Morning of maximum: Nov. 18
Hourly rate: 10-20
Parent body: 55P/Tempel-Tuttle

Visible Comet:
Comet Hartley 2 may be visible by end of Sept. through November with binoculars. Located near the constellation Cassiopeia in the NE sky. See the star chart at the end of the news letter.

NASA to Host Live Events for November 4 Comet Encounter
The public is invited to a free lecture on Nov. 2 by the discoverer of comet Hartley 2, Malcolm Hartley. The lecture will take place at JPL's von Karman Auditorium at 7 p.m. PDT. Hartley, a resident of Coonabarabran, Australia, discovered the comet on March 15, 1986. More information on the lecture, called "NASA's Going to My Comet," is online at: http://www.jpl.nasa.gov/events/lectures_archive.cfm?year=2010&month=11 . The event will also be carried live at http://www.ustream.tv/nasajpl2 , with question-and-answer capability.

Start Parties:

2010 CSPG Fall Star Party - $30 donation requested.
November 1-7, 2010 Chiefland Florida
2 Day Sky Imaging Workshop - $400
Latitude 29o 24' 29.52" N Longitude 82o 51' 38.52" W

http://www.fallstarparty.com

Astronomical Trivia Question of the Month

Giovanni Demisiani in 1611 invented the word "telescope" to describe one of Galileo Galilei's instruments. What name did Galileo use to descried his optical inventions?

a. an opticulous.
b. a perspicillum.
c. a good way to get into trouble.

**Answer on next page.*

Close Encounters with Jupiter
by Dr. Tony Phillips

Jupiter and Earth just had a close encounter—and it was a good one. In late September 2010, the two worlds were 31 million km (about 19 million miles) closer than at any time in the past 11 years. Soaring high in the midnight sky, Jupiter shone six times brighter than Sirius and looked absolutely dynamite through a backyard telescope.

Planetary scientist Scott Bolton of the Southwest Research Institute isn't satisfied. "I'd like to get even closer," he says.

Bolton will get his wish in July 2016. That's when a NASA spacecraft named "Juno" arrives at Jupiter for a truly close-up look at the giant planet. Swooping as low as 5,000 km (about 3,000 miles) above the cloud tops, Juno will spend a full year orbiting nearer to Jupiter than any previous spacecraft.

The goal of the mission is to learn what lies inside the planet.

Astronomers have been studying Jupiter since the invention of the telescope 400 years ago, but in all that time the planet's vast interior has remained hidden from view. Even the Galileo probe, which dived into the clouds in 1995, penetrated no more than about 0.1% of Jupiter's radius.

"Our knowledge of Jupiter is truly skin deep," says Bolton, Juno's principal investigator. "There are many basic things we just don't know—like how far down does the Great Red Spot go? And does Jupiter have a heavy core?"

Juno will improve the situation without actually diving into the clouds. Bolton explains how. "Juno will spend a full year in close polar orbit around Jupiter, flying over all latitudes and longitudes. We will thus be able to fully map Jupiter's gravitational field and figure out how the interior is structured."

But that's not all. Researchers have good reason to believe that much of Jupiter's interior is filled with liquid metallic hydrogen, an exotic metal that could form only in the high-pressure, hydrogen-rich core of a giant planet. Jupiter's powerful magnetic field almost certainly springs from dynamo action inside this vast realm of electrically conducting metal.

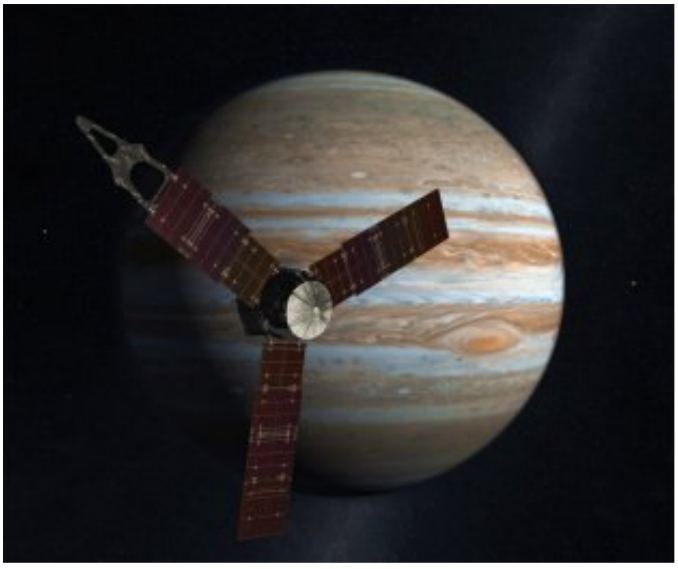
"Juno's magnetometers will precisely map Jupiter's magnetic field," says Bolton. "This map will tell us a great deal about planet's inner magnetic dynamo—what it's made of and how it works."

Finally, Juno will probe Jupiter's atmosphere using a set of microwave radiometers. "Our sensors can measure the temperature 50 times deeper than ever before," says Bolton. Researchers will use that information to figure out how much water is underneath Jupiter's clouds. "Microwave measurements of Jupiter's water content are particularly exciting because they will help discriminate among competing theories of the planet's origin."

Now that's a close encounter. Stay tuned for Juno.

Find out more about the Juno mission at http://www.nasa.gov/mission_pages/juno .
Play the new Solar System Explorer super game, which includes the Juno Recall mini-game at http://spaceplace.nasa.gov/en/kids/solar-system .
It's not just for kids!

This article was provided courtesy of the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.



Caption: *The Juno mission, arriving at Jupiter in July 2016, will help to solve the mystery of what's inside the giant planet's core.*

Set For Launch

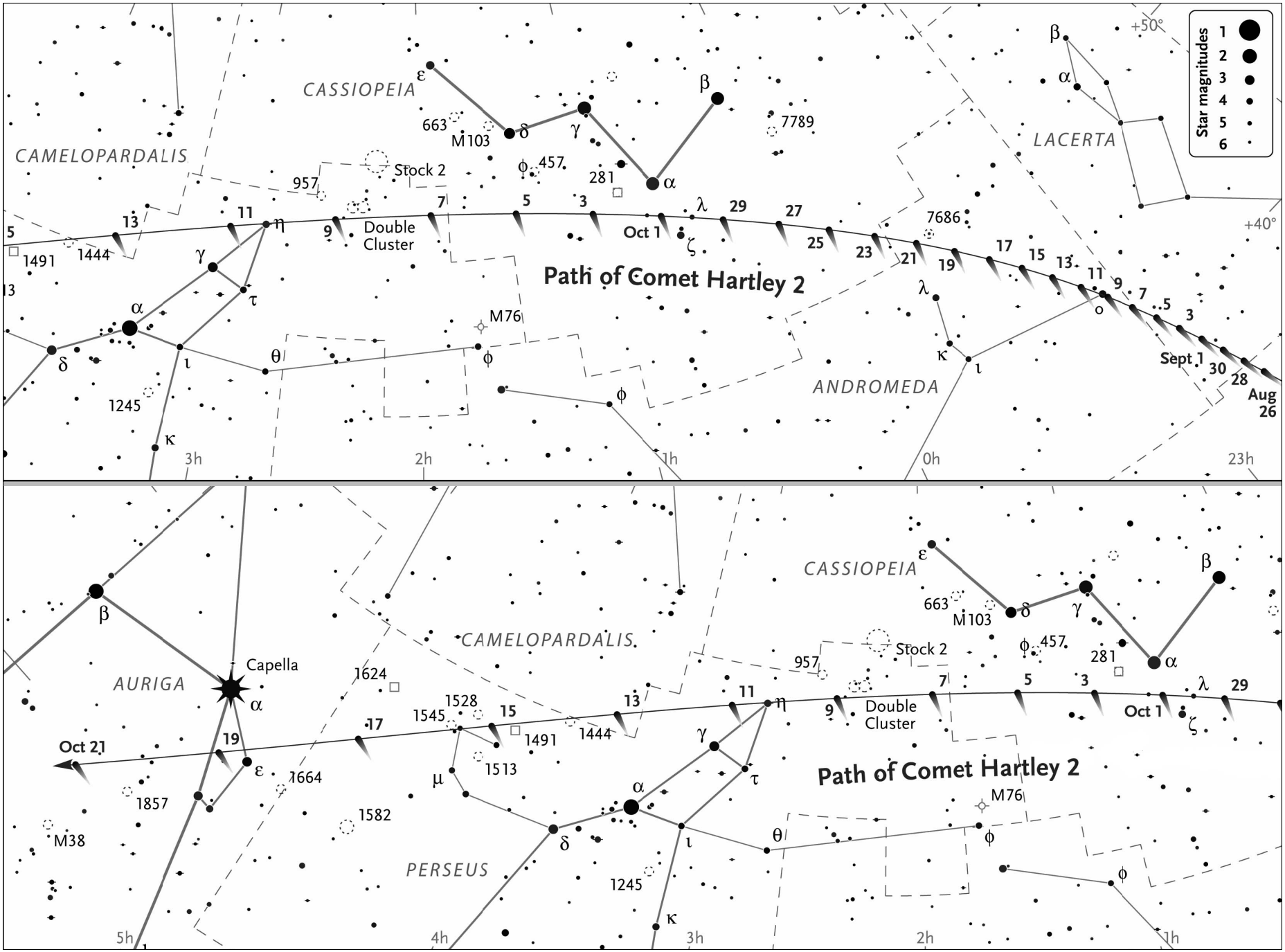
Mission: STS-133
Space Shuttle: Discovery
Launch Date: Targeted for Nov. 5, 2010
Launch Time: ???? EDT
Launch Pad: 39A
Landing Site: Kennedy Space Center, Fla.
STS-133 Description: Space shuttle Discovery will deliver the Express Logistics Carrier 4 (ELC4), a MultiPurpose Logistics Module (MPLM) and critical spare components to the International Space Station.
http://www.nasa.gov/missions/highlights/schedule.html

Space Shuttle Endeavor will fly in February 2011 as the last Space Shuttle flight.

Answer to the trivia question:

The answer is **B**. In the *Starry Messenger*, Galileo referred to his inventions as a **perspicillum**.

Credit*:* *http://en.wikipedia.org/wiki/Telescope*



Credit: http://media.skyandtelescope.com/images/CometHartley2-bw.jpg

2010 Membership Dues:

For the bargain price of only *$20.^{00} per family*, all this can be yours for the coming year!

- ✓ Meet with your fellow astronomy enthusiasts at least 10 times a year.
- ✓ Many opportunities to freeze/sweat/get bitten by mosquitoes in the Fakahatchee Strand.
- ✓ View planets, nebulae and many other celestial objects.

Don't miss out! Fill out this form (please print plainly) and send it with your $20 check, payable to:

Everglades Astronomical Society
P.O. Box 1868
Marco Island, Florida 34146

Name: _____
Address: _____
Phone: _____
Email: _____